

UNIVERSITY OF KWAZULU-NATAL

**Attributes of audit committee and real activities
manipulations of Nigerian quoted companies**

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Doctor of Philosophy**

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2020

DECLARATION

I, **Gabriel Samuel**, declare that

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ABSTRACT

This study investigated the impact of audit committee attributes on real activities manipulation (RAM) among listed companies in Nigeria. The study covered 14 years, from the year 2001 to 2014, and covered 74 listed firms. The study adopted a multimodel approach, using both primary and secondary data sources by firstly conducting a regression analysis, and secondly, using survey research to evaluate the results of the panel data regression analysis which provided a triangulation of the results.

Relevant data (both financial and non-financial) were sourced from the annual reports of the sampled Nigerian companies using the INET BFA, Nigerian Stock Exchange (NSE) Factbooks, NSE libraries, Securities and Exchange Commission (SEC) library, sampled companies' websites (for soft copies of published annual reports) and responses to questionnaires administered on all the current audit committee members of the sampled firms. The study investigated three types of RAM, which included sales manipulation, discretionary expenses manipulation and production cost manipulation. The aggregate or composite value of all three types formed the dependent variable of the study. Six audit committee attributes were investigated as independent variables: independence, financial literacy, frequency of meetings, multiple directorships, female directorships, and size.

The study used both panel and logistic regressions in analysing the data. The results showed the prevalence of all the three types of RAM among listed firms in Nigeria. Both results (panel regression analysis and the logistic regression analysis) confirmed that manipulations of sales and discretionary expenses are the dominant nature of RAM. The results from the panel analysis indicated that three of the attributes, *vis a vis*, independence, frequency of meetings and female directorships are essential audit committee attributes that can constrain RAM practices. On the other hand, the logistic regression results also revealed that two attributes, independence, and frequency of meetings could significantly impact RAM. Audit committee independence and frequency of meetings are the attributes that have a negative significant influence on RAM in both results. The SEC (2003, 2011) codes were all not statistically significant in the panel regression results except in the logistic regression result.

Therefore, the study recommends that audit committee members' independence should be enhanced, and that the audit committees of other relevant agencies should give more

attention to the cash flow analysis of companies to curtail the rising manipulation through sales among listed companies in Nigeria.

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LIST OF ACCRONYMS

ab_cfo:	Abnormal Cashflow
ab_disx:	Abnormal Discretionary Expenses
ab_prod:	Abnormal Production
ACFDR:	Audit Committee Female Directorships
ACFLT:	Audit Committee Financial Literacy
ACIND:	Audit Committee Independence
ACMDR:	Audit Committee Multiple Directorships
ACMTG:	Audit Committee Frequency of Meeting
ACSIZE:	Audit Committee Size
ADQLT:	Audit Quality
ANAN:	Association of National Accountants of Nigeria
ANT:	Actor-Network Theory
BDIND:	Board Independence
BOFIA:	Banks and Other Financial Institutions Act
BRC:	Blue Ribbon Committee
CAC:	Corporate Affairs Commission
CAMA:	Companies and Allied Matters Act
CAN:	Certified National Accountant
CBN:	Central Bank of Nigeria
CEO:	Chief Executive Officer
CFO:	Chief Financial Officer
DISX:	Discretionary Expenses
FGLS:	Feasible General Least Squares
FRCN:	Financial Reporting Council of Nigeria
FRMGW:	Firm Growth
FRMLV:	Firm Leverage

FRMSZ:	Firm Size
GCI:	Global Competitive Index
GDP:	Gross Domestic Product
IA:	Insurance Act
ICAN:	Institute of Chartered Accountants of Nigeria
IFRS:	International Financial Reporting Standard
INED:	Independent Non-Executive Director
ISA:	Investments Securities Act
LM:	Lagrange Multiplier
MSME:	Micro, Small and Medium Enterprise
NAICOM:	National Insurance Commission
NCC:	Nigerian Communication Commission
NCCG:	Nigerian Code of Corporate Governance
NDIC:	Nigeria Deposit Insurance Corporation
NED:	Non-Executive Director
NIPC:	Nigeria Investment Promotion Commission
NSE:	Nigeria Stock Exchange
OECD:	Organisation for Economic Co-operation and Development
OLS:	Ordinary Least Squares
PCSE:	Panel-Corrected Standard Error
PenCom:	Pension Commission
PFA:	Pension Fund Administrator
PFC:	Pension Fund Custodian
PROD:	Production
PwC:	PricewaterhouseCoopers
R&D:	Research and Development
RAM:	Real Activities Manipulation

RDT:	Resource Dependency Theory
REM:	Real Earnings Management
SEC:	Securities and Exchange Commission
SL:	Sales
SOX:	Sarbanes Oxley Act
TA:	Total Asset
UK:	United Kingdom
US:	United States of America
VIF:	Variance Inflation Factor
WEF:	World Economic Forum

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This thesis examined the relationship between audit committee attributes and real activities manipulation (RAM). Specifically, the sample comprises of 74 listed firms on the Nigerian Stock Exchange (NSE) that remained continuously listed, between 1999 and 2014 (giving a total of 1036 firm-year observations), it achieved three major objectives. Firstly, it ascertained the prevalence of RAM in companies listed on NSE. Secondly, the study determined the impact of audit committee attributes *vis-à-vis* independence, financial literacy, frequency of meeting, female directorships, multiple directorships and size on RAM among listed companies in Nigerian, that is, ascertained if on average, better-governed Nigerian listed firm tend to avoid RAM practices. Thirdly, the thesis established the effect of introducing the code of corporate governance by the Nigerian Securities and Exchange Commission (SEC) in 2003 and its review in 2011 on RAM. Two sources of data, that is, secondary and primary sources provided the required data for the study. The study is grounded in the positivist paradigm, and it employed methodological triangulation (within-method triangulation) to examine the impact of audit committee attributes on RAM among listed firms on NSE.

Earnings manipulation in the opinion of Cupertino, Martinez, and da Costa Jr (2016) is a management decision taken to utilise accounting principles and methods or to tilt operating decisions or activities to meet specific earnings targets in relation to the published financial statements. There are two forms of earnings manipulations identified in empirical literature, through real activities and accruals (Chan, Chen, Chen, & Yu, 2015; Cohen, Dey, & Lys, 2008; Enomoto, Kimura, & Yamaguchi, 2015; Watts & Zimmerman, 1990). The manipulation through accruals entails the choice of appropriate methods of accounting to achieve the desired earnings threshold (also called, accounting-based management of earnings), and the RAM uses the magnitude and timing of operating decisions to attain targeted earnings, it is also referred to as real earnings management (REM). Most prior studies focused on earnings manipulation through accruals, which is easily detectable by the auditors (Cohen, Dey, *et al.*, 2008; Cohen & Zarowin, 2010; Sun & Rath, 2010), that has significantly changed as managers engage more in RAM practices recently (Mellado & Saona, 2019). Hassan and Ibrahim (2014) observed that manipulation of earnings does not only occur through accruals, but that it is also occurs by taking or shifting operational actions that position

earnings in the desired direction. Roychowdhury (2006) defines RAM as actions taken by management that depart from usual business operations, initiated with the primary motive of achieving specific earnings targets.

In the academic literature, manipulation of earnings is an essential and vital subject (Sun & Rath, 2010; Vakilifard & Mortazavi, 2016). The sole reason for this desire is that earnings serve diversity of purposes, such as in obligatory business contracts, for example, debt covenants (Vakilifard & Mortazavi, 2016), valuation of assets, executive bonus plan and remunerations, for example, executive equity compensation (Mans-Kemp & Viviers, 2018; Shrieves & Gao, 2002). Therefore, accounting data, as observed by Ge (2009), provided information that is essential and used by diverse stakeholders. The numbers reported, for example, are used by creditors to assess the financial wellness of a firm, its viability and credibility (Ge, 2009; Vakilifard & Mortazavi, 2016). Similarly, earnings are used by shareholders to examine firm performance. Although, their observations on a firm's performance may not be accurate if they do not recognise and adjust for the influence of earnings manipulations inherent in the published financial statements (Vakilifard & Mortazavi, 2016). The embedded manipulations will become apparent in the subsequent results when the firm's performances do not align with their observed estimates.

Manipulations affect earnings quality, by concealing the fundamental economic transactions (Cupertino *et al.*, 2016). When mechanisms of corporate control such as audit committee, regulatory authorities, auditors, and others are ineffective, then management have the opportunity to manipulate earnings to hit specific targets related to reported financial statements (DeFond & Zhang, 2014; Healy & Wahlen, 1999; Vakilifard & Mortazavi, 2016), for example attaining analysts' expectations, avoidance of losses, growth persistency or smoothening the levels of reported earnings (Bergstresser & Philippon, 2006; Lee, 2011; Xu, Taylor, & Dugan, 2007).

Evidence abounds that managers indulge in discretionary accrual-based earnings manipulation, without cash flow consequences on the company (Chung, Firth, & Kim, 2005; Cupertino *et al.*, 2016; Darmawan, Sutrisno, & Mardiaty, 2019; Nazir & Afza, 2018). However, there are findings as well that manipulation of earnings can be achieved through real activities, that is, by acting in the manner that deviates from regular operational practices (Cupertino *et al.*, 2016; Roychowdhury, 2006). In Nigeria,

the studies on RAM prevalence have received little attention, with research limited to few studies, such as Hassan and Ibrahim (2014), Okolie (2014b), and Bello, Ibrahim, and Kargi (2015). Primarily, most of the earnings management/manipulation research studies in Nigeria concentrated on accruals manipulation (Hassan & Ahmed, 2012; Kibiyaa, Ahmada, & Amrana, 2016; Majiyabo, Okpanachi, Nyor, Yahaya, & Mohammed, 2018; Moses, 2019; Samuel, 2012).

An audit committee is among the essential internal governance monitoring mechanisms available to the corporate boards in fulfilling its mandate effectively (Ali & Kamardin, 2018). However, the activeness of audit committee relies on the members' effectiveness (Ali & Kamardin, 2018). Sun, Lan, and Liu (2014) summarise that existing literature submits that audit committees' several attributes may impact the committee's effectiveness in its oversight functions over the process of financial reporting quality. The roles of audit committee in corporate governance in the opinion of Huang and Thiruvadi (2010), is of much interest to regulators and the public.

The audit committee's function earlier was corporate disclosure and financial reporting oversight for public firms (Dobija, 2015). However, much later, the US SEC, Public Company Accounting Oversight Board (PCAOB) and Blue-Ribbon Commission (BRC) made the committee's role more pronounced due to several economic occurrences that shock the aplomb of the financial markets and the firmness of investors' confidence. The Sarbanes-Oxley Act (SOX) of 2002, also called the Public Company Accounting Reform and Investor Protection Act, because of several corporate accounting scandals, emphasised the significance of an active and productive audit committee by increasingly modifying the composition and membership specifications (Cohen, Krishnamoorthy, & Wright, 2010; Dobija, 2015; Huang & Thiruvadi, 2010; Marx, 2008). Huang and Thiruvadi (2010) reported that SOX had included several recommendations of BRC to expand the committee's operational effectiveness, efficiency and independence. The recommendations of BRC, among others, require that the oversight, compensation, and appointment of the external auditors be the responsibility of the audit committee.

The audit committee's effectiveness as investigated by several prior studies (Hassan, 2011; Hassan & Ahmed, 2012; Klein, 2002a; Vafeas, 2005) concentrated on its ability to curb opportunistic use of accruals in massaging the financial statements and fail to

consider that management may alter operating activities to meet earnings targets. However, research into the association between audit committee attributes/characteristics and RAM/REM as observed by Sun *et al.* (2014), Garven (2015), Inaam, Khmoussi, and Fatma (2012) are limited. Furthermore, there is evidence that executives opt for RAM in place of accruals manipulation (Cohen & Zarowin, 2010; Eldenburg, Gunny, Hee, & Soderstrom, 2011; Roychowdhury, 2006), yet few investigations have been conducted in this regard. In Nigeria, there are only two studies on audit committee attributes and RAM practices (Bello *et al.*, 2015; Hassan & Ibrahim, 2014), and this is a gap that warrants more studies. It is this gap that this research sought to fill.

1.2 Background to the research

RAM has a severely detrimental effect on the growth and survival of an organisation. Martínez-Ferrero (2014) and Martínez-Ferrero, Garcia-Sanchez, and Cuadrado-Ballesteros (2015) submitted that quality financial reporting is the responsibility of the firms' management. It is a valid evidence for its efficiency and effectiveness, in using the corporation's assets judiciously to accomplish the utmost objectives and expectations of the long-term goal of the firm and the maximisation of the commonwealth of all the stakeholders.

The financial reporting of a firm is essential to management and other stakeholders such as shareholders, debt holders and the government as it is the reflection of its worth and image (Fung, 2014). In the opinion of Trainer (2015), four reasons exist that influences managers to manipulate earnings, they are, (1) their bonuses and job security depend on it, most executive compensations are tied to attaining specific performance target, (2) they want to lower the bar, several instances of earnings manipulations involve firms decreasing their earnings by inflating the reserves at periods of bumper harvest, (3) everyone-else-is-doing-it, it becomes a normative syndrome, since executive performance measures rely significantly on making comparisons with a company's peer group, it creates a sort of rat-race of financial mismanagement, and (4) the executives' accountability level is too low, executives scarcely face regulatory repercussions or the investing public consequences when they engage in earnings manipulation. On the regulatory side, weak enforcement is so endemic that they seldom refund the bonuses they earned from false earnings.

Sellami (2015) identified three types of incentives to manipulate earnings, (1) capital market incentives, that is, to avoid reporting losses, meeting analyst forecasts, to mention just a few, (2) opportunistic incentives, this is divided further into contractual (agency) incentives and personal (self-serving) incentives, and (3) incentives from the inherent benefit of manipulation through real activities over that of accrual-based.

Sanad, Shiwakoti, and Kukreja (2019) and Talbi, Omri, Guesmi, and Ftiti (2015) observed that two peculiar reasons exist that makes managers manipulate earnings: firstly, the financial market pressures and the contractual constraints (Healy & Wahlen, 1999; Watts & Zimmerman, 1990), and secondly, to boost valuations, while averting negative regulatory and contracting consequences (Graham, Harvey, & Rajgopal, 2005).

The fundamental issue is the fact that there exist incentives to manipulate real activities. Previous studies identified two alternative methods of earnings manipulation, through accruals and by real activities (Eldenburg *et al.*, 2011; Fabrizi & Parbonetti, 2017; Gunny, 2005; Roychowdhury, 2006; Srivastava, 2019; Talbi *et al.*, 2015; Zang, 2012). Accruals manipulation has been studied extensively, while RAM has remained mostly an unexplored area (Li, 2017; Roychowdhury, 2006; Srivastava, 2019; Zhou, Wang, Zhang, & An, 2018).

According to Roychowdhury (2006), there is a reasonable indication that manipulations of earnings are by the management's actions. A way of doing this is by the management of accruals without any direct effect on cash flow, such as postponement of asset write-offs and under-provision of bad debt; however, manipulation of real activities affects cash flows and at times, accruals. Roychowdhury (2006) also noted that many studies on manipulations of earnings concentrated on abnormal accruals' detection. Studies that observe manipulations of real activities directly have focused more on investment activities, like cutting down research and development (R&D) expenditures rather than examining operational cash-flow, discretionary expenditures and production cost, variables that would reflect the effect of real operational activities better than accruals and this has received little attention to date.

There exists evidence as observed by Short, Keasey, Wright, and Hull (1999) and Lincoln and Adedoyin (2012) to assert that good corporate governance encourages accountability, disclosure, and transparency, which are essential ingredients in promoting the growth of many developing countries. There exist an interdependent relationship amongst the

audit committee and corporate governance, irrespective of how the audit operation is perceived (as being external or internal) to corporate governance (Elnafabi, 2019; Herdan, 2008; Okolie, 2014a; Raghunandan, Rama, & Read, 2001). Sun *et al.* (2014), summarising that extant literature, submits that multiple attributes of an audit committee could affect the committee's effectiveness in overseeing financial reporting process. Inaam *et al.* (2012) observe that there is little research into the relationship between attributes of audit committee and RAM. However, other literature suggests that audit committee's characteristics are critical to its effectiveness (Abbott, Parker, Peters, & Raghunandan, 2003). Earlier studies of Carcello, Hermanson, and Neal (2002) and Abbott, Parker, and Peters (2004) emphasised that audit committees should consist of independent members, of whom some should possess financial expertise and for the committee to meet frequently to improve its effectiveness. Two monitoring advantages, in the opinion of Okeyide (2018) are achievable from having audit committees, which include, board efficiency and independence.

Nigeria has its share of the crises and incidences of monumental corporate fraud and failures. The corporate environment before the introduction of code of Best Practices of Corporate Governance by the Nigerian Security and Exchange Commission (SEC) in 2003 was characterised by several corporate scandals and subsequent failures (Adeyemi, 2011; Adeyemi & Olowu, 2013). The period from 1952 to 1958 saw the first round of bank failures while another round of bank failure occurred between 1994 and 2003. In 1997, significant incidences of financial and accounting scandals included the collapse and liquidation of 26 banks. The number of banks classified as distressed during this period, and eventually liquidated increased from 8 to 52 by the Nigeria Deposit Insurance Corporation (NDIC) (Adeyemi, 2011; Adeyemi & Olowu, 2013; Okolie, 2014a; Okolie, Izedonmi, & Enofe, 2014).

The desire to promote and develop good corporate governance in Nigeria led the SEC to set up the Atedo Peterside Committee in 2003. The report of the committee gave birth to the first comprehensive code of best practices for public companies in Nigeria. It was an effort to restore the faith and confidence of the investing public. The World Bank in 2004 and subsequently 2010 at the instance of the Federal Government of Nigeria, conducted thorough studies of listed companies in Nigerian intending to strengthen the institutional framework underpinning accounting and auditing practices and enhance financial reporting in Nigeria. The findings revealed deficiencies in Nigerian financial

reporting practices (ROSC, 2004, 2011). Adeyemi (2006), Okoye and Ofoegbu (2006), Adeyemi (2007) and Adebayo, Ibrahim, and Yusuf (2014) also investigated the disclosure practices by listed Nigerian companies empirically. Their observations also revealed weak and inadequate corporate reporting practices.

The Cadbury (Nigeria) Plc accounting scandal, which came to the fore in 2006 is one of the most significant corporate failure in Nigeria (Nwogwugwu, 2006). This scandal was described as Nigeria's Enron parallel (in terms of its magnitude). According to Uwuigbe (2013), Cadbury had to restate its 2006 financial statements to indicate losses of about two billion Nairas as well as restating its balance sheet by about 15 billion Nairas. The auditors, Akintola Williams Deloitte (one of the big four audit firms) were accused, by the Nigerian SEC, of failure to exercise due diligence and lack of professional scepticism in carrying out the audit of the company, among other things (Uwuigbe, 2013). In 2005 shortly before the scandal was made public, Cadbury (Nigeria) Plc was declared Nigeria's most esteemed company and its chief executive considered as Nigeria's most respected Chief Executive Officer (CEO) (Adeyemi, 2007).

The Afribank Nigeria Plc corporate scandal is closely related to that of Cadbury (Nigeria) Plc. Its financial statements revealed high profits amid accusations of gross manipulations (Mmadu & Akomolafe, 2014). Other cases of alleged corporate failures after 2003 SEC introduction of the code of corporate governance in Nigeria include Ile-Oluji cocoa products, Standard Printing and publishing company, African Petroleum Company, Lever Brothers (Nigeria) Plc and Union Dicon Salt (Bakre, 2007; Otusanya & Lauwo, 2010).

Fraudulent financial reporting has dire consequences for the economy of any nation. Its effect on the investing public and the wider society can never be over-emphasised. A colossal amount of money is lost yearly by investors as a result of corporate fraud and eventual collapse (Okaro, Okafor, & Ofoegbu, 2013). Bakre (2007) revealed that Nigerian investors had lost several billions of Nairas due to falsification and deliberate manipulations of accounts by corporate entities. For example, the Cadbury (Nigeria) Plc saga affected the price of its share, which nose-dived from an all-time high of ₦65.52 in December 2005 to ₦8.65 as at October 2009. As a consequence of the manipulated accounts, the holding company, Cadbury Schweppes Plc, had to make a provision of

£15million as impairment of the goodwill held in respect of Cadbury Nigeria Plc in 2006 (Solanke, 2007; The Citizen, 2013).

The severity of manipulations in Spring Bank Plc in 2008 led to the removal of 13 members of its board with the approval of the Central Bank of Nigeria (CBN). It was an acknowledgement of the bank's liquidity problem and the gradual erosion of its shareholders' fund. In 2009, the Nigerian 'Capital Market Report' revealed that because of poor corporate governance, the Nigerian Capital Market ranked among the worst in 2008 (Aina & Adejugbe, 2015).

The many cases of non-performing loans described as a 'Tsunami' in 2009 among the banking industry in Nigeria, consumed banks such as Afribank Plc, Intercontinental Bank Plc, Bank PHB, Oceanic Bank Plc and Fin bank (Mmadu, 2012; Sanusi, 2010). These developments led to the significant review of corporate governance regulatory reforms both in Nigeria and some other developed economies, which focused on the structures and effectiveness of the audit committee, so that financial reporting quality can be improved (Adeyemi, Dabor, & Okpala, 2012).

There are quite a lot of measures taken in Nigeria, to strengthen audit committee as a corporate governance mechanism and to promote quality financial reporting devoid of earnings manipulations; foremost is the formation of an audit committee which is a statutory recommendation of the Companies and Allied Matters Act (CAMA). The external auditor, aside from providing members with an audit report, shall also provide a report to an established public company audit committee (section 359 (3), CAMA, 1990, 2004). The composition is as in Section 359 (4-5), CAMA, (1990, 2004), and the functions as in Section 359 (6), CAMA (1990, 2004); the functions are extended further by the SEC (2003, 2011) Codes.

The Federal Government established the Financial Reporting Council of Nigeria (FRCN) through the enactment of the Financial Reporting Council of Nigeria Act 2011. It announced the adoption of the International Financial Reporting Standards (IFRS) from January 1, 2012, for all listed companies. It is a significant move by the government to advance the course of corporate governance in Nigeria. In other words, the FRCN, through its Directorate of Corporate Governance, has the responsibility to ensure good corporate governance in Nigeria (Okike, 2007; Aina & Adejugbe, 2015;

Okike, 2007). Aina and Adejugbe (2015) submit that the Directorate would overhaul the corporate governance framework in Nigeria.

The Nigerian corporate governance framework is without substance in terms of standard, content, and constant reviews when compared to those in other developed countries like the United Kingdom (UK) and the United States (US), among others (Aina & Adejugbe, 2015; Nakpodia, Adegbite, Amaeshi, & Owolabi, 2018). The Directorate needs to make more proactive reforms (Aina & Adejugbe, 2015). With a series of highly publicised corporate scandals, corporate governance has attracted concerns from both academia and other stakeholders (da Costa, 2017; Dibra, 2016; Tshipa, 2017) both in Nigeria and in other nations of the world. Some corporate scandals in other countries are Enron, Global Crossing and Worldcom in the US; Parmalat, Ahold, Gescartera and BBVA in Europe; Allied Nationwide Finance in New Zealand; Transmile in Malaysia; Daewoo in Korea; and Leisure-net and Regal bank in South Africa (Coffee, 2008).

Corporate governance is all-encompassing as it concerns the way and manner in which corporate entities are managed and regulated. It involves accountability, trust, honesty and stewardship on one side then supervision, control, monitoring, oversight, and ensuring quality financial reporting on the other. In the US, Levitt, the former SEC chairman, opined that it is necessary to create an enabling environment and support to the audit committee as a way of improving the veracity and value of financial reporting (Levitt, 1998). He is of the view that in corporate governance, the most dependable custodian of the public interest should be a skilled, devoted and resilient audit committee.

Aanu, Odianonsen, and Foyeke (2014) observed that more responsibilities are on the audit committee as a result of the reported cases of financial frauds and corporate governance failures that were ravaging the Nigerian corporate environment. These responsibilities will ease information asymmetry, which is a usual agency problem existing between the owners (principal) and corporate management (agents).

In the opinion of Okeyide (2018), agency theory provides that effective monitoring of management is achievable with diverse directors. Wakaba (2014) reported that agency theory, which delegates managerial responsibilities to the agent by the principal, needs mechanisms that will align the principal's interest with that of the agent or oversee the

managers' performances to ensure that the delegated powers are used in the principal's best interests. There are studies that agree empirically that the role of audit committee is central to the reduction of agency problems (Choi, Jeon, & Park, 2004; Kipkoech & Rono, 2016; Krishnan, 2005).

Other measures include the inclusion of female directors on the corporate board and subsequently in audit committees (IFC, 2019; Lincoln & Adedoyin, 2012; Sotola, 2019). Board diversity is capable of reducing nepotism, as observed by Okeyide (2018) and Lincoln and Adedoyin (2012), in that it promotes fairness and ensures that the interests of various stakeholders are well represented when making corporate decisions. In 2011, the UK government commissioned Lord Davies to review the current situation regarding gender on boards of listed companies. The published report, *Women on Boards*, recommended that a higher proportion of female directors should be on the corporate boards of FTSE 350 firms. The FRC included the recommendations of this report on board diversity into the UK Corporate Governance Combined Code (2012) (Lincoln & Adedoyin, 2012).

There is a constitutional provision in Nigeria on equality law under Section 17(2)(a) Constitution of FGN (1999), the National Gender Policy established in 2006. There is a recommendation by the SEC (2011) code that publicly listed companies should consider gender composition when selecting board members, and the CBN regulation on quota system has been adopted in the banking sector (Şener & Karaye, 2014) to achieve a 30% women representation in the corporate boards as well 40% female representation in top management positions. All these measures are steps taken in Nigeria to achieve accountability, transparency and good corporate governance, especially in firms listed on the NSE.

However, empirical evidence reveals that corporate scandals and fraudulent financial reporting still exist (Hassan & Ahmed, 2012; Nwaobia, Kwarbai, & Olamide, 2019; Okolie, 2014b). There are quite a lot of studies on audit committee attributes/characteristics and accrual-based earnings manipulation, but to date, only a few (Bello *et al.*, 2015; Hassan & Ibrahim, 2014) have examined audit committee attributes and earnings manipulations through real activities (Tables 4.2 and 4.3 in Chapter four). This thesis will extend existing knowledge on the audit committee attributes and RAM generally and specifically in listed companies in Nigeria.

1.3 Motivations for the study

Several motivations justify the significance of this study. First, high profile incidences of corporate scandals in Nigeria and in other part of the world have raised considerable interest among stakeholders about the quality of financial report emanating from corporate entities. The SEC in 2003 introduced a code of corporate governance for public companies in Nigeria and later reviewed it in 2011, all in an effort to safeguard and protect investors and other stakeholders from corporate scandals and to instil sanity and confidence in corporate Nigeria. To improve and encourage maximum standards of financial reporting and international best practices of corporate governance, the Nigerian government enacted the Federal Reporting Council of Nigeria (FRCN) Act 6, 2011, among several other measures as indicated in the background to this study. In 2018, the FRCN introduced the *Nigerian Code of Corporate Governance* (NCCG) (more on this are discussed in Chapter 2 of this study). Therefore, this study is timely, since effectiveness of audit committee as veritable mechanism of corporate governance in ensuring transparent financial reporting devoid of manipulations is critically desirous.

Second, it uses six audit committee attributes to evaluate their impact on RAM prevalence, whereas prior studies used four audit committee attributes/characteristics each. For example, both Hassan and Ibrahim (2014) and Bello *et al.* (2015) used the same attributes of audit committee, that is, independence, financial literacy, size, and meeting frequency to investigate the impact audit committee attributes on RAM. The use of six attributes is an effort to extend the existing knowledge from prior studies.

Third, it assesses the impact of audit committee gender on RAM. None of the prior studies examined the audit committee gender effects on RAM. Gender issues attract great interest in corporate governance research (Huang & Thiruvadi, 2010). The Nigerian government is passionate about eradicating gender biasedness when it enacted an equality law, a constitutional provision in S.17(2)(a) Constitution of FGN.

Fourth, it investigates 74 listed firms as sample size across all the non-financial sectors in the Nigerian capital market (10 out of 11 sectors were studied). Prior studies used the manufacturing sectors only. The two prior studies, Hassan and Ibrahim (2014) and Bello *et al.* (2015) both used 20 listed firms from the manufacturing sectors as their sample size. The use of 74 listed firms was borne out of the desire to widen the

coverage and deepen the existing knowledge by investigating all the listed non-financial firms in Nigeria especially those that satisfy the criteria set out in this study.

Fifth, this study uses data covering 16 years, between 1999 and 2014 of companies consistently listed on NSE. Prior studies covered only six years each. Hassan and Ibrahim (2014) covered the period between 2007 and 2012, while Bello *et al.* (2015) covered the period between 2008 and 2013. The motivation for extending the scope is premised on the desire to include the regimes of the two SEC codes of corporate governance to investigate the impact they have had on RAM.

Sixth, it uses a multimodel research approach through methodological triangulation by collecting and analysing the secondary data in the first phase and after that collecting the primary data through questionnaires administered on only audit committee members that were currently serving in the sampled companies. Prior studies, Hassan and Ibrahim (2014) and Bello *et al.* (2015), used a mono-method research approach by collecting and analysing only the secondary data. This research approach, although it belongs to the positivist paradigm just like the other similar prior studies mentioned, extends the existing body of knowledge through a methodological triangulation with all its benefits.

Finally, the outcome of this study will benefit a number of groups. Regulators, such as the SEC, NSE, and FRCN, will benefit by making an assessment of some rules and guidelines on audit committees and the effectiveness of the codes of corporate governance in mitigating incidences of manipulations in financial reporting. Further, corporate organisations will benefit by way of gaining more knowledge on whether certain attributes will enhance the effectiveness of their audit committees.

1.4 Problem statement

Manipulation of reported earnings is in two-fold, firstly, manipulation of accruals without cash-flow consequences. Examples are delaying asset write-offs and under-provisioning for bad debt expenses. The other form of manipulation is that of real activities during the year to meet short-run earning thresholds. It has a direct implication on the investing public who rely on corporate reports to make sound and critical investment decisions. The effect is devastating not only on the affected company but also to the capital market and consequently the growth and development of the economy.

In Nigeria, the Cadbury (Nigeria) Plc account overstatement (through manipulation of discretionary expenses) amounting to thirteen billion Nairas (₦13b) which spanned through 2002 to 2006 before its exposure by an investigative team of PricewaterhouseCoopers. This scandal led to the exit of the Chief Executive Officer (CEO), Mr Bunmi Oni and the Chief Financial Officer (CFO), Mr Ayo Akadiri respectively, (Ogiedu & Odia, 2013). Other falsified financial reporting cases in Nigeria include that of Afribank Plc, Standard Printing and publishing company, Union Dicon Salt, African Petroleum Company, Ile-Oluji cocoa products, and Lever Brothers (Nigeria) Plc (Ajayi, 2006; Bakre, 2007; Otusanya & Lauwo, 2010; The Citizen, 2013). The audit committee is one of the veritable corporate governance mechanisms that have its formation and powers included in the various codes and corporate Acts. In Nigeria, the introduction of the various codes of corporate governance strengthens financial reporting quality of public companies (Aina & Adejugbe, 2015).

There are few studies on audit committee attributes and RAM in Nigeria; the few available studies focused on manufacturing sectors only. There are quite a lot of incentives for the management of firms to engage in RAM rather than accruals manipulations. These incentives are discussed in the background to this study and under the literature review. This study therefore extends existing knowledge by investigating this phenomenon by considering all the listed companies on the NSE for the periods between 2001 and 2014. It considers all the industries in the economy except the financial industry (because of some peculiarities of the sector). This study uses a multimodel research approach using STATA, a statistical tool in conducting the regression analysis. The motivation for this study, as stated earlier, is because of the rarity of studies on audit committee attributes and RAM in Nigerian listed companies. Although several studies exist on this in the developed countries, there are still relatively few studies in developing countries, especially in Nigeria.

1.5 Objectives of the study

The study's main objective is to empirically examine the effect of audit committee attributes on real activities manipulations in Nigerian listed companies, as impacted by the introduction of the codes of corporate governance. The specific objectives are

- To ascertain the prevalence of RAM in Nigerian listed companies.

- To determine the impact of audit committee attributes *vis-à-vis* independence, financial literacy, frequency of meeting, female directorships, multiple directorships and size on RAM in Nigerian listed companies.
- To establish the effect of introducing the code of corporate governance by the Nigerian SEC in 2003 and its review in 2011 on RAM.

In particular, the study aimed at clarifying and contributing to the existing body of knowledge concerning audit committee attributes and RAM among companies listed on the NSE.

Achieving these objectives required a review of prior literature and adopting particular theory/theories to underpin the study, specifically agency and stakeholder theories have been chosen (Chapters 2, 3 and 4), and to empirically investigate the 74 listed non-financial companies on the NSE. The choice of suitable methodology for the empirical analyses is described in Chapters 5 (secondary data analyses) and 6 (survey data analyses), and the results thereof in Chapters 7 (panel data analyses results) and Chapter 8 (logistic regression analyses results). The empirical study involved an analysis of the annual reports and questionnaires administered to the audit committee members of all the sampled firms. Chapter 9 then focused on the findings and recommendations of the study and identified areas for further research.

Given the expected changes that would have occurred in the listed companies between the two regimes of the SEC Codes of corporate governance and the possible impact thereof on RAM, it is considered a worthwhile objective to investigate this phenomenon empirically. The next section provides the research questions which provide the foundation for the development of the questionnaire to be administered in generating the survey data.

1.6 Research questions

The following research questions assist in achieving the research objectives stated above.

1.6.1 Research question One

Is there RAM prevalence among companies listed in Nigeria?

1.6.2 Research question two

To what extent do the attributes of audit committee members (independence, financial literacy, size, frequency of meeting, and multiple directorships) impact on RAM in Nigerian listed companies?

1.6.3 Research question three

Does the introduction of the codes of corporate governance by the Securities and Exchange Commission (SEC) in 2003 and 2011 impact on RAM in Nigerian listed companies?

1.7 Scope and delimitation

This research covers all firms listed on the Nigerian Stock Exchange (NSE) as of December 31, 2014, which remained consistently listed from 1999 and having available data necessary for the study. In line with past studies, the study isolates banks and other financial institutions, since they belong to a regulated industry. The study spans a period of 14 years, between the years 2001 to 2014. It was the period when two separate codes of corporate governance were issued by the SEC to govern the operations and activities of firms listed on NSE and to boost quality financial reporting. The introduction of the first code was in 2003, and the second, which was a review of the first one, was in 2011 and extending the study to 2014 will give it a current status.

1.8 Thesis organisation

The entire thesis is in nine chapters, including the introductory chapter and the remaining parts are as stated hereunder. As revealed in this introductory chapter, this thesis examined the audit committee attributes and RAM in Nigerian listed companies.

1.8.1 Chapter 2: Nigerian country context

The chapter highlighted the country's historical development of corporate governance practices vis-à-vis evolution of the Acts, regulations and codes, the analysis of the growth and developmental efforts from independence till date. It discusses several challenges of Nigeria, just like any other economy in the world. It pinpoints the need to institutionalise the principles of best corporate governance practices by reviewing available Nigerian codes in the context of the thesis by comparing their provisions and recommended practices that can enhance audit committee attributes and combat or discourage RAM practices in Nigeria listed companies.

1.8.2 Chapter 3: Theoretical framework

This chapter discussed why a theoretical framework is necessary. It illustrated 12 theories used in the literature to examine issues relating to corporate governance. The theories illustrated are stakeholder theory, agency theory, stewardship theory, resource dependence theory, signalling theory, prospect theory, market myopia theory, transaction cost theory, role theory, power theory, actor-network theory, and managerial hegemony theory. Two theories, agency and stakeholder theories, were considered the most important in capturing the theoretical base of this study.

1.8.3 Chapter 4: Literature review and hypotheses developments

The chapter focused on the review of literature, hypotheses development and presenting the conceptual framework of the thesis. The chapter reviewed the previous empirical literature on these attributes of audit committee, independence, frequency of meetings, financial literacy, multiple directorships, female directorship, and size. Also, reviewed in the chapter is literature on the RAM proxies under investigation. Finally, a diagrammatic representation of the conceptual framework of the study was presented.

1.8.4 Chapter 5: Research methodology on secondary data analyses

The chapter focused on the research methodology adopted for secondary data regression and justifies the use of specific data collection techniques and research methods. Also, it discussed the dependent, independent and control variables with precise modalities for their measurement. Finally, it presented and discussed regression models used in testing the developed hypotheses of the secondary panel data regression analysis.

1.8.5 Chapter 6: Secondary data analysis and hypotheses testing

This chapter analysed the secondary data and tested the related hypotheses formulated in chapter 4. It highlighted and discussed the significant findings from the panel data regression analysis.

1.8.6 Chapter 7: Primary data research methodology

The chapter is on the research methodology adopted for the survey data regression and it justifies the specific research methods and data collection tool and techniques used. Also, it discussed the choice of logistic regression as the appropriate estimating technique for the survey data analysis.

1.8.7 Chapter 8: Primary data analysis and discussion of the survey findings

In this chapter, the analysis of the survey (primary) data and the testing of the formulated hypotheses in chapter four was presented. The chapter analysed the responses to the questionnaire using frequency tables. It also developed the variables of interest from the Likert scale items and subsequently used the same in the logistic regression analysis. The chapter reviewed controversy on using Likert scale data in the parametric analysis. It highlighted the significant findings from the logistic regression, and after that triangulated the results from both the panel data regression and that of the logistic regression analysis.

1.8.8 Chapter 9: Summary, conclusions and recommendations

The chapter presented the summary review of all the chapters and the significant findings of the study. Also identified and discussed are several recommendations, limitations, contributions, and future research opportunities.

1.9 Summary

This chapter, which introduces the study, highlighted the research background and introduced the research problem and research questions. It illustrated and highlighted the gap that exists in the literature and the rationale for the research. It also provided justification for the research by pointing out the dearth of empirical studies on the issue in Nigeria, its contribution to accounting literature, and its probable benefits to Nigeria. Lastly, it depicted and presented the road map of the study.

The next chapter outlines the Nigerian country context.

CHAPTER TWO: NIGERIAN COUNTRY CONTEXT

2.1 Introduction

The chapter focuses primarily on the historical evolution of the codes of corporate governance in Nigeria, their effects on corporate practices, and how they conform to international best practices. The relevance of this chapter is that no discussions on audit committee attributes and RAM would be complete without a link to its benefits in advancing or promoting better corporate governance practices through improved quality financial reporting. It is because of this that corporate governance codes are discussed vis-à-vis governance of corporations in Nigeria. The history and developments of codes of corporate governance cannot be isolated from corporate governance itself, and that of corporate governance cannot as well be disconnected from company law in general (Marshall, 2015; Ofo, 2013).

The 2008 global financial crisis, which started in the US mortgage industry, and subsequently affected other countries world over, brought economic misery and hardship across the world (Demaki, 2013b; Marshall, 2015). Before the meltdown, the return on investment in Nigeria was rated among the highest in the world by international rating agencies which include the Renaissance Group, Fitch, and the Economic Intelligence Unit (Demaki, 2013a). The effect of these crises brought changes concerning the regulatory policies on auditing, accounting, and the legal career world over, and particularly, how the accounting profession and entities should be governed (Marshall, 2015).

2.2 Legal and institutional structures

The Nigeria corporate governance structure depicts a blend of a statutory structure and subordinate legislature promulgated by the appropriate regulatory authorities. The classification of these laws is in two categories: inclusive/overall and sector-exclusive/specific laws. While the general legislations oversee all Nigerian firms, the industry-exclusive laws control only firms operating within their particular industry or sector. The general laws include:

- (i) the “Companies and Allied Matters Act” (CAMA) 2004; the CAC administers this Act,

- (ii) the “Investment and Securities Act” (ISA) 2007; this Act establishes the Securities and Exchange Commission (SEC) and empowers it with the authority of administration, and
- (iii) the “Financial Reporting Council of Nigeria Act” 2011; this Act also establishes the Financial Reporting Council of Nigeria (FRCN) and vested on it the authority of administration.

Oraegbunam and Ubanyionwu (2019) state that CAMA, as the principal statute, defines the overall corporate governance framework and regime in Nigeria. It defines the several forms and types of corporations that can be registered, which includes private companies limited by shares or by guarantee, unlimited companies and public companies limited by shares. The powers, structures, and duties of the various organs of a corporation along with the system of governing and managing the firm, and the qualifications of management are all listed in CAMA (Emmerich, Savitt, Niles, & Ongun, 2019). ISA, on the other hand, puts forward the statutory framework for regulating and operating the security market in Nigeria. It lays out the operating guidelines for security market stakeholders, operators, participants and the liquidity requirements (Emmerich *et al.*, 2019; Oraegbunam & Ubanyionwu, 2019).

Awoyemi (2009) notes that sectoral laws, such as the Insurance Act (IA) and the Banks and Other Financial Institutions Act (BOFIA), are among other corporate governance statutes. BOFIA is the primary edict that controls the banking industry. It identifies the administrative functions of the CBN under the CBN Act of 2007. It lists the criteria for approving a banking license and its revocation or similar variations. Likewise, the significant legislation overseeing insurance operations are the National Insurance Commission (NAICOM) Act and the Insurance Act. The NAICOM regulates and issues directives to insurance firms regularly, while the IA oversees the insurance business and regulates insurance, except insurance business operated by friendly societies, and by corporations, persons or bodies established abroad, which solely engages in reinsurance transaction with an authorised insurer under the IA (Emmerich *et al.*, 2019).

The corporate governance environment in Nigeria has several corporate governance codes pertinent to publicly listed firms and those that are sector-specific. The regulatory changes in Nigeria were through the various sectoral regulators issuing corporate governance codes which include, SEC (2003) *Code of Corporate Governance for*

Public Companies: CBN (2006) *Code of Corporate Governance for Banks Post Consolidation*; PenCom (2008) *Code of Corporate Governance for Licensed Pension Operators*; NAICOM (2009) *Code of Corporate Governance for Insurance Industry*; SEC (2011) *Code of Corporate Governance for Public Companies* which was amended in 2014; The Nigerian Communication Commission (NCC) (2014) *Code of Corporate Governance for Telecommunication Industry*; and the CBN (2014) *Code of Corporate Governance for Banks and Discount Houses in Nigeria, and Guidelines for Whistleblowing in the Banking Industry*. Recently the NCC reviewed its *Code of Corporate Governance for Telecommunication Industry* in 2016. The recommendations of this code were for the Telecommunications Operators and took effect from November 1, 2016. Finally, the FRCN in 2018 issued the *Nigerian Code of Corporate Governance* (NCCG).

The main objective of these regulations is to guarantee corporate disclosure, accountability, and transparency in companies' administration, thereby improving investors' confidence, shareholders' investment protection, and the flow of capitals both locally and internationally.

The next sections discuss the historical background of Nigeria, the measures taken by the government to ensure a better corporate governance environment and practices through legislation and regulations to improve the quality financial reporting to prevent fraudulent manipulations.

2.3 Historical background of corporate governance in Nigeria

The corporation idea is unfamiliar to the pre-colonial primitive business engagements in Nigeria. The British firms registered in England were the first to operate in Nigeria in the late 19th century and they were administered based on British ideology and law regarding corporate governance (Enyioko & Onwusoro, 2014). In 1912, the first Nigerian company law was enacted and was enforceable only in the Lagos colony. The Ordinance extended to the entire Country on the amalgamation of the Southern and Northern Nigeria in 1914. The Companies Decree (1922) repealed both 1912 and 1917 Ordinances (Bukola, 2009) and in 1968, a new Companies Decree to replace the Companies Ordinance (1922) was in force. The Companies Act (1968) as observed by Okike (2007) and Ogbamosa (2018) was a duplication of the UK Companies Act (1948), and as a federal law, it was listed in the Exclusive Legislative List of the 1979

Nigerian Constitution. The Nigerian Enterprise Promotion Decree (NEPD) (1977) and the Companies Act (1968) made extensive provisions for the first time on matters such as provisions mandating for accounts and directors' greater accountability and made inputs towards checking the excesses of company officers (Uzoечи, 2013). Nevertheless, this similarity with the UK's Companies Act meant that legislation in Nigeria did not resolve company legislative issues that were peculiar to the country's socio-cultural and political background. It also did not resolve the rapid commercial and economic developments of the country (Bukola, 2009).

In 1960 when the country gained independence, many factors affected the corporate governance direction in Nigeria. The most prominent perhaps were the dominant post-colonial ideological convictions which emphasised economic self-dependence (Ahunwan, 2002). It was understood fundamentally in relation to local control and ownership of the factors of production and operated in two comprehensive areas. Firstly, the outright control over public infrastructure, utilities, and provision of social services was imposed by the government through the establishment of state-owned corporations. Foreign investors, specifically British corporations, had an overwhelming interest in most of these areas, but the State excluded foreign ownership. Ahunwan (2002) asserted that activities in such areas as postal and telegraphic services, electricity generation and distribution, ports and shipping, air travel, and telecommunications, among others, were confined to fully-owned national corporations.

Secondly, the country encouraged local possession in other segments of the economy. There are two pieces of legislature that were vital in achieving this policy, that is, the Foreign Exchange Control Act (FECA) (1962) and the NEPD, No. 4 (1972), also called the "Indigenisation Decree". The FECA (1962) forbade the security creation or transfer by an individual residing abroad except permitted by the Minister of Finance (Ahunwan, 2002). The NEPD (1972), on its part, confined foreign ownership by establishing three schedules of enterprises, Ahunwan (2002) noted that these were: (i) enterprises wholly earmarked for Nigerians, (ii) enterprises in which foreign holdings cannot exceed 40% of the shares, and (iii) enterprises in which foreign holdings cannot exceed 60% (Sections 4, 5 and 6 NEPD, 1972). These classifications depended on the observed managerial and financial requirements of the country at the time. The first real local attempt to control corporations in Nigeria was through the Companies and Allied Matters Decree No 1 (CAMD) (1990) introduced by the then military administration

(Ogbamosa, 2018). The CAMD, being a military enactment, lacked stakeholders' inputs and as such parliamentary debates synonymous to the process of law-making were absent. Nevertheless, it could resolve several loopholes and lapses that characterised the 1968 Companies Act (Enyioko & Onwusoro, 2014). The CAMA established the CAC. The CAC has more authority and broader powers than the replaced company registrar; it regulates, supervises, and solves all matters relating to Nigerian corporations. The SEC (2003) code of corporate governance was introduced later to compliment the potency of the CAMA (Amao & Amaeshi, 2008; Wilson Jr, 2014).

In Nigeria, matters regarding the control, governance and regulation of business entities, as observed by Okougbo and Okike (2012), are primarily within the provisions of company legislation, that is, CAMD (1990). Okike (1994) confirmed Nigeria's effort in reflecting its unique political and socio-economic practices into company legislation, while Okike (2007) gave some intuition into the importance of the effort made by different institutions in ensuring effective accountability of Nigerian public firms.

Government institutions are becoming outdated because of poor governance and corruption (Asaju, Arome, & Mukaila, 2014). Infrastructure is in a poor shape, and in some places, it is non-existent. Trovalla and Trovalla (2015, p. 44) describe it as "infrastructure turns 'suprastructure'-a divination tool that gives clues about the Nigerian nation". The Global Competitiveness Index ranks Nigeria's infrastructure and institutions towards the bottom – 124 and 127 respectively out of 140 countries in 2018, as shown in Table 2.1. Bello-Schünemann and Porter (2017) assert that the inadequate supply of infrastructure is also the most significant constraint of doing business in Nigeria. The poor performance and rating indices of Nigeria by the World Economic Forum (WEF) for a decade (2008 - 2018) are shown in Appendix 8C. The institutional and infrastructural pillars of Nigeria in Appendix 8C ranked close to the worst performer (among participating economies) all through the years between 2008 and 2018.

The most significant drain on entrepreneurial development, productivity and competitiveness for business in Nigeria is the erratic power supply (Abdulganiy, Yinusa, & Abdulateef, 2016; Bagu, Dietz, Hanekamp, Phil-Ebosie, & Soremekun, 2016). Many businesses in the country and some private households use diesel standby generators to supply their required electricity, and this has a direct consequence on

service delivery and commodity prices (Abdulganiy *et al.*, 2016). About 86% of the companies in Nigeria own or share a generator which covers close to 50% of their electricity demand (Bagu *et al.*, 2016). Nigeria's ranking on electricity is weak, as revealed in Appendix 8C.

Institutional and infrastructural developments are essential to creating and ensuring corporate growth and well-being (WEF, 2018). The four principles of corporate governance as put forward by OECD, that is, fairness, transparency, responsibility, and accountability are universal and germane (OECD, 2015). These principles are easily implementable with sound institutions in place and the provision of adequate infrastructure. The WEF (2018) assert that economic agents are not comfortable investing in an atmosphere characterised by violence and fear, an environment requiring them to protect their properties and ensure the fulfilment of contractual obligations. The security situation in Nigeria is appalling as revealed by its ranking in global terrorism and corruption incidences (Appendix 8C). The activities of the insurgents and the wanton destruction of lives and properties in the country are worrisome.

The level of trust in the society will guarantee the attainment of investors' expectations on whether public institutions can guarantee a basic level of security and enforce property rights. The assurance of checks and balances, transparent, efficient, and strengthen prevailing business ethics with enhanced corporate governance standards are necessary (OECD, 2015). Institutions include formal, legally binding constraints (rules, laws, constitutions, and related enforcement mechanisms) and informal constraints as well, that is, norms of behaviour, conventions and voluntary codes of conduct (WEF, 2018).

Table 2.1 gives a picture of the corporate governance world ratings for 11 years based on the indicators of (i) strength of auditing & reporting standard, (ii) conflict of interest regulation, (iii) shareholders' governance, (iv) ethical behaviour of firms, and (v) strength of investors' protection) used by the WEF analysis. Nigeria has an average performance in the corporate governance world ratings except for the indicator on 'ethical behaviour of firms' where the rankings have remained poor consistently for almost a decade. For all the other corporate governance indicators, the performance shows consistent improvement over the years. The Nigerian government has adopted measures to ensure better corporate governance environment and practices through

enactments of regulations and establishment of institutions. Subsequent sections review these measures.

Table 2.1: Some corporate governance world ratings on Nigeria

YEAR	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Participating economies	134	133	139	142	144	148	144	140	138	137	140
Strength of auditing & reporting standards	82	102	130	126	113	106	NA	57	56	66	77
Conflict of interest regulation	61	79	107	89	89	108	NA	49	49	55	23
Shareholders' governance	56	70	117	108	91	101	NA	64	50	61	45
Ethical behaviour of firms	95	104	125	96	106	131	NA	123	117	119	NA
Strength of investors' protection	NA	NA	45	47	52	57	NA	55	20	31	NA
Institutional Pillar	106	102	121	111	117	129	129	124	118	125	127
Infrastructural Pillar	120	127	135	135	130	135	134	133	132	132	124

Note: NA = Not available

Source: World Economic Forum (2008 – 2018 Editions).

2.4 Defining corporate governance

There have been several efforts and attempts in defining the corporate governance concept by different organisations, theorists, and scholars, which have enriched the various definitions of the concept (Marshall, 2015). In the opinion of Marshall (2015) however, the definition of the OECD represents the concept's international unanimity which it defines as the system of directing and controlling business corporations, with a structure specifying the shared responsibilities and rights among various members with stakes in the company. These members include the board, managements, stockholders, and other stakeholders and it also defines the procedures and rules in decisions making. By this, corporate governance provides the formations through which the corporation frames its objectives and monitor its achievements (Marshall, 2015; OECD, 2015).

The corporate governance structure clarifies the procedures and rules in corporate decision making, providing the platform through which the corporation sets its objectives, as well as measures of supervising and achieving the set objectives while ensuring that all those responsible for piloting the company's affairs are accountable (Ajogwu, 2007, 2019). Corporate governance seeks to guarantee accountability, transparency, efficiency, fairness, effectiveness, and integrity, in managing corporate affairs. Furthermore, it protects, promotes, and safeguards the interests of all stakeholders to achieve corporate social responsibility (Fung, 2014). Inyang (2009) argues that corporate governance entails a wide range of practices and policies at the disposal of shareholders, management, and corporate boards in running the affairs of corporate entities towards achieving corporate objectives and responsibilities to all stakeholders. Awoyemi (2009) defines corporate governance as the set of customs, processes, laws, policies, and institutions that affects the administration, regulation and control of a corporation.

Valid codes of corporate governance and robust corporate governance mechanisms (such as an audit committee) are tools that can guarantee accountability, good stewardship, and quality financial reporting (García-Meca & Sánchez-Ballesta, 2009; Naciri, 2008). Similar to the definition discussed in Chapter One, corporate governance is all-inclusive, and it is an act of managing and directing the activities of a firm. It entails a symbiotic relationship, involving, on one hand, honesty, accountability, stewardship, and trust, and on the other hand, control, oversight, monitoring,

supervision, and financial reporting quality. Assessing these definitions, *accountability*, *stewardship*, and *quality financial reporting* are vital ingredients in all.

2.4.1 Corporate governance environment in Nigeria

The corporate governance settings of a country reflects the effects of the social-cultural, economic, and political factors that promote good corporate governance practices or impede unethical practices (Li & Nair, 2009). It encompasses the economic, legal, technological, social, and political institutions which influences the ethical choices of companies (Amao & Amaeshi, 2008; Wilson Jr, 2014).

The structure of corporate governance defines the context for evaluating a company's strategic choices, performances, decisions, and actions. When studying the cultural, socio-economic, and political consequences of the Nigerian codes of corporate governance, it is essential to observe that they serve as mechanisms for protecting companies against mismanagement, environmental exploitation and corruption (Adekoya, 2011; Aina & Adejugbe, 2015; Muraina, Okpara, & Ahunanya, 2010; Okeahalam & Akinboade, 2003). These codes seek to foster corporate accountability and transparency, social development, and economic growth (Aina & Adejugbe, 2015).

2.4.2 Development of corporate governance in Nigeria

It is inappropriate to separate the corporate governance concept from the company law generally (Marshall, 2015). The development of Nigerian corporate governance principles regarding the controlling, regulating, and directing corporations is traceable basically to CAMA (1990), which replaced the Companies Act 1968. The legal system in Nigeria and corporate governance practices as observed by Marshall (2015) was patterned after the UK system. Therefore, the growth and rise of corporate governance in Nigeria is discussed in five phases in this chapter.

2.5 Corporate governance codes

Aguilera and Cuervo-Cazurra (2009) defined a corporate governance code as the recommendations on best practices regarding the conduct and formation of the corporate board. It entails issues that will ensure accountability and financial reporting. Codes of corporate governance provide recommendations to the corporate board regarding its composition, structure, remuneration, board committees, auditing standard,

and ways of controlling the operations and activities of the company so that its objectives are achieved.

2.5.1 Pre - 1990 phase

Nigeria, after independence in 1960, reviewed the Companies Act of 1968 which was in operation during the colonial regime (Marshall, 2015). The Act was the primary legislation for companies in Nigeria (Ofo, 2013). Embedded in it are provisions on running the affairs of the companies alongside the corporate board's expected roles as well as owners during the general meetings. In 1972, it became apparent that the Companies Act of 1968 could not match the economic realities and the environmental settings on the ground. The Nigerian Enterprise Promotion Decree (NEPC) No 4 was then promulgated. This decree, although later amended in 1977, was commonly referred to as a 'national' or 'indigenous' decree or a nationalisation policy because it was meant to be indigenous or effect structural changes in the ownership of foreign enterprises in Nigeria. Its intention was to give Nigerians participation in the control, ownership and running of the nation's productive enterprises (Marshall, 2015; Ofo, 2013). This decree, however, encountered some challenges and the relaxation of the restrictions imposed by the decree began in 1989. The Companies Act of 1968 was still in force, though characterised by various criticisms and limitations from stakeholders. It was, therefore, replaced and repealed by Companies and Allied Matters Decree No 1 of 1990 (Dombin, 2014) which became the principal statute regulating the affairs of companies in Nigeria.

2.5.2 1990 – 2003 phase

In 1995, the promulgation of the Nigeria Investment Promotion Commission (NIPC) Act No 16 of 1995 repealed the 'indigenous' decree (Fru, 2011). This Act opened the sectors to foreign participation, and it boosted the Nigerian investment climate for local and foreign investors (Part II, S.4 (b) (c), NIPC Act 16, 1995). It abolished any restriction on foreign shareholding limits depending on provisions of the CAMA. The decree also covered the prohibition of indigenisation or confiscation of any foreign firms domiciled in Nigeria (S. 25, NIPC Act, 1995). S.24 NIPC Act (1995) guarantees an unconditional transferability of capital and returns in freely convertible currency (Fru, 2011). All these and other sections are to promote and attract foreign investment into the country. The CAMA (1990) was a product of the Nigeria Law Reform Commission's rigorous process and deliberations. It is essential to mention that at the time of its enactment in 1990, corporate governance had not emerged as a distinct

concept (Marshall, 2015; Ofo, 2013). However, it consisted of provisions that were innovative and essential to corporate governance practice in Nigeria. Among the provisions were equity ownership disclosure, compliance with auditing and accounting standards, equality of members and minority shareholders' rights, composition, features and functions of board of directors and formation, functions and attributes of board committees among which included the audit committee (S. 359 (3) – (6) CAMA, 2004).

The codification of directors' duties was one of the notable features of CAMA in Sections 279, 280, 281, 282, and 283 CAMA (2004). Section 279 provides that a company's director is in a relationship of trust to the company and shall execute absolute good faith in any dealings with the company or as its representative. Section 280 stipulates that a director shall have no conflict of interest in discharging his duties and responsibilities while managing the company's affairs or, while using the company's asset, obtain any hidden profit or other gratuitous benefits without adequate disclosure. Section 282 reiterates the need for a director to exercise honesty in discharging his official responsibilities, with utmost consideration for the company's best desires, and shall exhibit that level of skill, care, and diligence which a responsible director would do in a similar situation. Section 283 CAMA (2004) states that company directors are its trustees regarding properties, money, and its authorities and they must be a good steward in the company's best interests, its shareholders, and for their own interests as well. These CAMA (2004) provisions confirm the pre-eminence of the shareholders' position in corporate governance in Nigeria.

Directors' other responsibilities include preparation of the annual accounts from the accounting records of the firm, which consists of a statement of the accounting policies, and reports of both the directors and the auditors. Section 342 authorised the corporate directors to prepare the company's reports while Section 345 makes it obligatory for the directors to present and read at an annual general meeting copies of the company's financial statements and the auditors' report. The significance of disclosure, accountability, and transparency, which are corporate governance principles are revealed in these responsibilities.

Audit committee issues featured in Section 359 CAMA (2004) under Auditors' report. Specifically, Section 359 (3) to (6) refers to the audit committee, its establishment,

composition and functions. Considered hereunder are the provisions of CAMA (2004) on an audit committee under Section 359 (3) – (6):

- Section 359(3) requires public companies to form an audit committee to whom also the external auditor shall report.
- Section 359(4) of CAMA (2004) stipulates that an audit committee shall consist of an equal representation of shareholders and directors of the company. The committee's size shall not exceed six persons who shall be considered for re-election annually.
- Section 359(5) states that by giving a written notice to the company's secretary at least 21 days prior to AGM, a shareholder may be nominated as an audit committee member.
- Section 359(6) states the functions and objectives of the committee are to:
 - a) Ascertain whether the company's accounting and reporting policies are following the legal requirement and as well as ethical practices.
 - b) Review the planning and scope of the audit requirements.
 - c) Review the findings on management matters along with the external auditor and departmental responses thereon.
 - d) Keep under check the efficacy of the company's system of accounting and internal control.
 - e) Make recommendations to the board as regards the appointment, removal, and remuneration of the external auditors of the company.
 - f) Authorise the internal auditor to investigate any activities of the company which may be of interest or concern to the committee.

Nevertheless, after the enactment of CAMA in 1990, the worldwide corporate scandals brought corporate governance issues to the fore. Therefore, different countries began to appraise their corporate governance practices (Aina & Adejugbe, 2015). In the opinion of Marshall (2015), the corporate scandals caused several nations to issue codes of corporate governance and best practices to resolve matters not properly and explicitly captured by the company law; this included Nigeria.

In Nigeria, the Bankers' Committee in August 2003, issued the first code via the *Code of Corporate Governance for Banks and Other Financial Institutions* (Ofo, 2013). It was compiled and introduced by the Sub-Committee of the Bankers' Committee responsible

for corporate governance. The code was circumstantial as a result of the crisis in Nigerian financial sector before the 2000s and the realisation that the corporate challenges at that time were not resolved by the company law. Poor corporate governance was attributable to virtually all the crises in the financial sector (Marshall, 2015). The code lacked general acceptability because a voluntary organisation had issued it and not a regulatory agency (Ofo, 2013). Notwithstanding the comprehensiveness of the code, it made no impact at the end because of the introduction of the SEC (2003) *Code of Best Practices on Corporate Governance*, and as such, no recognition was accorded to it in the academic literature (Aina & Adejugbe, 2015; Marshall, 2015).

2.5.2.1 SEC (2003) Code of Best Practices on Corporate Governance in Nigeria

The SEC in conjunction with the CAC inaugurated the 17- member Atedo Committee on June 15, 2000 which produced the SEC (2003) code. The committee had a mandate to identify ways and changes required to improve the corporate governance environment and enhance improved disclosure, accountability, and transparency. The committee consisted of representatives from every sector of the economy, with the mandate to review and introduce changes that would resolve any inadequacies identified and thereby promote international best practices of corporate governance in Nigeria.

The SEC (2003) code introduced was a first attempt to join the international community by aligning with international best practices. The compliance status of the code was voluntary as companies' boards and management were encouraged to ensure compliance.

The chairman of the committee stated in his foreword that *the acceptance and adoption of our report and findings should mark a significant advance in the process of establishing corporate governance standards in Nigeria*. The code was signed and made public with effect from April 1, 2003. The followings are critical elements of the code as regarding the audit committee:

The provision on the composition of the committee made three recommendations as stated hereunder:

- It emphasised the formation of an audit committee in line with S.359 (3 & 4) CAMA (2004) and allowed no more than one executive on the committee;

- Most of the serving NEDs on the committee should be independent; and
- The committee members should nominate a NED as the committee's chairman.

Two recommendations were made which encompassed six qualities expected of an audit committee member:

- (a) Members should understand fundamental financial statements and contribute meaningfully in reviewing the same.
- (b) Every member should possess the following qualities:
 - Integrity,
 - Dedication,
 - An in-depth, comprehension of the business line of the company, its services and products,
 - A reasonable understanding of the company's risks and the necessary measures of controlling the same,
 - Dependable and inquisitive judgment, and
 - Ability to suggest constructively new or refined views.

The provision on the committee meetings had the following recommendations:

- The committee's meetings in a year should be at least thrice.
- They are to meet at least once a year with the external auditors, with no executive attending.
- They are to help the corporate board in performing its oversight functions.

In fulfilling their responsibilities, effective working relationships must be maintained with board members, management and the external and internal auditors alike. The committee should be guided by a term of reference in accordance with Section 359 (6a-6e) of the CAMA (2004).

The SEC (2003) code had a compelling effect on the Nigerian corporate governance settings. It was the first code in Nigeria governing all registered public firms in Nigeria (Marshall, 2015; Okike & Adegbite, 2012). Shortly after its introduction, several changes occurred in the corporate world which made its provisions deficient in solving these new developments; this necessitated an urgent review (Ofo, 2013). The desired review or amendment to this code was not forthcoming from the SEC, and this made

sectoral regulators issue codes that are peculiar to their sectors. These regulators took cognisance of the current happenings as and when the codes were introduced and made adequate provisions to address them (Marshall, 2015).

2.5.3 2004- 2011 phase

2.5.3.1 Company and Allied Matters Act (CAMA) (2004, as amended)

In Nigeria, CAMA is the company law regulating the activities of corporations. It was enacted in 1990 and remained unchanged until 2004 when some amendments were affected. There were several amendments to provisions, part of which included the need for an audit committee member to possess relevant accounting/financial knowledge to be able to function effectively. The only amendment that concerns the audit committee was in S. 359 (4). The addition to the section was “... and have relevant accounting/financial knowledge to discharge his/her duties as an audit committee”.

2.5.3.2 CBN (2006) Code of Corporate Governance for Banks Post Consolidation

The CBN in its supervisory and regulatory role over the banking industry in Nigeria introduced a mandatory code of corporate governance which became active from April 3, 2006. The code applies to all Nigerian registered banks and other financial institutions after the bank’s consolidation exercise in 2005. The code is in two parts (Parts I & II). Part I introduces the code and discusses it under a title: *Need for a new code of corporate governance*. There are three provisions under part I Section 1 (Introduction), and it has seven recommendations (Part 1, Section 1 (1) – (7), CBN 2006 code). It started by indicating the necessity for best corporate governance practices with a view to boost shareholders’ interest and meeting the stakeholders’ expectations (Section 1 (1)).

2.5.3.3 Pension Commission (PenCom, 2008) Code of Corporate Governance for Licensed Pension Operators

The successful pension sector restructurings in Nigeria led to the promulgation of the Pension Reform Act of 2004, which eventually resulted in the PenCom. These reforms allow better private sector participation in the fund management with PenCom as the regulatory agent. It necessitated a good corporate governance process for pension fund administrators (PFA) and pension fund custodians (PFC) to protect pension assets. In 2008, the *Code of Corporate Governance for Licensed Pension Operators* was issued by PenCom to set out rules that guide the PFAs and PFCs on processes and structures necessary towards achieving desired good governance and best practices.

2.5.3.4 NAICOM (2009) Code of Good Corporate Governance for the Insurance Industry

There is great importance attached to the insurance industry's quality and efficiency all over the world as stated by Professor Irukwu in his foreword to the code. It is essential for countries to establish an effective regulatory agency to oversee the operations of the sector. NAICOM made a significant stride forward when it introduced the *Code of Corporate Governance for the Insurance Industry* in Nigeria in March 2009. The NAICOM (2009) Code has a mandatory application for insurance and reinsurance companies under its supervisory purview. The code serves as a priority for effective corporate governance in alignment with the SEC (2003) Code.

2.5.4 2011- 2014 phase

2.5.4.1 SEC Code (2011) Code of Corporate Governance for Public Companies in Nigeria

In spite of the various disadvantages of the SEC 2003 Code, it continued to exist until the SEC (2011) code replaced it. In 2008, SEC initiated the review of the SEC (2003) Code by constituting an M.B Mahmoud-led Committee. It had a mandate to advise on the different significant issues that are germane in ensuring best practices of corporate governance in Nigeria. In 2009, the report of the committee was presented to the SEC alongside a draft *Revised Code of Corporate Governance*. The SEC after consulting with other regulators analysed the submitted draft by making certain adjustments at its 43rd meeting. The following are the significant issues it addressed.

The SEC (2011) code is persuasive and voluntarily-based, and if any conflict arises between it and any other code concerning a firm governed by dual codes, the code with a stricter recommendation shall apply (Section 1 SEC, 2011 Code). The code is in ten parts, that is, Parts A-J:

- Part A: Application of the code; this covered only one issue, that is, application of the code.
- Part B: Board of directors (it considered 19 issues).
- Part C: Relationship with shareholders (it considered seven issues).
- Part D: Relationship with other stakeholders, one issue is considered here, and that is sustainability issues.
- Part E: Risk management and audit (five issues are considered, including audit committee issues where the formation, attributes and functions featured).

- Part G: Accountability and reporting, the issue considered here are disclosures.
- Part H: Communication, here also, only communication policy is considered.
- Part I: Code of ethics, code of ethics is the only item; and
- Part J: Interpretation; this part discusses interpretations of certain words in the context of usage. An omission occurred when numbering the parts as ‘F’ was missing, that is, there is no ‘Part F’.

Obodo (2014) stated that the provisions of the code are commendable unlike its predecessor. It seeks to guarantee the highest level of accountability, transparency, and corporate governance, without compromising innovation and enterprise. The implementation of good practices of corporate governance lies in the enforcement mechanism (Obodo, 2014; Ofo, 2013). No matter how unique and elaborate a code may be, if its enforceability is weak or non-existent, it will have little or no impact on stakeholders’ expectations (Marshall, 2015). Stakeholders must be committed to safeguarding compliance with the code as a way of securing investors’ confidence and boosting the net worth of their stake (Marshall, 2015; Obodo, 2014).

The SEC (2011) code applies to all public companies in Nigeria. It became effective from April 1, 2011, and serves as the minimum standard for public firms. The SEC board of directors are convinced that it could promote maximum standards of accountability, openness, and sound corporate governance practices, without unnecessarily inhibiting innovation and enterprise (Marshall, 2015; Ofo, 2013).

2.5.4.2 Federal Reporting Council of Nigeria (FRCN), 2011 Enactment

The country’s desire to ensure the promotion of international best practices of corporate governance birthed the FRCN Act 6 (2011). The Act is unique because of its jurisdiction over issues regarding governance of corporations in Nigeria. It ushered in a new dawn where a regulator assumed responsibility for corporate governance for the first time in Nigeria. It changed the Nigerian corporate governance structure. In line with the powers of the Act, the FRCN established a directorate of corporate governance (Section 23 (g) and S.45, FRCN Act, 2011). The objectives and functions of the directorate in Sections 50 and 51, FRCN (2011) include improve the practices and principles of good corporate governance, encourage the maximum standards of corporate governance, encourage the awareness of the public tenets and practices about

corporate governance, act as a coordinating agency for all corporate governance matters, encourage accountability, and transparent financial reporting.

The directorate is responsible for promoting and organising training sessions, seminars, and workshops on corporate governance matters, issuing guidelines on governance code, developing measures for reviewing the guidelines and the codes periodically, and rendering guidance and assistance on how to establish and adopt governance code thereby fulfilling its mandates and establishing connections with international organisations involved in corporate governance promotion.

2.5.4.3 Amendment of SEC (2011) code in 2014

SEC (2011) Code of Corporate Governance for Public Companies in Nigeria as amended

The dynamic characteristics of the capital market and several threats to corporate survival worldwide compelled the SEC to make a few adjustments to the 2011 code, that is, the SEC (2011) *Code of Corporate Governance for Public Companies* which became effective on May 12, 2014, without changing the terminology. The changes were desirable to promote and guarantee international best practices.

The amendment of the code from the voluntary-based to a mandatory-based application was a significant issue covered by the review (Obodo, 2014). The code, following the amendment, is now a framework that will enhance quality corporate governance practices and attitudes (Marshall, 2015; Obodo, 2014).

The compliance with the code is now mandatory (Rule 1.3(g) SEC 2011 code as amended). Further, non-compliance with the code's provisions will attract a fixed fine of ₦500,000 in the first instance, an increase of daily ₦5,000 for continuous violation and any other punishment deemed fit in the circumstances by SEC (Rule 1.3(h) SEC 2011 as amended).

The introduced sanctions and penalties to the code would bring it at par with the SEC's statutory rules under the mandate of the ISA. The SEC (2011) code, before the amendment, required publicly listed companies to include a compliance report on codes of corporate governance in their published financial statements; this requirement remains after the modification. It sets the minimum acceptable standards for listed companies in Nigeria.

2.5.4.4 The CBN (2014) Code of Corporate Governance for Banks and Discounts Houses in Nigeria and Guidelines for Whistle Blowing in the Nigerian Banking Industry

This was a reviewed version and a replacement for the CBN (2006) Code. The global economic meltdown of 2008 revealed several flaws in companies' activities globally. In Nigeria, essentially, the controls put in place were inadequate (Marshall, 2015); as such, it became essential to resolve the issues. The assessment done in the banking industry by the joint committee of CBN and NDIC exposed many corporate exploitations that the governance mechanisms could not resolve (Marshall, 2015).

2.5.4.5 NCC Code (2014) Code of Corporate Governance for the Telecommunication Industry

The NCC's desire to achieve increased shareholder value and exceed stakeholders' expectations in an emerging economy like Nigeria warrants developing a sound corporate governance environment. The NCC Code (2014) was a desire to entrench in the Telecommunications Industry a culture of good corporate governance practices, but shortly after its introduction the process of reviewing it commenced to ascertain that the provisions are in line with international best practices.

2.5.5 2016 to current date phase

2.5.5.1 NCC Code (2016) Code of Corporate Governance for the Telecommunications Industry

The NCC was the first regulator to review its corporate governance code within the space of two years. Professor Danbatta, in the foreword to the code, observed that the desire to institute a culture of excellent corporate governance standards and best practices is gaining general acceptability as a foundation for corporate success and business sustainability worldwide. He encouraged the adoption of the concepts and principles of the code since it will promote openness, accountability, transparency, and integrity.

The code in its introductory section promises to ensure highest standards of transparency, data integrity, accountability, ethical conducts, adequate disclosures, of due process observance without compromising enterprise and innovation. The code adopts principles, standards, and laws as enshrined in CAMA and Nigerian Communication Act. It therefore states that in the event of conflicts between the code and other regulations, the stricter provision should apply. The code took effect from November 1, 2016, and consists of 14 broad sections with 33 principles in all.

2.5.5.2 FRCN (2018) Code: Nigerian Code of Corporate Governance (NCCG, 2018)

The FRCN on October 17, 2016, made available to the public three draft codes of corporate governance which included:

- (i) *Nigerian Code of Corporate Governance for the Private Sector in Nigeria 2016*,
- (ii) *Public Sector Governance Code in Nigeria 2016*, and
- (iii) *Not-For-Profit Organisations Governance Code 2016*.

These codes were all suspended on October 28, 2016, shortly after their release by the Honourable Minister of Industry, Trade and Investment. The controversies that led to the suspension of all the codes includes the legal action instituted by Eko Hotels, in the case *Eko Hotels v FRCN*, challenging the FRCN enforcement powers over the registration and filing of annual returns by private limited liability companies. It held that there was no such power vested on FRCN to regulate the affairs of private companies. Besides this court ruling, one of these draft codes (*Not-For-Profit Organisations Governance Code 2016*) impacted negatively on the drive of government on the *Ease of doing business*. It was also criticised in the country because it affected a renowned religion institution and their General Overseers (Udoma & Osagie, 2019).

On June 14, 2018, a new code that consolidates two out of the three suspended codes, that is, the first two stated above, was drafted by FRCN, while the *Not-For-Profit Organisations Governance Code 2016* remained suspended. This draft was a product of fifteen-member technical committee headed by Mr Muhammad K. Ahmad. The committee consisted of individuals and professionals within the industry with expertise on corporate governance issues. The committee members were appointed by the new FRCN leadership after a leadership change as a result of the 2016 controversies.

The Vice President and the Honourable Minister of Industry, Trade and Investment of the Federal Government of Nigeria made public the *2018 Nigerian Code of Corporate Governance* with an effective date from January 15, 2019, issued by FRC. The release of the code was following the powers conferred on the FRCN, under Section 11(c) and 51(c) of FRCN Act (FRCN, 2011), to promote the culture and practices of good corporate governance in the public and private sectors of the economy. The code intends to institutionalise best practices in corporate governance in Nigeria, to restore confidence in the Nigerian economy and create a sustainable business environment.

The code aims at achieving good corporate governance practices, accountability, and business prosperity. It seeks to enshrine a culture of best practices and the highest standard of corporate governance in Nigerian firms and to encourage public awareness of basic corporate ethical values and practices that will guarantee the integrity and quality service delivery of the business organisations' environment in Nigeria. Furthermore, it desires to restore public interest, confidence and trust in the Nigerian economy that will increase trade, investment and also contribute to the ease of doing business in Nigeria (Sections A & B, NCCG, 2018). It is important to state here that FRCN (2018) Code will henceforth be referred to as NCCG (2018) Code.

This code does not apply generally to not-for-profit entities and private companies to avoid the 2016 controversies, but must apply to the following entities:

- (a) all public companies (be it listed or not);
- (b) all private companies which are the holding companies of either public companies or other regulated entities;
- (c) all privatised companies or companies under concession; and
- (d) all regulated private companies that file returns to any regulatory authority other than the Federal Inland Revenue Service (FIRS) and the CAC.

All the entities listed above must indicate in their annual reports their compliance with the code beginning from or earlier than January 1, 2020. The code does not seek to replace sectoral codes but recognises and allows their existence. The sectoral regulators have in place corporate governance codes meant for companies within their sectors. NCCG seems to be a consolidation and refinement of different sectoral codes on corporate governance as shown in Table 2.2 hereunder. The NCCG under Section B recognises five sectoral codes which include:

1. Code of Corporate Governance for the Telecommunication Industry 2016 issued by the Nigerian Communications Commission (replacing the NCC 2014 Code),
2. Code of Corporate Governance for Banks and Discount Houses in Nigeria 2014 issued by the CBN (replacing the CBN 2006 Code),
3. Code of Corporate Governance for Public Companies in Nigeria 2011 issued by the SEC (replacing the SEC 2003 Code),
4. Code of Good Corporate Governance for Insurance Industry in Nigeria 2009 issued by the NAICOM, and

5. Code of Corporate Governance for Licensed Pension Fund Operators
2008 issued by the PenCom.

In other words, there is no uniform corporate governance standard for all companies and companies across all business sectors are also subject to the codes of corporate governance applicable to their industries. As such, some companies are subject to more than one corporate governance regime.

The code adopts an *apply-and-explain* philosophy for its implementation. It is a principle-based approach that requires adherence to the spirit behind the code rather than the letters, that is, companies are assumed to apply all the code's principles and explain the practices used that suit their corporate goals and sectoral requirements. This philosophy affords flexibility (applicable to diverse circumstances) and scalability (applicable to companies of varying sizes). In applying the code, companies are to be more practical since it is a requirement on them to disclose their compliance with the code and to explain the impact of such compliance. They are at liberty to apply the suggested practices under the code to suit specific industry or company needs. In complying with the code, therefore, strict adherence to the principles stipulated in the code takes precedence over practices suggested therein (Section C of the Code). As stated by Asapokhai, the Executive Secretary of FRCN while formally presenting the NCCG, where differences exist between the provisions of this code and any sectoral governance guidelines, the stricter provision shall apply.

Although the NCCG does not void sector-specific codes of corporate governance, it is proper to conclude that where standards as prescribed in the sector related code concerning any issue covered by the NCCG are lower than that specified under the NCCG provisions, companies affected must adhere to the higher standard of the NCCG. Where standards as prescribed in the sector related code are higher than the provisions in NCCG, those higher standards take precedence, as the NCCG only sets minimum standards.

The FRCN has the mandate to monitor the code's implementation through the registered exchanges, regulators of various industries, and other trade associations. It is these organisations that are mandated to appropriately sanction deviations or outright non-compliance. The code does not empower the FRCN to impose a sanction for non-

compliance but only the power to conduct reviews on the implementation and the level of implementation of the code (Section D, NCCG, 2018).

The code provides a structure that safeguards good practices of corporate governance in both the private and public sectors of the economy by providing a broad set of principles and practices on corporate sustainability, accountability, and transparency. There are seven parts (A - G), 28 broad principles, and 231 suggested practices laid down in the code, which include:

- Part ‘A’ has 16 principles which relate to the **board of directors and officers of the board** concentrating on diverse board related issues such as composition, essential functions, meetings, the delegation of authority to committees, appointments, induction, and appraisal/evaluation.
- Part ‘B’ has four principles and is entitled **assurance**, covering risk management, whistleblowing, and audit processes.
- Part ‘C’ has three principles focusing on the **relationship with shareholders**, emphasising the importance of annual general meetings, engaging with and fair treatment of shareholders.
- Part ‘D’ has two principles which deal with **business conduct and ethics**, recommending the formation of mechanisms and policies for checking insider trading, conflict of interest, transactions involving related party, and other related fraudulent practices.
- Part ‘E’ has one principle on **sustainability**, which seeks to promote the adoption of environmental and socially responsible business practices.
- Part ‘F’ has two principles on **transparency**, recommending practices on stakeholders’ communication, and disclosure of valuable information.

2.5.5.3 2018 Repeal and re-enactment of CAMA

The CAMA (Chapter 20) Laws of the Federation of Nigeria (2004), was initially made law in 1990 as a decree promulgated by the military administration. The CAMA since its enactment, for over three decades, has been in operation the same way it was enacted, with no significant review of it. In spite of the changing and evolving corporate world, companies in Nigeria have no choice than to rely on it in transacting and running the activities of their firms (Udoma & Osagie, 2019).

The circumstances are about to change as the CAMA (Repeal and re-enactment) Bill, which the Senate endorsed on May 15, 2018, is passed into law as it is. The Bill, while considering the peculiarities of the Nigerian market, capitalises on lessons learnt from other nations. The Bill, if granted assent, will leapfrog Nigerian corporate law over three decades of stagnation and rectify the various shortcomings of the CAMA. Given this, some highlights on significant innovations in the Bill are hereunder:

a) Single-member and director companies

The powerhouse of the Nigerian economy, which are the Micro, Small and Medium Enterprises (MSMEs) are providing employment to approximately 60 million Nigerians. However, only about 14% are duly registered under the provisions of CAMA (Udoma & Osagie, 2019). The sole proprietorships can now be registered as companies and benefit from the limited liability conferred by incorporation; this is meant to encourage small businesses. The Bill allows small corporations to have a single director and shareholder.

b) Company rescue procedures

The Bill incorporates companies' voluntary administration and arrangements into the Nigerian company law. With this, saving viable businesses and ensuring that non-viable businesses can efficiently exit the market through the insolvency administration becomes possible.

c) Small companies

There are adjustments to the measures of defining a small company to capture the reality of MSMEs in Nigeria. More MSMEs will become small corporations when the Bill becomes law, and they will enjoy the concessions applicable to small companies under the Bill, such as being exempted from audits and the requirements to hold AGMs and appoint a company secretary (Udoma & Osagie, 2019).

d) Limited partnerships and limited liability partnerships

It is possible in the revised CAMA to register limited partnerships and limited liability partnerships. It will resolve many concerns for investment funds and private equity funds desiring to establish a local partnership entity in Nigeria. Before now, such partnerships could only exist in Lagos State (Udoma & Osagie, 2019).

e) Disclosure of persons with significant control

The Bill gives notice of the divestment or acquisition of shares equivalent to 5% or more of the company's issued share capital for both public and private companies. The threshold of the disclosure before now is 10%, and it applies to only public companies. The aims of the changes are combating asset shielding and increasing transparency (Udoma & Osagie, 2019).

Table 2.2 Analysis of Nigerian Codes of Nigerian Codes of Corporate Governance

Issues analysed	PenCom (2008) Code	NAICOM (2009) Code	SEC (2011) Code	CBN (2014) Code	NCC (2016) Code	NCCG (2018)
Effective date	June, 2008	March 1, 2009	April 1, 2011	October 1, 2014	November 1, 2016	January 15, 2019
Application	Mandatory, rule-based.	Voluntary, principle-based; to be administered using a “comply-or-explain” approach.	Introduced in 2011 as voluntary but later became mandatory, rule-based after 2014 amendment.	Mandatory, “rule-based”.	Mandatory, “rule-based”.	Voluntary, principle-based; to be administered using “apply-and-explain” approach.
Board chairman	Implied to be a NED; shall be involved in the evaluation of both NEDs and EDs; should manage well his/her relationships and communications with shareholders.	Shall be a NED; shall not be granted remunerations beyond the usual entitlements for board appointment.	“Shall be a NED; should oversee the annual evaluation of the performance of the CEO”	The code is silent about the appointment of board chairman, but it implies that he/she should be a NED; the board chairman shall not be a member or chairman of any board committee.	Shall be a NED and be elected by the directors among themselves; the board chairman and the CEO shall neither Chair nor be a member of any committee; the annual performance evaluation of the Chairman and his ability to continue to add value to the board is necessary.	Shall be a NED; if the board decides that a former MD/CEO or an ED should become chairman, adoption of a cool-off period of three years should subsist; he/she needs to engage with other NEDs periodically; should not serve as chairman or member of any board committee.
Separation of powers	No individual shall occupy the position of Chairman and CEO/MD; the PFA/PFC shall disclose the relationship between the Chairman and the CEO, where they are related to each other.	No individual shall occupy the position of chairman and CEO/MD at the same time; the dominance of the board by any one person shall not apply; no two members of the same extended family shall occupy the position of the chairman and CEO/MD of an insurance company at the same time.	No individual shall occupy the position of Chairman and CEO/MD.	No individual shall occupy the position of chairman and CEO/MD; there should not be an executive vice-chairman in the board structure; no two members of the same extended family shall occupy the positions of Chairman and CEO/MD or ED of the bank and Chairman or CEO/MD of a bank’s subsidiary at the same time; where the bank is a member of a holding company, not more than two extended family members shall be allowed to serve on the boards of	The positions of CEO/MD and the board’s chairman shall be occupied by two separate persons, to institute and maintain independence and proper checks and balances and prevent incidences of overbearing influence.	The positions of the CEO/MD and that of the board’s chairman should be separate such that no person can combine the two positions; it is allowed to appoint the CEO/MD or an ED as NED in any other Company, provided such appointment is not detrimental to his responsibilities; the MD/CEO or an ED should not go on to be the chairman of the same company; if in very exceptional circumstances the board decides that a former MD/CEO or an ED

Table 2.2 Analysis of Nigerian Codes of Nigerian Codes of Corporate Governance

Issues analysed	PenCom (2008) Code	NAICOM (2009) Code	SEC (2011) Code	CBN (2014) Code	NCC (2016) Code	NCCG (2018)
Effective date	June, 2008	March 1, 2009	April 1, 2011	October 1, 2014	November 1, 2016	January 15, 2019
				the bank and the holding company.		should become chairman, adopting a cool-off period of three years is necessary.
Board of directors	The board shall assure that the company has a capable management team; it shall monitor and evaluate the performance of the management team regularly; the board can appoint and dismiss an MD; all members of the board shall complete the Code of Conduct forms for directors, issued by the Commission.	Board of directors shall be active and accountable; nominated board members to file with commission Personal History Statement (PHS) form, not later than 4weeks after nomination; monitor and manage potential conflicts of interest of management, board members and shareholders, including misuse of corporate assets and abuse in related party transactions.	Directors should not be board members of companies in the same industry; not more than two members of the same family shall sit on the board of a public company at the same time; no cross memberships on the boards of two (2) or more companies.	The board shall assure strict compliance to the code of conduct for bank directors; procedure for board appointment shall be formal, transparent and documented in line with existing CBN guidelines; no director, either ED or NED, shall be allowed to serve on the boards of a bank and a holding company in a Group structure at the same time.	Subject to the provisions of CAMA, one-third of NEDs should retire periodically by rotation at the licensee's AGM but retiring directors may re-present themselves for re-election; shall be composed as to assure a mix of skills, diversity of experience, and gender; no board member should sit in more than two committees; each board should have a board charter.	The board should have a charter setting out its responsibilities; perform the appraisal of board members and executive management; Shareholders should be provided with biographical information of proposed directors to guide their decision.
Board size	Not specific on size figure; the board shall not exceed the size that will allow it to employ simple and effective methods of work to enable each director to feel a personal responsibility and commitment.	It shall not be less than seven, and not more than 15.	It shall not be less than five.	The board size of any bank or discount house shall be limited to a minimum of five (5) and a maximum of twenty (20).	Not less than five (5) for large telecommunication companies, while for the smaller companies it shall be subject to the provisions of CAMA.	Not specific on board size; the board should be of sufficient size to effectively undertake and fulfil its business.
Board composition	An equal number of ED and NED; the composition of the board and its committees be appropriate, with the right mix of knowledge and skills; At least one INED on the	Executive director & NED, not more than 40% ED; at least one INED on the board to be appointed by the board subject to ratification at AGM.	A mix of executive director & NED, the majority should be NED with at least one INED; all public companies should have at least one INED on	A mix of executive director & NED, the majority should be NED with at least two INED, while that of discount houses shall have at least one INED; shall be	A mix of ED & NED, the majority should be NED, minimum of two ED of which one should be the CEO while the other should hold another strategic position; with at	An appropriate mix of EDs, NEDs, and INEDs members such that the majority of the board are NEDs; most of the NEDs should be independent.

Table 2.2 Analysis of Nigerian Codes of Nigerian Codes of Corporate Governance

Issues analysed	PenCom (2008) Code	NAICOM (2009) Code	SEC (2011) Code	CBN (2014) Code	NCC (2016) Code	NCCG (2018)
Effective date	June, 2008	March 1, 2009	April 1, 2011	October 1, 2014	November 1, 2016	January 15, 2019
	board.		its board.	knowledgeable in business and financial matters.	least one INED, while larger companies may have two or more INED.	
Board gender diversity	Not mentioned.	Not mentioned.	Selection to the board should reflect gender composition; the board should report annually on gender policies and practices, especially as they relate to the executive-level opportunities.	Not mentioned.	Diversity of gender recommended; the board should ensure that it is so composed as to assure a mix of skills, diversity of experience, and gender.	The board should encourage diversity in its membership across a variety of attributes, including gender.
Independent non-executive director (INED)	The Commission shall determine the independent status of an INED annually, bearing in mind the criteria outlined in S.4.1.4 (a) to (d) and any other salient factors. The code recognises these criteria: either he/she or any of his relation shall not be an employee of the company or any of its related companies currently or in the past three years; shall not be accepting compensation from the company or any of its related companies other than that meant for board service for the current or past three years; shall not be a substantial shareholder of, or a partner	An INED does not represent any particular shareholding interest nor hold any business interest in the company; to be appointed by board subject to ratification at AGM; he/she is critical in the evaluation of the board and management appraisal; serve as a mediating agent in the event of conflict of interest between management, the company and its shareholders.	Shareholding should not exceed 0.1% of paid-up capital; should not be employed or related to any employee of the company or the group in the last three years; all public companies should have at least one INED on its board; is not a representative of a shareholder that has a controlling influence; has not served in any executive capacity in the company or group for the past three financial years; not a professional advisor to the company or the group, except in a capacity of a director; not a significant supplier to or customer of the company or group; has	At least two INEDs shall be board members of banks while the board of discount houses shall have at least one INED as enumerated in the CBN guidelines on the INED appointment.	Independent director (INED) is one holding not more than 0.1% shareholding directly or indirectly in the licensee; shall be a NED who is free of any relationship with the licensee or its management that may impair, or appear to impair the director's ability to make independent judgments; should generally monitor corporate affairs and policies, and act as a check, and present a balance on the acts of the board and management of the licensee.	Does not possess a shareholding above 0.01% of the paid-up capital of the company; does not have, and has not had within the last five years , a material business relationship with the company either directly, or as a partner, shareholder, director or senior employee of a body that has had, or has, such a relationship with the company; has not served at directorate level or above as the company's regulator within the last three years ; the board should annually ascertain and confirm the continued independence of each INED; it is not desirable to reclassify an

Table 2.2 Analysis of Nigerian Codes of Nigerian Codes of Corporate Governance

Issues analysed	PenCom (2008) Code	NAICOM (2009) Code	SEC (2011) Code	CBN (2014) Code	NCC (2016) Code	NCCG (2018)
Effective date	June, 2008	March 1, 2009	April 1, 2011	October 1, 2014	November 1, 2016	January 15, 2019
	in (with 5% or more equity interest) or an executive officer of any profit-making organisation to which the company made, or from which it received payments significantly, in the current or past three years; if the company is comfortable with the status of an INED, in the event of violation of either of these criteria, it shall disclose in full, to the Commission, the nature of the director's relationship and explain why he should be considered independent.		no contractual relationship significantly with the company or group; not a partner or an executive of the company's statutory audit firm, or other consulting firms that have material association with the company in the past three financial years; an independent director should be free of any connection with the firm or its management.			existing NED into an INED within the same board; nomination and governance committee should assess the independent status of the INED annually.
Audit Committee	The board shall establish an audit committee with a specific term of reference; where the Board appoints a committee, it shall issue, in writing, the terms of reference to guide the committee's work and shall also spell out the committee's authorities, and in particular, whether it can act on behalf of the board or has the authority to examine a particular issue and report back to the board with a recommendation.	To be elected at AGM as specified in CAMA; to be headed by an INED with high level of integrity, commitment and discipline; at least one member shall have good understanding of the insurance business; it shall review and ensure the adequacy of whistle-blowing procedures; shall review the terms of engagement and recommend the compensation, appointment or re-appointment of external	Codified in S.30; the board shall establish an audit committee in line with CAMA; the committee shall review and ensure the adequacy of whistle-blowing procedures	Establishment of a board audit committee (BAC) in addition to audit committee which is not a board committee but as recommended by CAMA; the BAC shall be of sufficient size, independence and technical expertise to discharge its mandate effectively.	Codified in S.11.6; the board shall establish an audit committee in line with CAMA; there should be a disclosure of the membership of the audit committee in the annual report; review of whistle-blowing mechanism by the audit committee; the committee shall maintain and recommend to the board a policy of non-audit services provided by the external auditor and must approve the contracts for non-audit services; there should be a report on all	Committee responsible for audit codified in S.11.4; Dual audit committee recommended for all companies (S.11.4.1 and S.11.4.6); without prejudice to CAMA on the statutory audit committee, every company should have a board committee responsible for audit; the board audit committee shall review and ensure the adequacy of whistle-blowing policies and procedures, and that the board should receive summary of issues

Table 2.2 Analysis of Nigerian Codes of Nigerian Codes of Corporate Governance

Issues analysed	PenCom (2008) Code	NAICOM (2009) Code	SEC (2011) Code	CBN (2014) Code	NCC (2016) Code	NCCG (2018)
Effective date	June, 2008	March 1, 2009	April 1, 2011	October 1, 2014	November 1, 2016	January 15, 2019
		auditors to the board and the shareholders; there should be a periodic evaluation of committee's performance.			related party transactions to the board through the audit committee.	reported through the whistle-blowing mechanism.
Audit committee composition	The code makes no specific recommendation on this, but request that the board include the composition in the corporate governance report.	It is as specified in CAMA with not more than one ED.	As specified in CAMA; the majority of the board members of the audit committee shall be NEDs.	Statutory audit committee as specified by CAMA while BAC shall consist only of NEDs headed by an INED; has at least three members.	As specified in CAMA; the board chairman and the CEO should not serve on the audit committee but could attend its meeting(s) by invitation.	Dual audit committee recommended; for the statutory audit committee, a chairperson should be elected from amongst its members, and should have financial literacy; for private companies, members of the audit committee should be NEDs, and a majority of them should be INEDs where possible; BAC should be composed of at least three members.
Audit committee meetings	The code makes no specific recommendation on this, but request that the board should include its conduct in the corporate governance report.	To meet three times, and at least once with the external auditor.	Shall meet separately and periodically with management, internal auditors, and external auditors.	BAC members shall meet at least quarterly.	At least twice in a year, meet with the external and internal auditors at least once in a year.	The committee responsible for audit should meet at least once every quarter; the committee should meet with the head of the internal audit function and the external auditors without the presence of management at least yearly.
Audit committee financial literacy	The code makes no specific recommendation on this, but request that the board include a statement	Composed of NEDs at least two of whom shall have the requisite knowledge of accounting,	Members should have basic financial literacy and ability to read financial statements; at least one	BAC members should have basic financial literacy and ability to read financial statements; at	All members of the audit committee must be members of a recognised body of professional	All the members of the committee should be financially literate and should be able to read and

Table 2.2 Analysis of Nigerian Codes of Nigerian Codes of Corporate Governance

Issues analysed	PenCom (2008) Code	NAICOM (2009) Code	SEC (2011) Code	CBN (2014) Code	NCC (2016) Code	NCCG (2018)
Effective date	June, 2008	March 1, 2009	April 1, 2011	October 1, 2014	November 1, 2016	January 15, 2019
	on it in the corporate governance report.	financial analysis and financial reporting.	board member of the committee and one member of the shareholders association should know accounting or financial management.	least one of the members shall have relevant qualifications and experience; shall be a qualified accountant or other finance professional with experience in financial and accounting matters.	accountants in Nigeria.	understand financial statements; at least one member of the committee should be a financial expert, knowing accounting and financial management.
Multiple directorships	Not mentioned.	Not specific but implied; each NED shall demonstrate that he/she has sufficient time to devote to the business of the company.	A director of a company may hold concurrent directorships provided however that such concurrent directorships do not interfere with the director's ability to discharge his responsibilities to each board effectively.		Codified in S.7.9; No individual shall serve simultaneously as a director of more than three (3) companies in the communications sector; concurrent service on too many boards may interfere with ability to discharge responsibilities; prospective nominee should disclose memberships on other boards before election; serving directors should give information on other boards prospective appointments.	Directors may hold concurrent directorships (no limit fixed); directors should not be members of boards of competing companies; prospective directors should disclose memberships on other boards, and current directors should notify the board of prospective appointments on other boards. This information should be reviewed continuously by the serving Board members.

2.5.6 Comparative analysis of codes of corporate governance in Nigeria

Demaki (2011) observed that although all the Nigerian codes contain critical elements of corporate governance such as board composition, board size, the existence of board committees, there are still many disparities in their contents and provisions. The few disparities and similarities, as observed in this study, are in Table 2.2. An analysis under three categories (board issues, audit issues, and other issues) is discussed next.

2.5.6.1 Board issues

a) Codes' provisions on board size

The appropriate size of a corporate board has generated controversies in corporate governance (Larmou & Vafeas, 2010). Membership size is significant for its functioning and effectiveness. Therefore, the SEC (2011) code recommends a well-expanded and broad-based size that permits independence with at least five board members. The CBN (2014) code provides for a board with a maximum size of 20. The NAICOM (2009) code suggested a minimum board size of seven and a maximum of 15. PenCom (2008) code was silent on the number but instead suggested that corporate board members should not exceed that which allows it to employ simple and effective methods of work to enable each director to feel a personal responsibility and commitment (Section 4.1.6 PenCom 2008 Code). The NCC code recommends not less than five for large telecommunication companies, and the provisions in CAMA apply to smaller companies.

b) Codes' provisions on board composition

The board's size and the spread between executive directors and NED members is an indication of good governance, together with the presence of INEDs (Dedzo, 2015). The composition of a corporate board is usually a measure of board independence or otherwise. Consistent with this, the SEC (2011) code recommends that a corporate board of Nigerian registered companies should consist of a mix of both executive directors and NEDs with at least one INED notwithstanding the number of directors. The independent director, based on the SEC (2011) code, shall be a NED whose shareholding is not more than 0.1 per cent and does not have a family relationship with any present or past employee or company director. The director must not be any shareholder's representative who is capable of influencing the management team materially. The CBN (2014) code, on the contrary, recommends that the NEDs'

proportion on the corporate board should outnumber that of executive directors. At least two of these NEDs should be INEDs for banks, and one for discount houses.

The NAICOM code recommends a mix of both executive directors and NEDs, with at most 40% executives of the total board size. At least one of the NEDs should be independent, with no business interest or shareholding in the firm. Still, on the mix of both NEDs and executive directors, the PenCom code also shares a similar provision. However, to ensure independence of board members, the PenCom code recommends that each board should have at least one INED and an equal proportion of executive directors and NEDs on the board to ensure the balance of power and productive deliberation. The NCC code recommends a mix of executive directors and NEDs as well, with the majority being NEDs. It recommends at least one INED, and the minimum of two executive directors of which one of them should be the CEO, while larger companies may have two or more INEDs. Lastly, the NCCG stated the need for the right mix at the board level by recommending a mix of executive directors, NEDs, and INEDs, and that majority should be NEDs that are independent.

c) Codes on the separation of power

The independence or otherwise of board leadership is germane to the corporate governance debate in various countries as a result of divergent opinions emanating from two essential theoretical underpinnings, that is, stewardship and agency (Nicholson & Kiel, 2007). Agency theory insists on CEO non-duality to ensure an appropriate balance of power. Stewardship theory emphasises transparency and accountability at the top to guarantee independent decision making. The codes all agree on the separation of powers. This provision prohibits an individual from occupying the board chairman office and that of the CEO/MD at the same time. The CBN code was very critical about this when it recommended further that no two members with an extended family tie shall occupy the positions of chairman and CEO/MD or executive director of the bank and that of the bank's subsidiary at the same time. It further recommended no recognition of executive vice-chairman in any board structure. This provision prevents the concentration of power in an individual or close relation and avoids CEO domination and ascendancy. The NCCG has another dimension to this when it also recommends that if the board's decision is that a former CEO/MD or an executive director should be made chairman, a three years cooling-off period should be adopted.

The NAICOM code, besides supporting power decentralisation at the top, and separation of the two positions, that is, chairman and CEO/MD prevents members who belong to the same extended family from occupying the two offices at the same time. The PenCom code, on the other hand, recommends that, as much as it supports the separation and power decentralisation at the top, it is necessary to disclose situations, where two related individuals occupy the two offices in a company. Thus, unlike the NAICOM and CBN codes' that forbids persons with a family tie from occupying the two offices, PenCom code recommends the need to just disclose that such relationships exist. All the codes recommend that the position of board chairman be occupied by a NED to promote the desired independence of board members.

2.5.6.2 Issues on audit

a) Codes' provisions on the audit committee

An audit committee is a significant mechanism meant to support the board in promoting a reliable and upright financial reporting process (BRC, 1999; SOX, 2002; Treadway Commission, 1987) and firms form audit committee within the corporate board to oversee the firm's accounting policies and practices, and to ensure that the financial reporting processes are upright (Whittington & Pany, 2015). All the codes recommend the establishment of an audit committee in line with the recommendation in CAMA, except for the CBN code and NCCG which recommends a dual audit committee. They both recommend the establishment of a board audit committee (BAC) separate from that which is required by CAMA (which they referred to as a statutory audit committee and not a board committee). This recommendation of a dual audit committee has its consequences, which include the cost of running the two committees and the clash in responsibilities. In the NCCG, the board audit committee also performs all the responsibilities of the statutory audit committee (Sections 11.4.6 & 11.4.7). The CBN code is even more critical about this as it mentioned "statutory audit committee" in connection to its establishment only in Section 2.5.1 (i). Sections 5.2.1 to 5.2.6 are all recommendations concerning the board audit committee, its responsibilities, and attributes.

The PenCom code is silent on the responsibilities and attributes of the audit committee. It recommends the establishment of the audit committee in line with CAMA but allows each board to issue a term of reference that will guide and spell out the limit of the

committee's authority. The PFA/PFC boards have the option of being guided by SEC code recommendations on audit committees as an alternative.

Given that the audit committee is responsible for oversight on financial reporting, internal control and good governance, members of the audit committee should have a certain number of competencies (Chtourou, Bedard, & Courteau, 2001). There should be at least an individual on the audit committee who is considered an expert in finance or accounting. All the committee members need not be financial experts, but be knowledgeable on financial matters and they should possess a basic understanding of the principles of accounting, auditing and financial terms and definitions (Chtourou *et al.*, 2001). Most of the codes align with this recommendation except for the NCC code which is stricter on this. It recommends that all the committee members must belong to a recognised body of professional accountants in Nigeria. The NAICOM and SEC codes require that at least two must be accounting experts. In line with the SEC code, one of the accounting experts must be from the shareholders' nominees and the other from the board. The CBN code and the NCCG both recommend at least one accounting expert on the committee.

In Nigeria, boards of directors are now placing increasing reliance on audit committees to oversee reporting and internal controls (Akinsulire, 2011). In line with SOX (2002), all committee members must be independent in order to preserve the integrity of the auditing process. The audit process is an interactive session between the committee, auditors, and management. Ensuring that all the committee members are independent is meant to protect investors and afford the shareholders trust and assurance in the company's published financial reports. The NAICOM and CBN codes are particular about the chairman of the committee being an INED, while NCCG only recommends for the statutory audit committee to have a chairman elected amongst them. In terms of composition, NAICOM code allows one executive director and the rest should be NED. This is contrary to international best practices that emphasise an entire independent membership of the audit committee. The SEC code recommends that majority shall be NEDs which creates a loophole for infiltrating the audit committee with executive directors. It is a shadow of the NAICOM code recommendation. The CBN code recommends all members to be NEDs but headed by an INED; this recommendation conforms in a way with international best practice. The flaw in the CBN code recommendation is that it is to be observed by the BAC, this is one of the spill-over

effects of the dual audit committee, and the NCCG recommendation for private companies to have a mix of NEDs and INED, but that the majority should be INED. While this looks attractive on the surface, it is similar to the CBN code's recommendation because NCCG also recognises and recommends dual audit committee. Specifically, this NCCG recommendation is for private companies, and this makes the intention of the recommendation unclear. The NCC code is not specific about the composition of the audit committee members but recommends that whatever is the composition, it should be in the corporate governance report. The NCC code allows the board of directors a free hand in determining what it deems right in terms of the audit committee composition. To recap, international best practice on this is that all members of the audit committee be independent (SOX, 2002).

The CAMA (2004) as amended recommends an equal number of directors and shareholders subject to a maximum of six members. SOX (2002) and the UK Code (2010) both recommend a minimum of three members. All the codes that establish its audit committee in line with CAMA (including CBN code and NCCG that recommends dual audit committees) adopt its recommendation on size and the equal mix of directors and shareholders. The CBN code recommends at least three members for BAC while NCCG remains silent about the BAC size.

An audit committee should facilitate communication between the board, internal and external auditors alike. The frequency of meetings indicates diligence in resolving any immediate issues that might arise in audit engagements including the accounting internal systems and controls and offers a better oversight environment, which may assist in detecting financial statements errors (Habbash, 2010). The CBN code and NCCG recommend quarterly meetings for the audit committee, but the NCCG extends its recommendation to cover at least a yearly meeting with the head of the internal audit function and the external auditors without the management. The NAICOM code recommends that the committee meet three times, and at least once with the external auditors. The NCC code's recommendation is like that of NCCG in terms of meeting yearly with the external auditors and the internal audit head but differs in recommending two committee meetings in a year. The SEC code is not specific on the number of the meetings when it recommends that the committee shall meet with the management, external auditors, and internal auditors separately, and periodically. It gives the committee the discretion to meet as it deems fit.

b) Codes' provisions on external audit

Baxter (2007) observed that external auditor also plays a vital task in ensuring the effectiveness of the audit committee attributes and quality financial reporting. Auditors should be motivated to engage with their clients' board of directors to ensure better expertise and independence of audit committee members. External auditors are crucial to the governance quality and stakeholders' trust of any firm. However, some sectoral codes do not mention anything on the external audit. The PenCom (2008) and NCC (2016) codes, for example, have no recommendations or provisions concerning an external audit. The NAICOM, SEC, CBN codes, and the NCCG have provisions and recommendations relating to the external audit.

These codes also vary in their recommendations, especially on audit firm tenure. The NAICOM code recommends a maximum of five years and is silent about the condition for re-engaging the same audit firm, although it recommends the periodic performance appraisal of the external auditor. The SEC and CBN codes recommend ten years maximum tenure but differ on the condition for re-engaging the same audit firm. The SEC code recommends a seven years cooling-off period while the CBN code recommends a ten year cooling off period. The NCCG has the same recommendation with the SEC code on tenure and re-engagement, but it extends it to include the rotation of the audit engagement partner every five years. To appoint a retired audit partner to the client's board, NCCG recommends an appropriate cooling-off period of at least three years. The CBN code forbids the engagement of an audit firm if one of the bank's top officials was an employee of the firm and worked on the bank's audit during the past two years. The NAICOM code is stricter in terms of tenure which is five years, while the SEC code is stricter in terms of audit partner rotation where it recommends three years against five years of NCCG. All these are measures to safeguard the external auditors' independence and avoid conflict of interest in their duties. The provisions are to limit familiarity which could prevent auditors from performing their responsibilities diligently and independently. The NCCG sees an external auditor as one who gives an independent opinion on the veracity or otherwise of the financial statements while assuring stakeholders of its reliability.

2.5.6.3 Other issues

a) Jurisdiction of codes

While all the codes contain essential corporate governance elements, there are differences in their recommendations and enforcement mechanisms. The critical elements of corporate governance, which are present in their provisions, include boards of directors' issues, independent directors, board committees, accountability, and transparency, reporting and mandatory or self-regulatory requirements of the provision of the code. In all these codes, only the SEC 2011 code and NCCG 2018 apply to all the Nigerian public companies irrespective of sector. The others are sector-specific codes, and they include PenCom (2008), NAICOM (2009), CBN (2014), NCC (2016). It justifies the case of multiplicity of codes raised by some scholars (Aina & Adejugbe, 2015; Demaki, 2011; Nuhu, 2017; Opara & Alade, 2014; Osemeke & Adegbite, 2016). All Nigerian listed companies are to comply with their sectoral codes besides those issued by the SEC and FRCN.

b) Codes' provisions on claw-back policy

The NCCG advocates for the implementation of a claw-back policy to recover excess or undeserved rewards, such as bonuses, and the likes, from directors and senior employees. The code enumerates circumstances that can trigger the claw-back policy. This policy is peculiar only to NCCG as it can reduce manipulative incentives and excessive risk-taking on the part of management. The code does not specify a "look-back" period, that is, a recall period in applying the claw-back policy, as such companies may decide on the period and how to execute the recovery depending on their peculiarities.

2.6 Audit committee and corporate governance codes

The audit committee is a strong mechanism of corporate governance saddled with the responsibilities of ensuring quality financial reporting and disclosure and in reducing information asymmetry among various stakeholders. A large body of literature examines earnings management using the agency theoretical framework where managements display opportunistic behaviour (Louis & Robinson, 2005). As such, corporate governance mechanisms are supposed to act as deterrence devices and preserve shareholders' wealth and consequently protecting stakeholders' interest. Audit committees (a corporate governance mechanism) oversee and evaluate decisions taken by managers. The audit committee, while safeguarding the stakeholders' interest, also

serves as a bridge between the board (principal's representative) and management (agent), thereby reducing asymmetric problems. Examples of studies that document managers' tendency to manipulate firms' accounts to maximise their interests at the detriment of other stakeholders include Agrawal and Cooper (2010), Becker, DeFond, Jiambalvo, and Subramanyam (1998), Healy (1985), Marquardt and Wiedman (2004), McNichols and Stubben (2008), and Teoh, Wong, and Rao (1998).

2.6.1 Shareholders' associations

There is a shift which seems to embrace block voting through shareholders' associations as a way of responding to the dominance of major shareholders in Nigeria (Enyioko & Onwusoro, 2014). This shift is characterised by an increase in shareholders' activism which has brought about general awareness, participation and control by shareholders on corporate governance (Amao & Amaeshi, 2008). The connection or alliance between shareholders in Nigeria is made possible through both private dynamism and government mediation (Amao & Amaeshi, 2008; Enyioko & Onwusoro, 2014; Inyang, 2009). In promoting accountability, good corporate governance and encourage public participation in companies, the Nigerian government inspired and enabled the formation of a network of shareholders' associations; seven zonal associations were formed and registered in 1992 and are located in Kaduna, Kano, Ibadan, Jos, Lagos, Port Harcourt, and Onitsha (Amao & Amaeshi, 2008; Enyioko & Onwusoro, 2014). The number of shareholders' associations registered with the CAC in Nigeria currently is 111 (SEC, 2019). Amao and Amaeshi (2008) and Okike (2007) reported laudable achievements in terms of shareholders' activism; shareholders' associations have rejected published annual financial statements of some companies, resisted the appointment of certain directors, and challenged some proposed mergers in the court. The trend of shareholders' activism has changed in Nigeria, as reported by Uche, Adegbite, and Jones (2016); shareholders' activism has taken a negative dimension, as executives of shareholders' associations now maintain a close and personal bond with the management of the companies they are to check. This bonding obstructs their activism and makes them culpable in several management's corrupt behaviours to the detriment of the shareholders that ought to be protected (Uche *et al.*, 2016). Currently, shareholders' associations have become post-event commentators, exhibiting pseudo activism when the damage has been perpetrated, especially when a company's poor performance is made public. This development is harmful and unworthy of the

association because it can ruin the established culture of accountability and transparency. Enyioko and Onwusoro (2014) report that shareholders are regarded as the corporate governance monitors; anything short of this is viewed as throwing away their investment.

2.7 Challenges of corporate governance reforms in Nigeria

In spite of the laws and the governance codes in Nigeria, the challenge mostly lies in the weak, inadequate and inefficient regulatory and legal frameworks to enforce and monitor compliance with the CAMA and the corporate governance codes in Nigeria (Amaeshi, Adi, Ogechie, & Amao, 2006; Inyang, 2009; Nmehielle & Nwauche, 2004; Okeahalam & Akinboade, 2003; Okike, 2007; Oyejide & Soyibo, 2001). The following challenges exist in the corporate governance environment in Nigeria: institutionalised corruption, poverty caused by high unemployment, weak regulatory frameworks, the collapse of moral values, and laxity on the part of regulatory agencies,

2.8 Summary

The focus of the chapter has been to understand the country's historical development of corporate governance practices vis-à-vis the evolution of acts, regulations and codes aimed at achieving international best practices. Good governance both in the political and corporate environment arenas have been a fundamental issue since Nigeria gained independence in 1960. An attempt was made to analyse the growth and developmental efforts from independence to what the country is today. The chapter highlighted several challenges of Nigeria, just like any other economy in the world. The emphasis on the need to institutionalise the principles of best corporate governance practices is similar in both the developed and the emerging economies. The government thus saw the need to introduce the first code of best practices for listed companies, the SEC (2003) code. It came after the promulgation of the CAMA in 1990 (regarded as the corporate constitution), which replaced the Company Act of 1946. The code came to inculcate the culture of corporate governance that promotes accountability, transparency, and ethical values in Nigeria. Shortly after the SEC code, other government regulatory agencies saw the need to introduce codes that would meet the challenges that are peculiar to their sectors. The regulatory agencies are the CBN, NAICOM, PenCom, and NCC. It led to another era of the need for a unifying code, and the FRCN introduced the NCCG which was released in 2018 and became active in January 2019. The chapter examined these

codes in the context of the study by comparing their provisions and recommended practices that can enhance audit committee attributes and combat or discourage manipulations in the Nigeria corporate environment, especially listed companies. The next chapter reviews the theories of corporate governance while identifying the specific theories underpinning this study.

CHAPTER THREE: THEORETICAL AND ANALYTICAL FRAMEWORK

3.1 Introduction

The corporate governance environment of a country mainly encompasses its economy, capital market, and regulatory frameworks. Effective corporate governance mechanisms guarantee timely, fair and accurate information of a firm (Burak, Erdil, & Altindag, 2017). This study deals with audit committee attributes which are an essential mechanism of corporate governance. The previous chapter provided insight into the country context of the study by reviewing several enactments of Acts and codes of corporate governance that have taken place in Nigeria in the past decades to date. It also appraised the infrastructural and institutional developments. It presented an overview of the theoretical framework on corporate governance environment in Nigeria primarily as it affects this study. The chapter therefore builds on the foundation laid in Chapter Two by reviewing relevant theories on corporate governance and identifying the theory or theories that best suit this study. This chapter is in three sections. Section 3.2 presents the theoretical framework. It discusses relevant theories relating to corporate governance, generally with a specific emphasis on the theories underpinning this research study, and the justification for the choice of the theories. Finally, section 3.3 summarises the chapter.

3.2 Theoretical framework

A theoretical framework refers to the process of showing how an identified core set of connectors within a topic fit together (Adeyemi, 2019). The theoretical framework comprises of the selected theory/theories that support the researcher's thought on the perception and plan in conducting a research topic, and the concepts and definitions from that theory that suits the topic (Grant & Osanloo, 2016; Imenda, 2014). Mertens (1998) asserts that it has implications for every decision made in the research process. Stacks and Salwen (2009) support the importance of a theory by stating that theory organises and enhances our ideas, like a map for exploring unexplored territories. This is similar to the view expressed by Grant and Osanloo (2016) that it is the "blueprint" for the entire research. Chinn and Kramer (1999) also opine that a theoretical framework is a structure that presents the theory which explains why the problem under study exists. Research is theoretical as observed by Grant and Osanloo (2016) that identifying and including a theoretical framework is a necessity in every sound research.

The choice of theory provides a structure to the entire research, and it provides a lens or worldview from which to support one's reasoning on the problem and the data analysis (Anderson, Day, & McLaughlin, 2006; Grant & Osanloo, 2016). This is similar to the opinion expressed by Mohammad, Hamdeh, and Sabri (2010), that theory is the fundamental organisation of knowledge concerning a problem as well as its solution.

Prior studies, for example, Kalbers and Fogarty (1993), revealed that the agency theory framework is not sufficient to evaluate effectiveness of audit committee and to explain variations in its attributes because there exists an assumption that the audit committee is a function of management's desire to attract attention by increasing the visibility of its actions (Kalbers & Fogarty, 1993). An agency framework assumes that management is capable of manipulating the audit committee (Abbott & Parker, 2000). A mixture of theories is best in describing the efficiency and effectiveness of good corporate governance practices (Yusoff & Alhaji, 2012).

In a corporate board formation, two main parties exist; resource providers and the management team. Between these parties, a possible clash of interests may arise (Teixeira, 2017). This clash, often called the agency problem, occurs from two distinct sources; each party has different goals and proclivities, and each one of them lacks sufficient facts as to the others' inclinations, deeds and information (Rampling, 2012; Teixeira, 2017). The principal-agent relationship, in the opinion of Rampling (2012), is focused on the advantages and disadvantages that arise in the transaction between them.

The formation of the audit committee is one means available to the board of directors in reducing this clash between managers and shareholders (Islam, Islam, Bhattacharjee, & Islam, 2010; Lee, Park, Rhee, & Lee, 2018). The effectiveness of the audit committee is a vital aspect in the delivery of trust and confidence in financial reporting and risk management of a corporate entity. In alignment with this statement, Tugman and Leka (2019) posit that the responsibilities of the audit committee are increasing globally beyond their core oversight functions thereby exposing them to pressure both in terms of time and expertise required in fulfilling all these responsibilities. Bratten, Causholli, and Sulcaj (2020) reported that the market reacts positively to the reports indicating the audit committee's strong oversight, consistent with the perceptions of higher financial reporting quality. It implies that attracting investment will require the formation of an audit committee which should be encouraged by stock exchanges around the world

(Makin *et al.*, 2008). Given this evidence, there is hardly any stock exchange around the world that does not include the formation of an audit committee in its corporate governance template. The theory which strongly supports the formation of an audit committee is traceable to agency theory (Chen, Duh, & Shiue, 2008). Chen *et al.* (2008) suggested that an audit committee can assist in maintaining a balanced relationship between the management and the shareholders. Jensen and Meckling (2004) support this view by proposing agency theory.

The basis of this theory is on the conflicting interest between different parties in a contractual relationship, that is, shareholders and debt holders on the one hand (the principal), and corporate managers (the agent) on the other. In the opinions of Imam and Malik (2007) and Vaez, Korahi, and Elhaii (2010), the desire for corporate governance emanated from these potential conflicts of interest among the various stakeholders.

The growth of corporate governance is affected by the interactions of theories from different disciplines which includes accounting, finance, economics, management, law, and organisational behaviour (Durisin & Puzone, 2009; Mallin, 2011). Blair (1996) identified the following theories as relevant to corporate governance: agency theory, transaction cost theory, market myopia theory, and stakeholder theory. Donaldson and Davis (1991) advocated the stewardship theory. Several theoretical frameworks have evolved to illuminate and explore the intricacies of corporate governance (Solomon, 2010; Yusoff & Alhaji, 2012).

This section identifies the following theories of corporate governance as illustrated in Figure 3.1, focusing on their contribution in the development of corporate governance: agency theory, stakeholder theory, stewardship theory, resource dependence theory, signalling theory, prospect theory, market myopia theory, transaction cost theory, role theory, actor-network theory, power theory, and managerial hegemony theory. Figure 3.1 portrays the theories that surround corporate governance, as discussed in this chapter. The list is, however, not exhaustive. The discussion follows the pattern in Figure 3.1 in a clockwise direction beginning with the two underpinning this study.

Despite that the concept of corporate governance encompasses several theories, it is considered that agency theory and stakeholder theory will significantly contribute to the current study by adequately analysing and explaining the impact/effect of audit

committee attributes on RAM. The next section discusses the justification of choosing the two theories that underpin this study, that is agency and stakeholder theories.

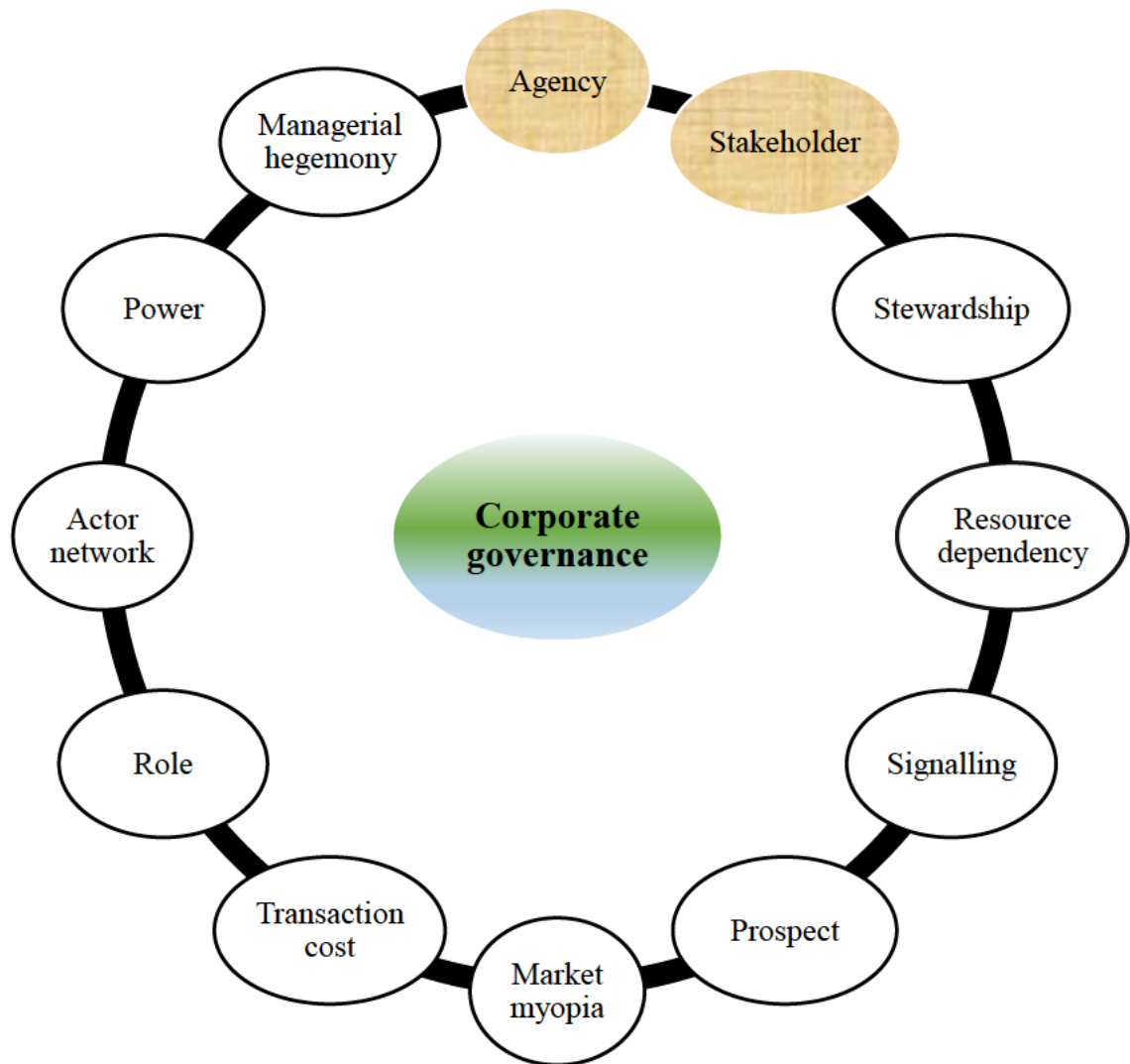


Figure 3.1 Theories surrounding corporate governance indicating those underpinning the study

3.2.1 Justification for the choice of the theories underpinning this study

The choice of these theories (agency and stakeholder) is deeply rooted in their definition, approach and the web of relationships intertwined in corporate governance. Corporate governance is about a relationship between a company and its shareholders, although this approach is narrow. It is a paradigm rooted in traditional finance, and expressed in agency theory. In a broader perspective, Yusoff and Alhaji (2012) see it as

a nexus of relationships not only between the management and the shareholders but also between the management and a wide range of other stakeholders such as customers, employees, creditors, and debtholders, among others. Peters and Bagshaw (2014) assert that this position is the view expressed in stakeholder theory.

Several theoretical frameworks, as shown in Figure 3.1, have evolved to explain and analyse corporate governance. Each of these theories approaches corporate governance in a slightly different way, using different terminology and views, arising from a different discipline, e.g., accounting, law, management, finance, organisational behaviour, and economics (Blair, 1996; Mallin, 2011; Peters & Bagshaw, 2014; Solomon, 2010). These theories though have marked differences between them; they each try to analyse the same problem from varying perceptions, while still sharing considerable commonalities. Further, the literature reveals that there is an overlap among the theories (Charron, 2007; Crowther & Jatana, 2005; Heath & Norman, 2004; Rampling, 2012; Rapp, Schellong, Schmidt, & Wolff, 2011). Even though corporate governance encompasses several theories, agency theory and stakeholder theory capture the essence of the current study.

It is proper to balance the needs and interests of the different stakeholder groups. However, it is necessary to intensify efforts at achieving such a balance (Bourne, 2010). Hill and Jones (1992) and Feizizadeh (2012) also pointed out that many of the concepts and language of agency theory apply equally well to stakeholder–agency relationships. Overall, they observed that principal–agent relationships, as defined by agency theory, reveal a subset of the more elaborate class of stakeholder–agent relationships. This assertion further justifies the choice of these two theoretical frameworks as the underpinning frameworks for this study.

Abbott and Parker (2000) suggested independent, qualified audit committee members as a mitigating factor to management's ability to manipulate the audit committee. Independent, qualified audit committee members have incentives to engage with the management, rather than agree with them in all situations (Abbott & Parker, 2000). Therefore, once the audit committee is composed of independent, qualified members, the ability of management to manipulate such committee is at least reduced if not eliminated.

Given the above, agency and stakeholder theories are fundamental in examining the impact of audit committee attributes on RAM. RAM is an injury to all stakeholders since its motive is to deceive the investing public. In the opinions of Maher and Andersson (2000), Yusoff and Alhaji (2012), and Abdullah and Valentine (2009), among the most critical theories of corporate governance are the agency theory and stakeholder theory.

The operationalisation of agency and stakeholder theories in this study is in two dimensions and perspectives. First, the role of audit committee attributes serves as a mechanism of corporate governance in reducing information asymmetry as well as agency cost through quality oversight functions. A competent audit committee aligns the interest of the principal and agent by discouraging self-serving interest which is critical in agency theory. It is the self-serving and opportunistic desires of the agents that cause all manners of manipulations, which also includes RAM. This study examines the impact of the audit committee attributes on RAM. Second, the role of the codes of corporate governance can only be useful if all the stakeholders are diligent in ensuring strict adherence to the recommendations of the codes. It is not enough to have the codes, because a code can only achieve its purpose when there is strict compliance with its recommendations. Strict compliance will ensure good corporate governance that will promote accountability and quality financial reporting devoid of RAM. This study thus also examines the effectiveness of the stakeholders in ensuring compliance with the codes of corporate governance by assessing the impact of the SEC (2003, 2011) Codes on RAM.

3.2.1.1 Agency theory

The agency theory originated from the work of Berle and Means (1932) and was advanced later by Jensen and Meckling (1976, 2004). Agency theory has been broadly employed in management studies and appears to be the dominant paradigm in several aspects of corporate governance research (Bendickson, Muldoon, Liguori, & Davis, 2016; Marie L'Huillier, 2014). In considering the literature on agency theory, defining the notions of principal and agent are the primary issues of concern (Teixeira, 2017), especially as it concerns a profit-oriented organisation or corporation. This theory is non-effective when transposed to the context of a not-for-profit entity because such entity lacks an identifiable owner (Teixeira, 2017). In the opinion of Saltaji (2013), the agency theory is considered as the leading theory in the business world, separating

ownership from management, thereby creating an agency relationship between the principal/shareholders, and the agent/management. In the opinion of Ping and Wing (2011), agency theory is considered a neoclassical economic theory and mostly used in corporate governance debates.

On the agency relationship, Cossin and Lu (2019) view agency relationship as a contractual process whereby owners delegate some of their authority and responsibilities to a team consisting of expert member(s) and expect them to exercise their expertise in the best interest of firm's operational success. Islam *et al.* (2010) assert that if the corporation is to fulfil its potentials, there would be the need for a little guidance of the market's invisible hand. The corporation could indeed be the engine of growth, enterprise, and wealth creation, but human frailty would rather be a hindrance. The assumption is that those in control of the corporation would fulfil the proposition that individuals are motivated primarily by self-interest in an agency relationship (Besley & Ghatak, 2014).

The principals delegate the decision-making responsibility to their agents (Choudhury, 2014). On the other hand, the assumptive idea is that the agent's decision affects the parties involved in the contractual relationship. In economic and business life, such relationships are pervasive and are elements of the more general problem of contracting between entities in the economy (Besley & Ghatak, 2014). For example, in a public corporation, these contractual relationships exist between (a) the shareholders and the corporate board, (b) the corporate board and the executives, and (c) the executives and their subordinates. In the three relationships mentioned above, it is all about the principal and the agent. The main reasons behind the relationship are:

- to utilise the specialised skills and private information possessed by the agent; and
- to relax constraints on the principal's time.

The theory assumes that these two groups have different priorities as they relate to each other. These differences exacerbate the problems in the agency relationship by unsuccessful attempts by the principal/shareholders to monitor the agent/management, with enormous attendant costs (Islam *et al.*, 2010; Michael, 2013), so their interests towards the company consequently lack alignment (Boshkoska, 2015).

In an agency relationship, as observed by Islam *et al.* (2010), the differences or the non-alignment between the two could be a combination of either of these scenarios:

- Their different attitudes towards risk, considering the principal as risk-neutral and the agent as risk-averse;
- Their duration with the organisation, as that of the agent might be shorter than that of the principal;
- The agent has fixed earnings (when payments of incentive are lacking) while the entitlement of the principal is the residual claim;
- The principal does not participate directly in the control and management decision-making processes (separation of ownership from management); and
- There is information asymmetry between the agent and the principal; the principal is oblivious regarding many of the agent's activities in detail.

Due to above different positions between the agent and the principal, the problems with agency relationships may arise because the parties in the association are assumed to seek to maximise their own best interests subject to the constraints imposed by the agency structure. Lee *et al.* (2018) recognises agency conflicts between these parties:

- between principal/shareholders and top management/agent,
- between majority and minority shareholders, and
- between owners/shareholders and debt-holders/creditors.

Young *et al.* (2001) identified some of the factors that make the agency problem worse in emerging economies, for example, family ownership and control, state-owned enterprises, weak legal protection of minority shareholder rights, concentrated ownership structures, and strategy and competitiveness.

The agency theory assumes that, by itself, maximising the principal's wealth will be impracticable because the agent and principal have varying objectives, as noted above. The misalignment (mentioned earlier) is the reason for agency problem which have two primary sources: adverse selection and moral hazard (Ali & Kamardin, 2018; Boshkoska, 2015). The first source, adverse selection, is when managers hide from the

shareholders important information regarding their traits and ambition. It describes a situation where one party in a contractual relationship has more accurate and contrary knowledge than the other partner. The partner with less knowledge is at a disadvantage to the partner with more knowledge (Heath & Norman, 2004; Islam *et al.*, 2010). As a way of motivation, managers receive incentives (financial incentives) like bonus payments, stock options, profit-sharing, and others to encourage performance. Suppose two managers with the desire to achieve a profit threshold that will qualify them for a financial incentive, they both eventually achieve this threshold, but one of them achieves it through RAM practices. However, the shareholders without further information cannot differentiate who engages in RAM to achieve the threshold but will instead approve the financial incentives to both managers based on perceived performance. The manager that manipulates real activities knows fully well that he could not have achieved the threshold in the ordinary course of operational activities. It leads to adverse selection. The company is at a disadvantage for granting financial incentives to both managers.

On the other hand, the second source, moral hazard, is when the agents act in self-interest and with opportunistic behaviour. It is the risk that the agent will not use the firm's resources as was intended (become wasteful) or get involved in unnecessary risks or become nonchalant in reducing risk (Heath & Norman, 2004; Islam *et al.*, 2010; Michael, 2013). This condition causes the manager to use their more intimate knowledge of the activities within the firm to enrich themselves to the detriment of the shareholders. The agent/management withholds vital information, which implies that management can take actions beyond the knowledge of the shareholders (Velasco, 2006). Such actions constitute a breach of contract which is unethical. Also, the moral hazard problem adds significantly to the incompetence of management effort which may eventually affect or harm the company's worth (Michael, 2013).

The agency cost is a function of information deficiency about the agent's activities in any enterprise, and include the costs of monitoring and analysing the management's performance, the costs of devising a bonus scheme which rewards the agent for maximising the welfare of the principal and the costs for determining and enforcing policy regulations. Such costs will also depend on the supply of replacement managers. Competitive pressure in the market for managers will limit the freedom of agents to pressure their interests (Fama, 1980). Similarly, agency costs will adversely affect the

opportunities available to sell the enterprise in the market. Shareholders bear the burden of agency costs (Ross, Westerfield, & Jaffe, 2010). Jensen and Meckling (1976) and Saltaji (2013) argue that agency costs are the sum of (a) the monitoring cost of the principal, (b) the bonding cost by the agent, and (c) the residual loss.

Monitoring costs

Monitoring management actions are inclusive in agency cost, and judging managers' performance depends on maximising the shareholders' wealth. Monitoring costs are the expenditures paid for controlling, rewarding and measuring managers' behaviours. There is also a possibility to add in the auditing cost, and the hiring and training costs for top management. In the beginning, the shareholders bear these costs, but much later, it becomes managements' burden since their reward depends on covering these costs (Fama & Jensen, 1983). Also, these costs are affected by regulations and corporate governance codes in Nigeria. Most of the codes reviewed in Chapter Two require companies to report compliance through a statement presented at the AGM and forwarded to regulatory authorities. Governance codes ensure the monitoring function of control systems used to reduce conflicts of interests between principal and agent.

Bonding costs

The cost of establishing and acting based on the monitoring system in place is called a bonding cost (Jensen & Meckling, 1976; Saltaji, 2013). Bonding costs occur when managers remain committed to a binding contract that inhibits or limits their activities. Consider a manager that agrees to remain in the employment of a company even after a successful take-over bid. It implies that the manager foregoes other potential appointment opportunities; the foregone employment opportunities are agency bonding costs. Bonding costs could also be maintaining a good reputation. Managers can limit bonding costs through managerial balancing as decreasing monitoring costs is equal to increasing in bonding costs. Conflict of interests between shareholders and managers can be solved through contracts, bonding managers to act precisely according to the shareholders' interests in any circumstance facing the company (Saltaji, 2013).

Residual loss

Residual loss is the loss that remains after monitoring and bonding costs. The difficulty of aligning the interests of shareholders and managers will continue to exist coupled with other differences between managers' desires and the decision to maximise the

benefits of shareholders. The generated agency loss from conflict of interests is known as residual loss. This loss is not amenable to shareholders' expectations or high-level managers' performance. Hence, maximising managers' roles will attempt to minimise agency costs (monitoring cost, bonding cost, residual loss) to promote an idea of giving bonuses for managers to sign contracts appropriating imposing costs (monitoring cost and bonding cost) making differential cost equal to differential benefits to cut down residual loss.

Solving agency problems should reduce agency cost (Besley & Ghatak, 2014; Saltaji, 2013). Agency problems in modern economies are pervasive due to the extensive specialisation and division of labour. Therefore, how to solve them within organisations, or between individuals or organisations, is a crucial determinant of the productivity of organisations as well as countries (Besley & Ghatak, 2014). Saltaji (2013) proffered six options at solving agency problems which include: (i) the managerial labour market, (ii) corporate boards, (iii) corporate financial policy, (iv) block holders and institutional investors; (v) the market for corporate control; and (vi) managerial remuneration

Corporate governance is an elaborate theory that seeks to align the interest of management with that of the shareholders (Besley & Ghatak, 2014; Dühnfort, Klein, & Lampenius, 2008). Several definitions of corporate governance emphasise the potential conflict of interest between insiders (managers, boards of directors, and majority shareholders) and outsiders (minority shareholders, and creditors) of the firm (Bendickson *et al.*, 2016; Dühnfort *et al.*, 2008; Marie L'Huillier, 2014).

Therefore, corporate governance specifies the distribution of rights and responsibilities among the different actors inside the corporation (Goyer, 2001). Levitt and Dwyer (2002) defined corporate governance as the relationship between the investor, the management team and the board of directors of a company (Levitt & Dwyer, 2002). Parker (2017) viewed corporate governance as the set of mechanisms that influence the management's decisions based on the separation of control and ownership, and this separation gives rise to potential conflicts of interest among stakeholders in the corporate structure. These conflicts of interests often occur from two main viewpoints. First, various stakeholders have diverse goals and preferences. Second, the stakeholders

have insufficient information as to each other's actions, knowledge, and preference (Imam & Malik, 2007; Vaez *et al.*, 2010).

Ward, Brown, and Rodriguez (2009) reiterate that the basis for corporate governance exists in an environment of incomplete contracts. Incomplete contracts entail agents/managers having more information than the principals/shareholders and, as such, this leads to a divergent of interest between the two parties. In highlighting the relevance of agency theory in corporate governance, Christopher, Sarens, and Leung (2009), noted that the essential concern of corporate governance arises from the separation of ownership and control in modern public corporations. Imam and Malik (2007) observed that corporate governance arises from the potential for agency conflict. It is similar to the opinion expressed by Vaez *et al.* (2010) that it also leads to an agency relationship. Jensen and Meckling (2004) define agency relationship as a contract under which the principal engages the agent to act on his/her behalf.

The literature on earnings manipulations has shown that agency theory is an underpinning theory that can clearly explain the reasons behind this unethical practice which is the basis for all the conflicts and problems mentioned earlier (Ali & Kamardin, 2018). For example, the Enron financial saga was a result of managers' intentions to increase their benefits at the cost of other stakeholders (Arnold & De Lange, 2004). The flexibility of accounting standards and discretionary expenses provides managers with the opportunity to manipulate earnings (Dechow & Skinner, 2000). As such, managers tend to affect reported earnings which assist them in directing the reported earnings in such a way that they reflect their desires instead of the shareholders' desires (Ali & Kamardin, 2018). Such opportunistic behaviour provides a basis for numerous studies to use agency theory as the underpinning concept in the investigation of earnings manipulations (Alexander, 2010), such as in this study.

Close monitoring is possible when owners themselves can actively participate in this monitoring process. However, because of high-cost involvement and in some cases due to lack of expertise, knowledge, and dispersion (especially with public firms), they cannot be actively involved in this process. Nevertheless, the board has to put in place a monitoring mechanism because of its oversight responsibilities to shareholders (Johnson, Daily, & Ellstrand, 1996). DeZoort, Hermanson, Archambeault, and Reed (2002) argued that in order to deal with the problem arising from agency relationship, the board has to assume the oversight role of monitoring the CEO and other managers,

approving the firm's strategies and evaluating the control systems. The board usually hires an expert and knowledgeable body to oversee management activities on its behalf. The audit committee is such a committee under the corporate governance framework to which the board delegates some of its oversight responsibilities. Chen *et al.* (2008) studied non-US companies trading shares in US market and argued that a competent audit committee could resolve the agency problems of foreign companies no matter which corporate governance model is in place in the company's home country. Dey (2008) found that the level and intensity of the agency problem is less in those firms where the audit committee is more effective in terms of composition and functioning. Abbott and Parker (2000) are of the view that once the audit committee is composed of independent, qualified members, the ability of management to manipulate such committee is limited if not eliminated thereby reducing agency costs and information asymmetry. It further informs the choice of agency theory as one of the theories underpinning this study.

Watts and Zimmerman (1990), several decades earlier, explained positive agency theory to mean linking managerial incentives to voluntary financial disclosure. Good financial reporting practices ensure more managerial disclosures (Choudhury, 2014). Thus, the financial reporting system has a role in resolving the agency problem. Since managers usually do not have to interact frequently with shareholders, it is appropriate for the communication gap to exist which will affect the level of trust between the parties. The audit committee can act as a bridge to such gaps (Islam *et al.*, 2010). Hay, Knechel, and Ling (2008) assert that the audit committee serves in a complementary capacity to an external auditor in monitoring management activities. Chen *et al.* (2008) argued that an audit committee could help to maintain a healthy relationship in the contract between management and shareholders. The moment this is achieved, the practice of RAM may decrease while accountability and good corporate governance will become a culture in the corporate environment.

3.2.1.2 Stakeholder theory

Numerous definitions exist to identify stakeholders, ranging from broad conceptualisations that regard stakeholders as any individual or group having an interest in or being affected by the corporation (Freeman, 1984), to mid-range theories that define stakeholders as those groups or individuals who assume some degree of risk-bearing activity with the corporation (Clarkson, 1995), to narrow views which only

recognise stakeholders whose relationship to the firm is primarily economic (Friedman, 1970). It is necessary to distinguish between stakeholders by their importance to the survival of the firm. Freeman identifies primary stakeholders as those that have a formal, official, or obligatory responsibility with the firm and all others are secondary stakeholders (Shankman, 1999). Clarkson made the distinction between voluntary and involuntary stakeholders based on exposure to or acceptance of risk-bearing activities with the firm (Clarkson, 1995). Regardless of the definition of stakeholder, this theory encompasses a relationship based on a two-way exchange; stakeholders are not only affected by the corporation but can also influence its activities as well. The most extreme proponents of this theory suggest that environment and future generation are in stakeholders (Peters & Bagshaw, 2014). Stakeholder theory presents the company as a separate organisational entity that connects to different parties in achieving a wide range of purposes (Fontaine, Haarman, & Schmid, 2006). Stakeholder theory is a theory of organisational ethics and management. In this theory, managers should not only maximise shareholders' value but also enhance the profits of the stakeholder group.

Stakeholder theory adjusts or corrects the wrong impression found in agency theory that seeks to identify shareholders as the only interested party in a corporate setting (Harrison, Freeman, & Abreu, 2015). The structure of stakeholder theory widens agency problem to include several principals (Sanda, Mikailu, & Garba, 2010). Keay (2010) suggests that stakeholders include shareholders, employees, suppliers, customers, creditors, communities in the vicinity of the company's operations, and the general public. Resolving the issues of which group of stakeholders deserve management's attention is the concern of stakeholder theory (Peters & Bagshaw, 2014; Rawlins, 2006). The theory argues that it is a social responsibility of the companies to consider the interests of all parties affected by their activities (Peters & Bagshaw, 2014). In the opinion of Freeman, Wicks, and Parmar (2004), an organisation that wants to be effective needs to consider every relationship that can affect or be affected by the achievement of its organisational objectives.

The objective of corporate existence, according to the stakeholder theory, is not the prerogative of the shareholders only (Freeman, 1984; Rampling, 2012). The close connection to corporate social responsibility (CSR), which is the mainstream of the corporate tendency, is an apparent contribution of the stakeholder theory. Literature and research argue that companies which concentrate on CSR are more likely to get

acceptance and benefits (Rampling, 2012). It is, to some extent, beneficial to the corporation, in the long run, at least (Charron, 2007). The objectives of corporate governance have changed from the “maximisation of the interests of shareholders” to “maximisation of the value of the company” (Rawlins, 2006).

In the opinion of Teixeira (2017), stakeholder theory promotes the emphasis of human capital, and the traditional theory holds that the owners of firms are the investors who provide capital for the firm. Accordingly, a company’s goal is to safeguard the investors’ interests. Here the word “capital” is limited to physical capital, but not human capital (Rampling, 2012; Teixeira, 2017). This argument was acceptable and suitable in the early era of large-scale industrial machinery-type operations, but is not appropriate and outdated in the current era of the knowledge economy (Rampling, 2012). The existence and development of the organisation are increasingly affected not only by the competence of managers but also by the advanced technological skills of the workers; technology and other human capital contributions to the enterprise are far more impactful than the physical capital (Teixeira, 2017).

Charron (2007) states that stakeholder engagement are practices that the organisation undertakes to involve stakeholders positively in organisational activities. According to Phillips (1997) and Rawlins (2006), the involvement of stakeholders in a mutually benefiting scheme marks a person or group as a stakeholder and merits them additional consideration over and above that due to other individuals. In ideal terms, stakeholder engagement would take the Rawlsian form of a ‘mutually beneficial and just scheme of cooperation’ (Charron, 2007; Phillips, 1997; Rawlins, 2006). Companies need to remain relevant if they are to survive in a challenging business environment, and to be relevant requires regularly interacting with important stakeholder groups. A robust stakeholder engagement model is fundamental for companies to be able to understand and respond to legitimate stakeholder concerns (Rawlins, 2006). Charron (2007) asserts that such a view depicts stakeholder engagement as an excellent partnership of equals. However, it is likely that the organisation and its stakeholders are not of equal status and determining the terms of any cooperation are by a more powerful party (Rawlins, 2006).

Stakeholder theory owes its intellectual development to Freeman’s (1984) seminal work entitled, *Strategic Management: A Stakeholder Approach*. Until that time, management theorists were more or less in a constant struggle to establish the duties that corporations

had, if any, to other groups besides shareholders and perhaps employees, suppliers and customers or groups whose relationship to the corporation was primarily non-economic.

Moreover, a search for a suitable justification for recognising such interests was still in development. It was not until Freeman's (1984) book that a general theory of the firm which included defining the concept of a stakeholder, providing an explication of the kinds of responsibilities that corporations had to stakeholders, and setting forth a suitable justification for such duties in managerial circles was widely accepted. Many articles and books use stakeholder theory as the central model of the firm (Donaldson & Preston, 1995).

This argument for firm survival on the basis that firms have responsibilities to stakeholders for moral reasons justifies stakeholder theory. In this regard, stakeholder theory describes the firm as a nexus of cooperative and competitive interests possessing intrinsic value. It holds that individuals or groups with legitimate interests in the ongoing activities of the firm do so to obtain benefits (economic or otherwise) and that there is no *prima facie* priority of one set of interests over another. An implicit social contract between society and corporations which views the right to operate as an economic institution, as contingent upon upholding legitimacy in a pluralistic nation-state society, also justifies stakeholder theory (Donaldson, 1982). It has also been justified based on a corporation's social power or its ability to act in ways similar to individuals, thereby making it a moral agent and having the responsibilities that accompany this status (Davis, 1975). In all cases, the stakeholder theory of the firm establishes economic relationships within a general context of 'moral' management.

3.3 Summary

This chapter discussed what a theoretical framework entails as concerns this thesis. It presented diagrammatically 12 different theories that have been used in the literature to examine different issues related to corporate governance. Then the theoretical framework underpinning this study was developed in the light of these 12 theories. Several theories have evolved to explain and analyse corporate governance from different perspectives. Two theories, agency and stakeholder theories, are considered adequate in capturing the theoretical base of this study. Several scholars agreed that there is an alignment between agency and stakeholder theories, and the two have been used together in management studies. The chapter identified the literature which argued

that combining theories is best in describing the efficiency and effectiveness of good corporate governance practices. It further made some comparison of the two theories underpinning this study. The next chapter reviews empirical studies on all the variables examined in this study and after that formulates the hypotheses investigated in the study.

CHAPTER FOUR: LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

4.1 Introduction

The previous chapters identified that the audit committee is one of the critical mechanisms in corporate governance. A competent, committed, and independent audit committee is one of the most reliable guardians of the public interest (Beasley, Carcello, Hermanson, & Neal, 2009; Levitt, 2000). The audit committee, a board's sub-committee, aims to guarantee the reliability of the accounting information provided by the management. The aim of this chapter is twofold. First, this chapter reviews the literature on the different aspects and roles of the audit committee, its attributes, and considers RAM and its various types. The second aim is to develop the study's hypotheses. Section 4.2 reviews the definitions of the audit committee, while section 4.3 discusses the role of the audit committee and the integrity of the financial statements. The discussion on the advantages and disadvantages of audit committees is in this section. Section 4.4 covers audit committee effectiveness, and section 4.5 evaluates the literature on audit committee attributes and RAM. Section 4.6 outlines the Nigerian studies that investigated the effectiveness of audit committee and RAM. Finally, section 4.7 summarises the chapter.

4.2 Literature review-audit committee

4.2.1 The audit committee - definitions

This review examines various definitions of the audit committee, traces the history of the audit committee, and establishes the reasons for the adoption of audit committee in the Nigeria. It analyses the literature on audit committee independence, composition/structure, the audit committee process, empirical studies on other audit committee attributes and lastly, considers literature on the audit committee's effectiveness.

The role of the audit committee is essential to stakeholders as transparent and quality financial reporting might improve market performance (Rainsbury, Bradbury, & Cahan, 2008). Over time, the role of the audit committee has kept evolving and has continuously been re-construed from a mechanism of voluntary monitoring employed in high agency cost situations to that which improves the quality of information flows to shareholders and other stakeholders as well (Zábojníková, 2016). Braiotta Jr, Gazzaway, Colson, and Ramamoorti (2010) view it as a necessary component of the

oversight function in view of increased public and regulatory interest. The current responsibilities of the audit committee are overseeing the accounting, audit and financial reporting processes of the company (Section 2. SOX (2002). The expectation is that a suitably qualified and committed independent audit committee acts as a reliable guardian of public trust and interest (Abbott *et al.*, 2003; Marx, 2008; PwC, 2011).

The increasing significance of audit committees is observable in the UK (Reid, 2015; Turley & Zaman, 2007). The UK Corporate Governance Code contains a requirement, which became active from 2013, for audit committee reports to present a description of significant issues considered by the audit committee concerning the audited financial reports in Section C.3(8) UK Code (2014). The audit committees' role in Europe was also affected by the mandatory adoption of International Financial Reporting Standards (IFRS) for the group accounts of all EU-listed companies from 2005. Since the Cadbury Report of 1992, which focused on the financial aspects of corporate governance, and other corporate governance reports, there has been a significant rise in the voluntary adoption of audit committees in the UK (Turley & Zaman, 2007).

In Nigeria, the role of the audit committee has increased, especially concerning their oversight responsibilities as detailed in the SEC code. There were additional responsibilities for the audit committee in the SEC (2011) code than in its predecessor. Studies recently focused more on the need for the audit committee to be impactful and effective in Nigeria. In Chapter Two, concerns for the establishment and the need (for the audit committee) to be active as a reliable corporate governance mechanism was observable in all the codes reviewed. All the codes have dedicated provisions or recommendations on improving the audit committee governance roles (Table 2.2).

Scholars have defined the audit committee differently and it, therefore, becomes necessary to review these definitions. The audit committee is the existence of a sub-committee of the corporate board comprised mostly of non-executive or independent directors with the power for overseeing auditing activities (Al-Baidhani, 2016; Birkett, 1986; Cadbury Committee Code, 1992; Collier, 1993; Okpala, 2012). Following developments in the global corporate environments, specifically, the numerous corporate collapses on the turn of the millennium (2001-2008), there has been increased requirements for the audit committee to be comprised only of independent non-executive directors. Section C.3.1, Combined Code (2003:16), provides that:

“.....the board should establish an audit committee of at least three, or in the case of smaller companies, two members, who should all be independent non-executive directors. The board should satisfy itself that at least one member of the audit committee has recent and relevant financial experience.”

S. 205(a) SOX (2002) defines the audit committee as a committee established by and amongst the corporate board to oversee the accounting and financial reporting processes and audits of the financial statements of the firm.

Rezaee (2008) defines the audit committee in the context of its expected responsibilities and functions. Rezaee (2008) views an audit committee as composed of independent, outside directors encumbered with a supervisory responsibility of guaranteeing dependable corporate governance, a process of quality financial reporting, effective internal control structure, a reliable audit function, and an informative whistleblowing complaint process and a suitable code of business ethics to create long-term shareholder value while safeguarding the interests of other stakeholders. This definition of the audit committee as Rezaee (2008) puts it is quite comprehensive and inclusive. It supports the choice of agency and stakeholder theories as a theoretical foundation for this study because it emphasises the expected responsibilities of the committee not only in the context of the shareholders but also in the context of a bigger picture that includes all other stakeholders.

An audit committee should also arrange for the internal audit and facilitate the conduct of an external audit (Okpala, 2012). The audit committee enhances the ability of the board to fulfil its legal responsibilities and ensure the objectivity and credibility of the financial reports (Hossain, 2005). The establishment of the audit committee within the corporate board by companies is to become an active participant in overseeing the company's accounting and financial reporting process and practices (Whittington & Pany, 2015). The committee acts as a communication link between management, auditors and the board of directors (Hossain, 2005; Okpala, 2012).

The recommendation for forming an audit committee of the board of directors first came in 1939 from New York Stock Exchange (NYSE) (Al-Baidhani, 2016; Arun, 2019), and in 1972, the SEC of the US recommended the publicly held companies to establish audit committees. Islam *et al.* (2010) observed that major corporate collapses around the globe had shown weaknesses in corporate governance systems even in the

economically developed countries. Removing these weaknesses requires appropriate reform, and already a paradigm shift occurred in the corporate governance practices in different countries where the audit committee has been addressed and accepted as a vital force (Islam *et al.*, 2010). Consequently, there is a redefinition of the expectations of the corporate audit committee's responsibility and effectiveness. Initially, audit committees and the board of directors were responsible for overseeing the selection of the independent auditor, financial reporting process, and the receipt of audit reports and acting on the report. However, the responsibilities of the audit committees intensified with the release of two regulatory reforms impacting corporate governance: (1) the *Report and Recommendations on Improving the Effectiveness of Corporate Audit Committees* (BRC, 1999); and (2) the *Corporate and Criminal Fraud Accountability Act*, also known as the Sarbanes-Oxley Act (SOX, 2002).

4.2.2 The role of the audit committee and integrity of financial statements

The audit committee, as stated in S. 350 (4) of CAMA (2004) is an operating committee of the board of directors entrusted with oversight responsibility of financial reporting and disclosure. The committee members are from the board of directors with a chairperson selected from among them.

In the US, as observed by Okpala (2012), the role of audit committees continues to evolve based on the SOX (2002), and it involves overseeing the financial reporting process, oversight of regulatory compliance and risk management activities, overseeing appointment, performance and independence of external auditors, oversight of ethical conducts and whistleblower hotlines, monitoring choice of accounting policies and principles, oversight of the internal audit functions and engaging with the management on the policies and practices of risk management.

In Nigeria, in response to the changing corporate environment, corporate boards are now placing increasing reliance on the audit committee to oversee reporting and internal control (Akinsulire, 2011). In S. 350 (3) (CAMA, 2004), the auditor in addition to reporting made under S. 350 (1), shall report to the audit committee established by the public company. In S. 350 (4) (CAMA, 2004), the composition of the audit committee shall consist of an equal number of independent directors and representatives of shareholders to a maximum of six members, and they shall be subject to re-election

annually. Its responsibilities include an examination of the auditors' report and to make recommendations thereon to the annual general meeting as it deems fit.

According to S.359 (6) (CAMA, 2004), subject to such added responsibility and power that the company's articles of association may impose, the functions and objectives of the audit committee shall include (a) ascertaining whether the reporting and accounting policies of the company are following legal specifications and agreed ethical conducts, (b) reviewing the scope of audit planning requirements, (c) reviewing the findings on management matters in agreement with the external auditors and departmental responses attached, (d) keeping under check the effectiveness of the firm's internal control system and accounting policies, (e) making recommendations to the board concerning appointment, removal and remuneration of the external auditors, and (f) authorising the internal auditor to probe any activities of the company which may be of interest to the committee.

The audit committees peruse and interrogate all essential matters affecting financial reporting all through the year (Okpala, 2012; PwC, 2011). Okpala (2012) argues that the benefits of an audit committee include (i) assisting in initiating and strengthening the objectivity and independence of the directors, and the internal and external auditors alike, (ii) enhancing communication, and enlarging contact, confidence and in-depth understanding between corporate boards, management and the external and internal auditors, (iii) increased external and internal auditors' diligence since their activities are under severe scrutiny, (iv) assistance in creating a climate of discipline and control which reduces fraudulent opportunities, (v) guarantees an efficient and effective external audit engagements, and (vi) strengthens the credibility and objectivity of financial reporting process.

Al-Baidhani (2016) and Arun (2019) both observed that for the proper discharge of their duties, all the audit committee members should be financially literate and possess an understanding of the industry operations to which the firm belongs. At least one member should be a member of a recognised professional accounting body. A credible and reliable financial reporting which is the basis for good corporate governance devoid of RAM practices is attainable when the audit committee carries out their responsibilities properly and dutifully.

4.2.3 Audit committee effectiveness

With the high-profile financial fraud cases, academics and industry require a competent audit committee to provide sound monitoring (Chan & Li, 2008). The audit committee's effectiveness is crucial for sound corporate governance practices in the organisation. Musoke, Senyonjo, and Kyeyune (2017) and an earlier study by Vicknair, Hickman, and Carnes (1993) reported that lack of sufficient audit committee practices is a factor responsible for the severe financial problems of companies. However, employing several models to understand effectiveness, which is an elusive concept, is useful, but none is appropriate in all circumstances (Cameron, 1981; Musoke *et al.*, 2017). Spira (2002) claimed that within the literature, there is no discussion of the meaning of effectiveness, resources, or independence. Lee and Stone (2003), in explaining the purpose of their study, noted that it is impossible to observe actual effectiveness.

Many authors who have written on audit committees' effectiveness have used the word 'effectiveness' to mean the carrying out or fulfilling its specific oversight functions, responsibilities or duties (Kalbers & Fogarty, 1993; Millstein, 1999; Musoke *et al.*, 2017; Raghunandan *et al.*, 2001; Rittenberg & Nair, 1993; Smith, 2003; Spira, 2002). Other studies have used 'discharging their oversight responsibilities' for the definition of audit committees' effectiveness (Braiotta Jr *et al.*, 2010; Lee & Stone, 2003; Pomeranz, 1997; Turley & Zaman, 2007; Verschoor, 1989). DeZoort *et al.* (2002) defined effectiveness as the collective ability of the audit committee to meet its oversight objectives. Baugher (1981) noted that "the investigator should determine which type of effectiveness is of the greatest concern to the constituency or constituencies to which he or she must report". Emphasising audit committee roles, DeZoort *et al.* (2002) further defined 'effective audit committee' as a committee which has qualified members with the capacity and resources through its oversight functions to protect shareholders' stakes by guaranteeing quality financial reporting, internal controls, and risk management (Awwad, Nik-Mohd-Rashid, & Abdullah, 2019). Zain and Subramaniam (2007) submitted that a strong and well-resourced internal control function is a necessary criterion for a competent audit committee since they (audit committee members) review the work of the internal auditor to develop their understanding of the controls' effectiveness (Spira, 1999). In respect of effective functioning of the audit committee, Zain and Subramaniam (2007) emphasised the need for a good relationship between the

external auditors and audit committee through private meetings and informal communication.

The audit committee represents a standing committee of the board of directors which is responsible for dealing with audit-related concerns and should assist in resolving disputes between the auditor and management. Pomeranz (1997) argued that the effectiveness of audit committees is not observable by the mere comparison of companies with audit committees to companies that do not have them. Rainsbury *et al.* (2008) found membership of the audit committee as one of the critical factors to improve audit committee effectiveness. A competent audit committee should have a higher likelihood of detecting problems than an incompetent one (Choi *et al.*, 2004). Finally, the audit committee-related disclosure and reporting is a necessary element for assessing the effectiveness of the audit committee functions (Lee, Mande, & Ortman, 2004; Ng & Tan, 2003; Spira, 1999). Relevant disclosures include a written charter or terms of reference specifying the audit committee responsibilities that have been endorsed or approved by the board of directors, and audit committee reports demonstrating how an audit committee has fulfilled the described responsibilities during the year. The effectiveness of the audit committee depends, to a large extent, upon their diligence or activities, such as the frequency, duration, and content of audit committee meetings (Abbott *et al.*, 2004; Beasley & Salterio, 2001; Collier & Gregory, 1996; Ng & Tan, 2003; Teoh & Lim, 1996). An audit committee's effectiveness depends mainly on how successfully they can carry out their roles and responsibilities no matter how they are composed. However, literature documents that there is a causal relationship between audit committee attributes and effectiveness (Mohiuddin & Karbhari, 2010).

4.2.4 Audit committee monitoring role

The audit committee is one of the essential internal governance control mechanisms in the company. It plays a vital role in overseeing financial reporting to ensure quality financial reporting and companies' accountability (Zhang, Zhou, & Zhou, 2007). However, the quality of the audit committee depends on its members' effectiveness. As observed by Menon and Williams (1994), the presence of an audit committee does not guarantee effective monitoring. Committee members should also be proactive and independent.

The relationship between the audit committee and earnings manipulation is comprehensible through agency theory. The theory assumes that a high monitoring quality is required where a high level of agency problem prevails (Beaudoin, 2008). According to the Cadbury Committee Code (1992) and Klein (2002a), the audit committee oversees the company's financial reporting process and meets regularly with the internal auditor, external auditors, and financial managers to reassess the financial statements. It also appraises the audit process and internal accounting controls. Krishnamoorthy, Wright, and Cohen (2002) observed that the audit committee assists the board in implementing their duties in monitoring the financial reporting process and ensuring a high audit quality. Lin and Hwang (2010) indicate that a good corporate governance structure assists the management of the company to properly utilise the company's resources in the best interest of shareholders. They add that the board of directors and its committees are predominantly responsible for overseeing management's activities. Kang and Kim (2012) provided empirical evidence that the presence of an audit committee provides an internal control mechanism for monitoring management's activities. Their study found a significant negative relationship between real activity-based earnings manipulation and the presence of an audit committee. It is the only study that examines the effect of the formation of an audit committee on RAM practices. The next section, therefore, reviews the literature on the audit committee attributes, relevant to this study.

4.2.5 Audit committee attributes

The audit committee is one of the committees of the corporate board that it empowers to carry out specific duties (Rahahleh & Hamzah, 2019). The role of the audit committee is directly related to overseeing the financial reporting and auditing activities (Dobija, 2015; Rahahleh & Hamzah, 2019). Consequently, given this role of the audit committee, it is expected to contribute in decreasing the prevalence of RAM practices, especially among listed companies in Nigeria (Eyenubo, Mohammed, & Ali, 2017; Rahahleh & Hamzah, 2019).

The results of previous studies show that there is a connection between the attributes of the audit committee and indicators of quality financial reporting (Abbott, Parker, Peters, & Raghunandan, 2001). The audit committee is an essential mechanism in supporting the board in enhancing the reliability of the financial reporting process (BRC, 1999; SOX, 2002; Treadway Commission, 1987). Quality financial reporting is achievable

when audit committees become effectual by satisfying their various obligations which include maintaining and reconsidering the adequacy of internal controls, making remarks on and endorsing accounting policies, and verifying the accurate and fair status of financial statements (Deloitte, 2018). In recent years, the audit committee's role has expanded. It now encompasses the oversight of managing enterprise risk and other specific risks, including increased regulatory involvement, bribery and corrupt practices, and cybersecurity (Ernst & Young, 2013). The audit committee also plays a prominent function in ensuring that the external auditors enhance the quality of financial reporting, are accountable for the external auditors' appointment and remuneration, and the scope and appraisal of the audit engagement (Dhaliwal, Naiker, & Navissi, 2010).

Studies indicate that the influence of the audit committee on earnings manipulation is multi-dimensional, affected by audit committee attributes such as independence (Hassan & Ibrahim, 2014; Klein, 2002a), financial literacy (Agrawal & Chadha, 2005; Madawaki & Amran, 2013), meeting frequency (Aanu *et al.*, 2014; Abbott *et al.*, 2004), female directorship (Bernardi & Threadgill, 2011; Fodio & Oba, 2012), multiple directorship (Emmanuel, Ayorinde, & Babajide, 2014; Sharma & Iselin, 2006), and size (Anderson, Mansi, & Reeb, 2004; Modum, Ugwoke, & Onyeonu, 2013). However, there is not much empirical evidence on the relationship between the audit committee attributes and RAM practices (Inaam *et al.*, 2012).

As a result of the reports and proposals of regulatory agencies and corporate governance codes (BRC, 1999; SEC, 2011; SOX, 2002; Treadway Commission, 1987; UK Code, 2010), in line with international best practices, this study investigates attributes of audit committee which includes: independence, financial expertise, frequency of meeting, female directorship, multiple directorships, and size. The discussion on the prior studies on these six attributes follows.

4.2.5.1 Audit committee independence (ACIND)

Evidence reveals a direct association between the integrity of financial reporting and audit committee independence (Bédard, Chtourou, & Courteau, 2004; Klein, 2002a). The study of ACIND is extensive in prior research (Bradbury, Mak, & Tan, 2006; Klein, 2002b).

Sawyer, Dittenhofer, and Scheiner (2003) indicate that "audit committees composed of directors from within the organisation may be affected by their direct involvement with the matters reported". Therefore, to ensure the independence of audit committees, the American Institute of Certified Public Accountants (AICPA) (1978) and Braiotta Jr (2007) stipulated that an audit committee should be a standing committee of the board composed mainly of non-officer directors or outside directors, that is, non-executive directors.

The BRC (1999) states that "independence is critical to ensuring that the board fulfils its objective and oversight role and holds management accountable to shareholders". To achieve this, Ferreira (2008) reiterates the statement made by SEC Chairman, William H. Donaldson, that an essential element of strengthening corporate governance is not just a vibrant, proactive board of directors but also a board that is independent of management in both appearance and reality. This is equally applicable to audit committee members, who form a subcommittee of the board.

Terrell (2001) suggests the introduction of another test of independence. It is a test based on the "appearance" from a reasonable investor's perspective. In the opinion of O'Kelly (2003), this implies that members of the audit committee should be free to act upon what they see and the information available to them, and then render a professional judgement. Independence permits committee members to be objective in making decisions. It also suggests the appraisal of overall corporate performance and a willingness to challenge management's decisions from a completely free and objective point of view without management's undue influence (Burke, Guy, & Tatum, 2008; Ferreira, 2008; Gregory, 2003).

4.2.5.2 Audit committee financial literacy (ACFLT)

Financial literacy is a vital attribute of the audit committee. For a committee to properly supervise the financial reporting and control processes of a firm, it should possess a reasonable level of financial literacy. The audit committee needs to ensure that executives are accountable, and this requires the members to be well-grounded in accounting knowledge and to have a thorough analysis of corporate reporting thereby improving the quality of financial reporting and regulatory requirements compliance (Agrawal & Chadha, 2005).

Abbott *et al.* (2004), Abbott *et al.* (2003), and Farber (2005) document that the financial expertise of audit committee members is inversely related to incidences of financial fraud, cases of earnings restatements, and higher audit services demand. Dhaliwal *et al.* (2010) showed a strong direct association between the quality of financial reporting (proxied by accruals quality) and audit committee accounting financial expertise.

In Nigeria, most of the sectoral codes have a recommendation on the need for financially literate member(s) in the composition of the audit committee. As shown in Table 2.2, the SEC (2011) code requires members of the audit committee to have basic financial literacy and should be able to read financial statements. At least one board member of the committee and one member of the shareholders' association should understand accounting or financial management. The NCC (2016) code is strictest among all the codes on this recommendation. It recommends that all members of the audit committee must be members of a recognised body of professional accountants in Nigeria. The NAICOM (2009) code recommends that at least two members should have the requisite knowledge of accounting, financial analysis, and financial reporting. The NCCG (2018), which is the national code, recommends that all members of the committee should be financially literate and should be able to read and understand financial statements; at least one member of the committee should be a financial expert, knowing accounting and financial management.

The BRC (1999) raised the issue of background and experience of the audit committee that can affect their effectiveness. The BRC (1999) suggested that audit committee members should be financially literate. In Malaysia, members of audit committees are to have enough understanding of financial reporting issues (FCCG, 2001). The Listing Requirements of Bursa Malaysia recommend that audit committees should have at least one member registered with the local accounting professional body, the Malaysian Institute of Accountants (MIA), or at least three years' experience after passing a professional examination and must be a member of one of the specified accounting associations (Mohamad & Sori, 2001).

Notwithstanding the above, Carcello and Neal (2003), DeFond, Hann, and Hu (2005), Lee *et al.* (2004), and Anderson *et al.* (2004) failed to record any significant advantages on financial reporting as a result of having audit committee members with financial expertise.

4.2.5.3 Audit committee frequency of meetings (ACMTG)

Earlier studies attached importance to audit committee meeting frequency as an essential attribute (Anderson *et al.*, 2004; Spira, 1999). The audit committee sustains a smooth consultation between the board, internal and external auditors alike. The frequency of meetings indicates diligence in resolving any immediate issues that might arise in the audit engagements, including the accounting internal systems and controls. It offers a better oversight environment, which may assist in detecting financial statements errors (Habbash, 2010). Meeting frequently may indirectly give a signal on the diligence of the committee and, it is, in most cases, used as a proxy for diligence (DeZoort *et al.*, 2002).

Zhang *et al.* (2007) found a direct correlation between the frequency of meeting and quality of financial reporting. However, empirically there is evidence indicating that frequent audit committee meetings can achieve quality financial reporting. Inaam *et al.* (2012), on audit committee attributes and manipulation of real activities in Tunisia, found that the audit committee can detect overproduction and manipulations of sales when they meet more often.

The Nigerian SEC Code (2011) advocates that the audit committee should meet not less than three times in a year (Aanu *et al.*, 2014). It further recommends separate and periodic meeting with the management, internal auditors, and external auditors. Table 2.2 revealed that it is only the NCC (2016) code that recommends meeting at least twice a year, although it also recommends meeting with internal and external auditors at least once in a year. The NCCG (2018) recommends quarterly meetings and that the committee should meet once in a year with the head of the internal audit and the external auditors without the management present.

There is a high probability that the audit committee frequency of meeting would minimise financial fraud and enhance the performance of its responsibilities as expected (Stewart & Munro, 2007). Chen and Zhou (2007) observed that enhancing and upholding good corporate governance in companies can significantly improve through frequent meetings of the audit committee. Meaningful and substantive meetings are consistent with an agency perspective (Beasley *et al.*, 2009). In studying the collapse of Arthur Andersen, an audit firm, Chen and Zhou (2007) noted that the number of audit committee meetings is an essential mechanism of corporate governance. Ruzaidah and

Takiah (2004) also find that quality financial reporting is synonymous with meeting frequency. The more frequently the audit committee meets, the better the quality of financial reporting since prompt monitoring of management activities can be achieved and made effective through meetings (Ruzaidah & Takiah, 2004). However, Visvanathan (2008) found a negative association between the number of audit committee meetings and the occurrence of REM through the reduction of discretionary expenses and not through sales manipulation or overproduction.

In contrast, Bédard *et al.* (2004) and Lin, Li, and Yang (2006) did not find any direct relationship between the quality of financial reporting and audit committee frequency of meetings. Similarly, Garven (2015) examined the relationship between frequency of audit committee meetings and the occurrence of REM. They did not find convincing evidence that companies involved in REM have fewer audit committee meetings.

4.2.5.4 Audit committee multiple directorships (ACMDR)

Regulatory concerns notwithstanding multiple directorships, divergent opinions exist on the impact of multiple directorships on the efficacy of the audit committee (Core, Holthausen, & Larcker, 1999; Emmanuel *et al.*, 2014). Multiple directorships can have both a direct and indirect impact on effective monitoring. An increased directorship affords directors a better understanding of their oversight responsibilities, thereby boosting their supervising abilities. However, since quality time commitment is needed for a director to examine the process of financial reporting adequately, several directorships can impair the effective monitoring of executives. When additional directorships surpass a set limit, its negative consequences on supervision efficacy could erode its probable positive influence (Emmanuel *et al.*, 2014). Core *et al.* (1999) are of the view that three additional directorships are a significant limit. Directors sitting on three or more boards are overstretching themselves by being too busy and are therefore overcommitted. This argument is indicative of the desire to limit the number of multiple directorships to about three. Shivdasani (1993) and Song and Windram (2004) share this same view, and they argue that audit committee members who hold multiple directorships may experience time constraints and reduced commitment in performing effectively.

In the view of Jubb (2000), commitment and perseverance are necessary for the monitoring of management to be active and efficient. However, it is rational to assume

that as directorships increase, the quality time accessible for directors to carry out their oversight responsibilities decreases. It can negatively infringe on the capacity of the directors to discover irregularities in the processing and preparation of the financial report. An additional directorship heightens the possibilities of fraudulent practices being reported in the financial statements (Davidson, Stenning, & Wai, 1984).

Ferris, Jagannathan, and Pritchard (2003) find no relationship between multiple directorships and firm performance and conclude that busy directors do not neglect their responsibilities while serving on multiple boards. Coles and Hoi (2003), Harris and Shimizu (2004) and Masulis and Mobbs (2011) revealed that directors on the board of companies with excellent performance are more likely to attract multiple board appointments, suggesting a positive association between additional directorships and perceived director's quality. It also shows that multiple directorships are directly related to effective governance.

Ruzaidah and Takiah (2004) suggest that the experience gained by the audit committee members having multiple directorships is evident. They suggest that being a director in many companies would boost the expertise of committee members, thereby giving them the impetus to properly supervise management activities to deliver a high standard financial report. There is evidence that audit committee members with multiple directorships have a significant direct association with corporate social reporting among Malaysian corporations (Haniffa & Cooke, 2005) and firm performance (Haniffa & Hudaib, 2006).

In Nigeria, CAMA (2004) was silent on multiple directorships. The SEC (2011) code as shown in Table 2.2 is not specific when it recommends that a director of a company may hold additional directorships; however, such additional directorship appointments should not interfere with the director's ability to discharge his responsibilities to each board effectively. It, however, provided four clauses that the board and shareholders must consider in assessing the suitability of a nominee for a directorship appointment. The NCC (2016) code is more specific when it recommended that no individual shall serve simultaneously as a director of more than three companies in the communication industry. It stressed that it could interfere with the ability of an individual to discharge his responsibilities as expected. The NCCG (2018) is not too different from the SEC (2011) code on this, and there is also no fixed limit to the additional directorship seats a

director may occupy. It recommends that directors should not be members of boards of competing companies. It is evident from all the codes' recommendations that multiple directorships are allowed to the extent that they will not affect the performance of the concerned director's oversight function in any way.

4.2.5.5 Audit committee female director (ACFDR)

Gender balance on the supervisory board has become a prominent issue in Europe. The Finnish corporate governance regulation recommends publicly listed companies to have at least a woman director (Virtanen, 2013). Several European countries have already instituted quotas, including Belgium, France, Italy, the Netherlands, and Spain (Govotsos, 2017). The Securities and Exchange Board of India (SEBI) in its circular dated April 17, 2014, on the Composition of Board stated that the board of directors of a company should have at least one female director. A European Commission Consultation, focusing on specifically on the gender imbalance of listed companies' board, noted the limited progress on increasing the number of women on boards and recommended possible action at EU level, including legislation. (European Union 2012).

Gender diversity of corporate boards is a significant aspect of corporate governance. It is defined as the presence of women directors on the board of directors of corporations (Şener & Karaye, 2014). Şener & Karaye (2014) believe that women directors consider a spectrum of stakeholders in their decision making and that they have an understanding of consumer behaviour and needs. In decision-making, female directors are more risk-averse than their counterparts, and they also shun overconfidence (Barber & Odean, 2001; Byrnes, Miller, & Schafer, 1999). According to Croson and Buchan (1999) and Şener and Karaye (2014), women are more collaborative and trustworthy than men, and this can improve board dynamics.

Men and women have different perceptions, and female directors can bring new knowledge, conflicting views, more alternative solutions, and different perspectives to problems (Dang, Nguyen, & Vo, 2013; Şener & Karaye, 2014). Therefore, women possess unique traits that can positively add to the growth and development of the corporation and significantly shape the strategic direction of a firm (Lincoln & Adedoyin, 2012).

In Nigeria, gender equality started gaining increased attention and discussion after the United Nations declaration of the International Women's Year in 1975 (Fakeye, George, & Owoyemi, 2012). Şener and Karaye (2014) note that until recently, Nigerian corporate boards have been a 'boys club', meaning, a homogenous board. Actions are in place to reduce or eliminate the 'glass ceiling' in the workplace in Nigeria, part of which includes the equality law, which is a constitutional provision in S.17(2)(a) Constitution of FGN (1999). It states that a "citizen shall have equality of rights, obligations and opportunities before the law"; by implication, this includes gender equality. The establishment of the National Gender Policy in 2006 and the Strategic Implementation Framework in 2008 is evidence for the gender equality implication of the Constitution. The policy calls for at least 35% female representation in politics in both appointment and elective positions (Fakeye *et al.*, 2012).

There are efforts from the regulatory authorities to ameliorate gender imbalance in listed companies through the regulatory apparatus and provisions made in the codes of corporate governance. The Central Bank of Nigeria imposes a mandatory quota target through the Bankers' Committee (IFC, 2019; Şener & Karaye, 2014); the target is to raise women representation in corporate boards to 30% by 2014 as well as increasing female representation to 40% in top management positions. It has influenced the female board representation in Nigeria, especially in the banking sector. In 2012, from the statistics of the CBN, it reported that female representation on boards was 15% and in the top management, it was 27% (Lincoln & Adedoyin, 2012). The SEC (2011) code recommends that publicly listed companies should consider gender composition when selecting board members, and the NCCG (2018) encourages the board to set diversity goals across a variety of attributes including gender and to be mindful of them when filling board vacancies. However, the SEC (2011) and NCCG (2018) codes do not prescribe gender quotas. In 2012, Women in Management and Business (WIMBIZ), a non-governmental organisation established in 2002, conducted a survey to establish the level of participation of women in corporate governance in 190 companies listed on the NSE. The summary results of the survey are in Table 4.1. The survey revealed that only one company out of the 190 NSE companies surveyed had more than 50% female board membership; companies without female executive directors (EDs) was 154 which was at a significantly high rate of 81.1%; the number of female chairpersons was low at just 2.6%. In 2016, Deloitte Corporate Services Limited (DCSL) conducted a similar survey

which indicated that during the years 2013–2015, women accounted for only 14% of the 915 directors on the boards of the 132 companies listed on the NSE.

Table 4.1 The level of participation of women in corporate governance

Descriptions	Frequency	Percentage (%)
Total number of directors	1,599	100.0
Total number of female directors	168	10.5
Total number of executive directors (ED)	400	100.0
Total number of female executive directors (ED)	44	11.0
Total number of board chairperson	190	100.0
Total number of female board chairperson	5	2.6
Total number of CEO	190	100.0
Total number of female CEO	12	6.3

Source: WIMBIZ (2012).

The banking sector in Nigeria has the highest representation of women on boards, with the proportion of women on boards rising to 25% in 2015. It is still below the targeted quota under the Sustainable Banking Principles that the sector desired to achieve in 2014. Ogwu (2018), in a newspaper article, corroborated by Sotola (2019), reports that the proportion of female board members in banks is 22% (this is a drop from 2015 statistics) while appointments to the rank of board chairpersons were recorded in three of the five top banks in the country, thus more effort is necessary in achieving the CBN target of 30%. As with almost every other business sector in Nigeria, the banking sector is male dominated. However, despite the proportional decrease between 2015 and 2018 statistics, it is still in the right direction as observed by Sotola (2019) when reporting on women on corporate boards in Africa.

The results of the DCLS (2017) are a testimony to the fact that the glass ceiling is beginning to crack, especially in the banking sector in Nigeria. In the global rankings, Nigeria ranked 133 out of 149 countries in the 2018 Global Gender Gap Index, in the female educational attainment sub-index, it ranked 140 out of 149, and in the political empowerment sub-index, it ranked 139 out of 149 (WEF, 2018). The rankings revealed that much improvement is necessary if the government of Nigeria is serious about addressing gender imbalance. WIMBIZ (2012) are of the view that progress in addressing gender imbalance has been slow because Nigeria is a male-dominant society, and this view is similar to that in Sotola (2019). As a result of this dominance and cultural influence, women have little representation at managerial and board levels. In

the opinion of Lincoln and Adedoyin (2012) and Sotola (2019), despite the Nigerian government's open commitment to gender equality, the practical situation is characterised by sexual stereotyping of social roles, discriminatory traditions and cultural influences.

Huang, Krivkovich, Starikova, Yee, and Zanoschi (2019) record that the number of women continue to be poorly represented at every level of governance, and to change this tradition, corporate organisations must focus on the real problem. Glass and Cook (2016) observed that it is not all about the “glass ceiling” that prevents women from reaching senior leadership positions, as women are faced with the significant impediments much earlier in the process when rising to managerial positions (Glass & Cook, 2016). Mending the “broken rung” is essential to achieving parity and there will be more women to promote and hire at each subsequent level as more women become managers (Huang *et al.*, 2019). The Nigerian attitude towards women is a traditional African attitude which saps women's initiatives (Lincoln & Adedoyin, 2012). Males dominate Nigerian organisations just like in other economies; few females advance to significant positions which is tough for them, and when they eventually attain the positions of directors and senior managers, they face intolerance, marginalisation and name-calling, being regarded as female activists for the sake of feminine regulations, and not for their knowledge, skills, and ability to significantly impact the prosperity of the organisations (Einarsdottir, Christiansen, & Kristjansdottir, 2018; Fakeye *et al.*, 2012).

The Rwandan President, Paul Kagame's message, in his opening address to the Global Gender Summit in November 2019 at Kigali, focused on the widening of gender inequality in Africa and that closing the gender gap was urgent. He described gender equality as “real common-sense” (Moungar, 2019; Mpoke-Bigg, 2019). The president stated that the country realised right from the beginning that there is so much work to be done in this direction (Mpoke-Bigg, 2019). He revealed that the country invested much to ensure that women are at the centre of development, making it everyone's responsibility to ensure that the gender gap no longer exists. It is not a surprise that Rwanda is leading the world in gender representation in parliament as 61% of its parliamentarians are women. Also, half of all its ministerial positions are occupied by women as in Ethiopia (ANA, 2019; Moungar, 2019). In the 2018 Global Gender Gap

ranking, Rwanda leads all the African countries in the political empowerment sub-index. It ranked fourth out of 149; this is far ahead of the UK which ranked 11 out of 149. The closest African country to Rwanda in this ranking is South Africa which ranked 17th (WEF, 2018).

In November 2012, as reported by Ernst and Young (2013), the authority in Brussels approved a diluted form of corresponding proposed legislation by the European Commissioner, Redding. The initiative calls for a minimum of 40% of the "under-represented sex" inclusion on the non-executive boards of publicly listed European companies by 2020 (Ernst & Young, 2013). One audit committee chairperson in attendance submitted that, over the next decade, boardroom gender diversity will take the lead in the corporate agenda, and that Europe seems to be at the forefront on this issue. Another audit committee chairperson, as observed by Ernst and Young (2013), thought that the committee is so relevant to the governance of the company that it becomes impossible to tolerate a weak member. It is a big responsibility (much workload) which require people who are confident in their abilities and dare to challenge management. While another bluntly reiterated that recruitment will not be on merit any longer, and consideration must be on younger women. She concluded that gender takes precedence over competence (Ernst & Young, 2013).

In the opinion of Schubert (2006) and Watson and McNaughton (2007), women try not to incur losses and are less disposed to embrace risks. However, the desire to take risk is a management acumen in enhancing shareholders' worth. Gender diversities may be tolerated in risk avoidance from the perspective of corporate governance as female members may, for example, assist to properly view inherent biases in strategy formation and risk assessments (Watson & McNaughton, 2007). The conservatism and risk-aversion of females may also have implications for the integrity of the financial reporting process. Krishnan and Parsons (2008) support this view empirically when they document that earnings quality has a positive relationship with gender diversity in managerial positions.

Part of the primary duties of the board of directors is to monitor the top management (Jackling & Johl, 2009). Researchers have contended that women directors are more independent and more robust monitors than their male counterparts (Shin, Chang, Jeon,

& Kim, 2019). Women directors have fewer meeting attendance problems than men (Adams & Ferreira, 2009), they are more inquisitive (Terjesen, Sealy, & Singh, 2009), and they prepare for meetings better than men (Huse & Solberg, 2006). By asking questions and preparing well to the meetings, directors are less dependent on the reports and presentations made by the management, and can, therefore, fulfil their monitoring role more independently (Huse & Solberg, 2006; Terjesen *et al.*, 2009). Furthermore, the presence of women also affects the behaviour of male directors. For example, Huse and Solberg (2006) report that the efficient preparation by women also induced the men to prepare more efficiently, whereas Adams and Ferreira (2009) found that men had fewer attendance problems when there are more females on the board. The presence of women on the corporate board may impact on the overall monitoring capability and performance of the board. Another benefit of having women on corporate boards is that they bring different resources and external relationships (Terjesen *et al.*, 2009). A further benefit is that boards can enhance their performance by tapping into the talent pools of women (Adams & Ferreira, 2009).

According to Lämsä and Sintonen (2001), women leaders tend to be more democratic, consultative and people-oriented than men leaders. Schminke, Wells, Peyrefitte, and Sebra (2002) examined how different leadership styles affect individual and group ethical decisions. They find that more active leadership leads to greater conformity in ethical decisions. Sun, Liu, and Lan (2011) opined that female directors who are exceptionally strong in adopting an approach that is more acceptable and participative and can manage mutual relationships are capable of influencing the behaviour of an entire board and a company's management towards more ethical decision-making.

Although the benefits of having more gender-diverse boards may seem obvious, a few cautionary words are in order. The group behaviour literature suggests that while gender diverse groups have the potential to achieve better results, the outcome might be the opposite (Maznevski, 1994). Although not tested with a board of directors, gender diversity has adverse effects on group dynamics (Erhardt, Werbel, & Shrader, 2003). For example, Adams and Ferreira (2009) argue that the more dissimilar directors are, the more possible it is that directors may disagree and the more conflict there is on the board. In alignment with this view are the findings that a negative correlation exists between gender diversity and firm performance implying that an increase in gender diversity would result in a corresponding decrease in the firm's performance (Eklund,

Palmberg, & Wiberg, 2009; Palmberg, Eklund, & Wiberg, 2009; Smith, Smith, & Verner, 2006).

4.2.5.6 Audit committee size (ACSIZE)

Several studies have considered audit committee size as a means of adequate supervision and control of financial reporting. Dhaliwal *et al.* (2010) showed that the size of a committee is among the essential characteristics that contribute to the committee's governance strength. Li, Pike, and Haniffa (2008) also showed that the size of a committee could promote relevant and appropriate disclosures. Naimi, Nor, Rohami, and Wan-Hussin (2010) documented that it is more likely to uncover and resolve potential challenges in the financial reporting process with an extensive audit committee, mainly if the size is a basis of allocating resources to the committee.

Naiker and Sharma (2009), Lin *et al.* (2006) and Yang and Krishnan (2005) respectively found a negative relationship between the size of a committee and internal control deficiencies, and also with the financial restatement and abnormal accruals. Bédard and Gendron (2010) concluded in their literature review study on audit committee effectiveness and financial reporting strength that of the 23 analyses examined by them, six studies found a direct relationship between size and committee's effectiveness while five studies found a negative association, and the remaining 12 studies failed to find a significant association.

Some stock exchanges in their listing requirements recommend that the size of the audit committee of listed companies consist of three members (SOX, 2002). However, in Nigeria, S.359 CAMA (2004) specifies six as the maximum number of members without indicating the minimum size (comprising of an even number of shareholders' representatives and non-executive director). As shown in Table 2.2, the CBN (2014) code recommends that the audit committee shall consist of at least three non-executive directors to be headed by an independent director.

Abbott *et al.* (2004), Baxter (2007), Bédard *et al.* (2004), Garven (2015), Susanto and Pradipta (2016), and Xie, Davidson, and DaDalt (2003) failed to find a significant connection between the size of the audit committee and aggressive earnings manipulation and restatement occurrence. Abbott *et al.* (2004) examined, for the periods between 1991 and 1999, 41 companies that released false reports and 88 companies which restated their annual statements. The study reported that the size of an audit

committee has no substantial effect on the quality of financial reporting.

Conflicting results of studies that investigated the effect of committee size on governance quality provides inconclusiveness about the association between size and financial reporting quality (Stevens, 2011). The rewards of increasing committee membership must correspond with the additional cost of weaker coordination and communication, less participation, and poor decision making related to larger groups (Hackman, 1990; Steiner, 1972). However, Jensen (1993) stressed that the adverse effects of a committee size increase manifest only if the committee size exceeds around seven to eight constituents. Moreover, out of the 1,157 firm-year observations used by Jensen (1993), only three observations had an audit committee consisting of nine members. Anderson *et al.* (2004), are of the view that monitoring the process of financial reporting and the systems of internal control can easily be achieved by large boards since they have access to more resources and time. This implies that when membership increases, responsibilities are shared and reasonable time and resources are available to identify and mitigate dishonest practices while overseeing management activities

After discussing each of the main attributes of an audit committee investigated in this study, the next section presents the relevant literature which supports the need to conduct this study. It focuses on the RAM literature perspective of this chapter.

4.3 Real activities manipulations (RAM)

RAM refers to managers' behaviour to use real activities to affect reported earnings. Roychowdhury (2006) defines RAM as a deviation from the usual operating activities inspired by the manager's desire to mislead unsuspecting stakeholders to believe that attaining financial reporting targets becomes possible through the ordinary course of operations. The deviations do not necessarily contribute to firm value although it assists the manager in achieving the target.

Roychowdhury (2006) highlighted three techniques that companies may use to avoid reporting losses. First, increasing the unit produced to reduce the overhead costs per unit results in a reduction in the cost of goods sold and ultimately reported earnings are improved. Second, boosting sales volume by offering more discounts on sales prices or granting more accessible credit terms that result in reporting high earnings. Third, reducing discretionary expenses such as research and development or general and

administrative expenses that result in increasing earnings reported in the financial report.

In addition to these techniques, Bartov (1993) finds that managers employ timing of asset sales to enhance the earnings of the company through the gains from selling these assets when they realise that the targeted earnings may not materialise. Further, Herrmann, Inoue, and Thomas (2003) find that companies in Japan have manipulated earnings through selling marketable securities or fixed assets and using the gains (or losses) to adjust the actual operating income to meet forecasts. Furthermore, managers may use a stock repurchase as a RAM technique to adjust earnings per share (Bens, Nagar, & Wong, 2002; Burnett, Cripe, Martin, & McAllister, 2012; Hribar, Jenkins, & Johnson, 2006).

Researchers provide evidence that RAM affects the market as it is associated with the level of information asymmetry (Abad, Cutillas-Gomariz, Sánchez-Ballesta, & Yagüe, 2018). Further, RAM is a signal of worse financial performance in the future (Cohen & Zarowin, 2010; Cupertino *et al.*, 2016; Gunny, 2010; Moradi, Salehi, & Zamanirad, 2015; Tabassum, Kaleem, & Nazir, 2015). Other scholars confirmed that companies which attempt financial fraud engage in RAM practice before the fraud event (Nasir, Ali, Razzaque, & Ahmed, 2018; Perols & Lougee, 2011).

4.3.1 Overview of real activities manipulation (RAM)

Researchers have tested a wide range of topics on earnings management (Cohen & Zarowin, 2010; Cohen, Krishnamoorthy, & Wright, 2008; Dechow & Sloan, 1991; Graham *et al.*, 2005; Krishnan & Visvanathan, 2008; Roychowdhury, 2006; Zang, 2012). Amongst these topics are: different techniques or types of earnings management; managers' incentives to engage in earning manipulations; the reasons managers prefer a particular earnings management technique; how firm's choices among different earnings management techniques have changed under different circumstances; the relationship between institutional factors and earnings management; and the relationship between crisis and earnings management. RAM/real earnings management (REM) has attracted increasing attention in the field of accounting research (Inaam *et al.*, 2012).

Though accounting literature has not focused as much on RAM as it does on accrual-based earnings management, in recent years, several researchers have studied RAM. Schipper (1989) first identified RAM as an intervention in the financial reporting

process of a firm with the sole aim of obtaining some personal gains. Managers alter real activities to meet their short-term goals that do not necessarily increase the firms' value in the future (Roychowdhury, 2006). Graham *et al.* (2005) surveyed 401 executives (CFOs or CEOs) and reported that around 78% of respondents prefer RAM to accrual-based earnings management to achieve financial reporting objectives. Cohen *et al.* (2010) document that in the post-SOX era, managers shifted from accrual-based earnings manipulation to RAM.

There are several reasons why managers prefer earnings manipulation through real activities (Cohen & Zarowin, 2010; Eldenburg *et al.*, 2011; Roychowdhury, 2006) which include, first, accrual-based earnings manipulation is at a higher risk because it draws auditor's litigations, regulatory investigations, and class action litigations. On the other hand, it is difficult for the shareholders and the outsiders of a firm to identify and to investigate RAM. Second, firms may have limited options and flexibility to manipulate accruals by altering accounting choices, but firms have several operating, investing, and financing activities, which they may alter within a broader range of flexibility. Third, accrual earnings manipulation usually takes place as an ex-post form, whereas managers can alter reported earnings through real activities anytime in the year at their convenience. Therefore, the assumption is that firms have several incentives to engage in earnings management by practising RAM rather than by using accrual-based earnings manipulations.

The literature has elaborated on RAM. For example, Eldenburg *et al.* (2011) find that firms with stronger performance incentives exhibit a significant incremental decrease in real expenditures. Chi, Lisic, and Pevzner (2011) document that firms resort to RAM when higher quality auditors constrain their ability to manage accruals. Kothari, Mizik, and Roychowdhury (2015) assess the role of RAM in overvaluation at the time of a seasoned equity offering (SEO). Their results reveal that earnings management is most closely and predictably linked with post-SEO stock market underperformance when RAM drives it. In another study, Cohen and Zarowin (2010) document that SEO firms engage in RAM, and the decline in post-SEO performance due to the RAM practices is more severe than that due to accrual management.

Hassan and Ibrahim (2014) show that gray directors (that is, non-executive directors who have a linked affiliation with the company) and women

directors can constrain managers' opportunistic RAM, while the inside directors could not. They also document that audit committee financial literacy is significant in preventing RAM. Sun *et al.* (2014) show that audit committee members' multiple directorships are less effective in constraining RAM. It is necessary to consider the definitions of RAM in the literature besides that proffered by Roychowdhury (2006).

4.3.2 Defining RAM

Different definitions of RAM exist in the academic literature (Carcello, Hollingsworth, Klein, & Neal, 2006; Inaam *et al.*, 2012; Roychowdhury, 2006). Roychowdhury (2006), as indicated before, defined RAM as actions taken by management that depart from usual business operations, initiated with the primary motive of achieving specific earnings targets. Earnings management does not contravene existing regulations and IFRS. However, earnings management can be inimical to the information quality of financial statements (Beest, Braam, & Boelens, 2009). Manipulations of earnings are through accruals, real activities, and shifting of core expenses. Usually, RAM practices take place during the current period. Gunny (2010) views RAM as a purposeful action to alter reported earnings in a direction which is achievable by changing the timing or structuring of operation, investment, or financing transaction, and which has suboptimal business consequences. Xu *et al.* (2007) viewed RAM as a deviation from normal operational activities to affect reported earnings.

Manipulations of real activities are not as widely studied as management of earnings through accruals. Graham *et al.* (2005) provided evidence indicating that executives opt for RAM in place of accrual-based earnings manipulation because RAM it is hardly distinguishable from ideal business operational choices. They are more complex to uncover and the costs associated with such activities can be economically devastating to the company. Although definitions of RAM do differ, peculiar to them all is that RAM is an engagement meant to benefit the executives and not the firm's shareholders. Graham *et al.*'s (2005) survey revealed that 80% of respondents prefer to reduce discretionary expenses on research and development, advertisements and maintenance to meet a certain earnings threshold. Above half of the respondents, 55.3%, prefer to delay implementing a new plan to achieve a certain earnings threshold, not minding the consequences of such action to the firm's worth. Policymakers, capital market participants, regulatory agencies, and academia are making efforts to curb such financial reporting abuses (Graham *et al.*, 2005).

In Nigeria, studies of earnings manipulations through real activities are limited. Hassan and Ibrahim (2014) and Bello *et al.* (2015) used only the cash flow from operations model in investigating the manipulation of real activities in listed manufacturing firms in Nigeria as reviewed earlier. Okolie (2014b) investigated the impact of the most studied three types of RAM on audit quality in firms listed on NSE. This is similar to the studies of Sanjaya and Saragih (2012) concerning Indonesia and Inaam *et al.* (2012) concerning Tunisia. It indicates the need for more studies in this area by researchers all over the world but more specifically in developing countries.

For this study, the RAM definition used is alterations of the usual operational processes done to satisfy management's greed, thereby misinforming and deceiving unwary stakeholders into accepting that achieving specific targets is by following the usual line of operations. These alterations are injurious to the well-being of the firm as well as the interest of all stakeholders.

Consistent with this definition, Graham *et al.*'s (2005) survey finds that (a) financial executives attach a high relevance to meeting earnings targets such as zero earnings, previous period's earnings, and analyst forecasts, and (b) they are willing to manipulate real activities to meet these targets even though the manipulation potentially reduces firm value. In the opinion of Roychowdhury (2006), RAM can decrease firm value since actions taken in the current period to boost earnings can harm cash flows in subsequent periods. For example, price discounts to boost sales and achieve some temporary earnings threshold can lead customers to anticipate such discounts in future periods as well. It can imply lower margins on future sales as the discounts will not be available. Overproduction generates excess inventories that must be sold in subsequent periods and imposes higher inventory holding costs on the company which will affect the flow of cash negatively as it becomes necessary to make payments for the holding costs incurred.

The practice of RAM changes the firm's decision processes (operation, investment, and financing) to skew earnings towards managers' targets and desires (Zang, 2012). The methods of RAM considered in this study are manipulation of sales, production cost and discretionary expenses. Roychowdhury (2006) developed the following metrics to measure these three frequently investigated types of RAM.

4.3.2.1 Sales manipulation

Sales activities manipulation refers to the decisions of managers to temporarily boost sales by lowering prices, granting price discounts and mild or weak credit terms/conditions (Roychowdhury, 2006). Manipulating earnings through this method will temporarily boost sale volumes, which leads to increased earnings and a decreased current period cash flow due to the discounts and credit sales. It becomes eroded in subsequent years since the increased sales level as a result of the discounts are likely to recede when the firm returns to the old prices (Roychowdhury, 2006; Sun *et al.*, 2014). Roychowdhury (2006) developed the following model to measure abnormal cash flow from operations (a proxy for sales manipulation) for each year and industry as available in the literature:

$$\frac{CFO_{it}}{TA_{i,t-1}} = b_0 + b_1 \frac{1}{TA_{i,t-1}} + b_2 \frac{SL_{it}}{TA_{i,t-1}} + b_3 \frac{\Delta SL_{it}}{TA_{i,t-1}} + \varepsilon_{it}$$

Where, CFO_{it} = the cash flows from operations for firm i at the period t;

$TA_{i,t-1}$ = the total assets at the end of the prior period (t-1) for firm i;

SL_{it} = the annual sale for firm i at the period t; and

ΔSL_{it} = the change in the sales for firm i in the current period.

4.3.2.2 Discretionary expenses manipulation

Discretionary expenditures such as R&D, advertisements, and selling, general and administration (SG&A) are period costs, which are usually taken into account immediately when incurred. Graham *et al.* (2005) showed that managers could reduce discretionary expenses when they are likely to miss their earning targets. Reducing such expenses will increase the reported earnings during the same period. If discretionary expenditures are generally in the form of cash, reducing such expenditures will also reduce cash outflows which will increase cash inflow from operations in the current period, possibly at the risk of lower cash inflow in the future (Roychowdhury, 2006). Roychowdhury (2006) developed a model to measure abnormal discretionary expenses (DISX) for each year and industry, which is commonly used in the literature and described as follows:

$$\frac{DISX_{it}}{TA_{i,t-1}} = b_0 + b_1 \frac{1}{TA_{i,t-1}} + b_2 \frac{SL_{i,t-1}}{TA_{i,t-1}} + \varepsilon_{it}$$

Where, $DISX_{it}$ = the discretionary expenses for firm i at the period t

4.3.2.3 Production cost manipulation

Managers choose to increase production abnormally to bring down the cost of goods sold. This technique allows managers to spread fixed production overhead costs on more units of production which results in decreasing the cost of goods sold (Roychowdhury, 2006). Indeed, such reduced cost of goods sold leads to an increase in profit margins based on the assumption that other factors will remain fixed. According to Manowan and Lin (2013), the use of this technique by managers makes detection difficult for other users of accounting information. However, because of such practices, these companies face lower financial performance in subsequent years. The recovery of the holding and production costs of the firm on the over-produced goods through sales revenue in the same period is not usually achievable. Roychowdhury (2006) identified production costs as the sum of the cost of goods sold and changes in inventory during the year. He developed the following model, which has been employed in previous studies to detect manipulation in production costs (a proxy for overproduction):

$$\frac{PROD_{it}}{TA_{i,t-1}} = b_0 + b_1 \frac{1}{TA_{i,t-1}} + b_2 \frac{SL_{i,t}}{TA_{i,t-1}} + b_3 \frac{\Delta SL_{i,t}}{TA_{i,t-1}} + b_4 \frac{\Delta SL_{i,t-1}}{TA_{i,t-1}} + \varepsilon_{it}$$

Where, $PROD_{it}$ = the production cost for firm i at the period t;

$\Delta SL_{i,t-1}$ = the change in the sales for firm i in the prior period.

The next section develops the hypotheses that investigated the construct of this study.

4.4 Hypotheses development

4.4.1 Audit committee and RAM

The audit committee appears to be a useful tool in constraining RAM. However, to date, very little empirical evidence demonstrating an association between the audit committee and the likelihood of RAM exists. The first section of Table 4.2 attests to this assertion, especially as it concerns Nigeria, as only two studies were available and reviewed. Managers use earnings manipulation to maximise the company's interest (shareholders interest) or to maximise their interest and cause an agency problem. Nonetheless, these different interests lead to conflicts (Rahahleh & Hamzah, 2019). Fama and Jensen (1983) and Rahahleh and Hamzah (2019) have argued that non-executive directors are valuable because they care about their reputational damage or harm, litigation risks and probable denial of future board directorship opportunities and therefore will be

motivated to perform their monitoring role effectively. Researchers have recognised the audit committee's role as being critical in ensuring the credibility of the financial statements (Abbott *et al.*, 2001; Rahahleh & Hamzah, 2019). Therefore, the audit committee as a monitoring mechanism is intended to reduce information asymmetries between management and stakeholders, since its essential functions are to improve the quality and accuracy of financial information by continually monitoring management's opportunistic behaviours (Li, Mangena, & Pike, 2012). Krishnan and Visvanathan (2008) indicated that RAM has increased since the introduction of SOX (2002). Their study found a negative association between RAM and characteristics of audit committees; however, certain audit committees characteristics may play a role in constraining RAM. In contrast, Carcello *et al.* (2006) showed either no relationship or a direct relationship between audit committee characteristics and RAM. The same applies to the studies of Bello *et al.* (2015) and Hassan and Ibrahim (2014), which both found a positive and significant relationship with some audit committee attributes. As there are conflicting results on the impact of various attributes of the audit committee on RAM, the following hypothesis was formed to examine this impact:

H₁: Attributes of audit committee members in Nigerian listed companies has a negative effect on real activities manipulations.

This hypothesis is further subdivided into six to capture all the six dimensions of the attributes under investigation, namely, audit committee independence, audit committee financial literacy, audit committee female directorships, audit committee frequency of meetings, audit committee multiple directorships, and audit committee size. The next section reviews empirical literature on the relationship of these attributes of audit committee and RAM, and then forms the related hypotheses.

4.4.1.1 Audit committee independence (ACIND) and RAM

Audit committee independence refers to the proportion of the independent directors in the audit committee. A common prediction is that monitoring functions will increase when the audit committee is more independent (Ali & Handayani, 2018; Inaam *et al.*, 2012). Theories postulate that when the board includes more numbers of independent directors, it will better oversee and control the executive directors' actions and connect the company with its external environment (Ali & Handayani, 2018). Empirically, studies provide inconsistent results. For example, Inaam *et al.* (2012) found a significant

negative relationship between audit committee independence and all measures of RAM which included sales manipulations and overproduction. Other studies that recorded an insignificant relationship with RAM include those of Abdullah and Wan-Hussin (2015), Bello *et al.* (2015), Talbi *et al.* (2015), Garven (2015), Hassan and Ibrahim (2014), and Emna, Trabelsi, and Matoussi (2014). The reviewed studies revealed an insignificant relationship between audit committee independence and RAM. Therefore, this study hypothesises that:

H_{1A}: Audit committee independence has a negative effect on real activities manipulations in Nigerian listed companies.

4.4.1.2 Audit committee financial expertise (ACFLT) and RAM

An essential audit committee attribute that has gained the attention of regulators and researchers is financial expertise (Dhaliwal *et al.*, 2010). Many professional and regulatory bodies worldwide have suggested that audit committee members should have enough financial expertise to discharge their responsibilities (Ghafran & O'Sullivan, 2013). Audit committee members with financial knowledge help in better understanding the accounting procedures and financial reporting process (Lin, Xiao, & Tang, 2008). Therefore, directors with financial knowledge, skills, and expertise are likely to increase the monitoring role and enhance the quality of financial reporting. Empirically, studies provide mixed results, for example, Bello *et al.* (2015), Abdullah and Wan-Hussin (2015) and Hassan and Ibrahim (2014) find a significant negative relationship between audit committee financial expertise, whereas Susanto and Pradipta (2016) and Inaam *et al.* (2012) find no significant effect of audit committee financial expertise on RAM. Given the mixed results, therefore, this study hypothesises that:

H_{1B}: Audit committee financial literacy has a negative effect on the manipulations of real activities in Nigerian listed companies.

4.4.1.3 Audit committee meeting frequency (ACMTG) and RAM

Audit committee meeting frequency refers to the number of the audit committee meetings held during the fiscal year. An audit committee that meets infrequently is unlikely to be effective monitors of managers and focus on issues like RAM. Empirically, Garven (2015) reported that audit committee meeting frequency effectively curbs RAM as it has a negative statistically significant relationship with RAM. However, Abdullah and Wan-Hussin (2015) and Inaam *et al.* (2012) found an insignificant relationship between audit committee meeting frequency and RAM. Some

studies found a positive statistically significant relationship between audit committee meeting frequency and RAM which implied that increasing the number of audit committee meetings will lead to a proportional increase in RAM practices (Bello *et al.*, 2015; Hassan & Ibrahim, 2014; Susanto & Pradipta, 2016). Considering the mixed results, therefore, this study hypothesises that:

H_{1C}: Audit committee frequency of meetings has a negative effect on the manipulations of real activities in Nigerian listed companies.

4.4.1.4 Audit committee female directorships (ACFDR) and RAM

Bordean and Borza (2017) are of the view that men are the dominant gender on most corporate boards. The issue of gender diversity is attracting more attention, and agency and stakeholder theories explained the need for gender diversity on corporate boards (Cabrera-Fernández, Martínez-Jiménez, & Hernández-Ortiz, 2016). The assumption is that female audit committee members contribute to stricter oversight functions of the audit committee and cooperate more with the external auditors (Velte, 2017). In the opinion of Gul, Srinidhi, and Ng (2011), earnings manipulation decreases if an audit committee has even one female member. Gul *et al.* (2011) also revealed that the tendency for male members to be less ethical than their female counterparts is high. This latter opinion is supported by Bruns Jr and Merchant (2006) that earnings manipulation is a moral issue. Studies confirmed that women present a more ethical view than men, and they seem to be more capable of identifying unethical behaviours (Eweje & Brunton, 2010). Similarly, other studies indicated that female directors are more risk-averse in decision making and are more conservative than men (Eckel & Grossman, 2008; Man & Wong, 2013). These two attributes (aversion and conservatism) may influence the integrity of the financial reporting process. As argued by Man and Wong (2013), earnings manipulation is associated with risk and as women present more conservative behaviours than men, this may lead to the conclusion that men are more likely to manipulate financial statements than women. Krishnan and Parsons (2008) investigated Fortune 500 companies from 1996-2000 for the association between earnings quality and the presence of women in managerial positions. They found that earnings manipulation is low and earnings quality is higher when there is at least one female director on the audit committee.

However, in contrast, Sun *et al.* (2011), questioned whether a director's gender on a completely independent audit committee impinges on the committee's capacity to constrain manipulation of earnings and thereby influence their oversight function on the process of financial reporting. The study found an insignificant relationship between the ratio of female directorships and the depth of earnings manipulations, using 525 firm-year data between the years 2003 to 2005. In a similar vein, Sanjaya and Jati (2015), while considering the characteristics of the audit committee and RAM, found that audit committee gender (measured by the proportion of female members of the committee) has no significant relationship with RAM. The following hypothesis is formed:

H_{1D}: Audit committee female directorship has a negative effect on real activities manipulations in Nigerian listed companies.

4.4.1.5 Audit committee multiple directorships (ACMDR) and RAM

Directors who have additional directorships in other companies may find that this enhances their monitoring role as they can gain greater experience from these different positions (Bédard *et al.*, 2004; Sun *et al.*, 2014). Another view is that directors with additional directorships may become less effective as they are busy. Due to the costs and benefits associated with multiple directorships, there are both potentially positive and negative effects of audit committee members with multiple directorships on audit committee effectiveness. An audit committee member with high multiple directorships might be overcommitted and therefore contribute less time and effort to the audit committee service. On the other hand, an audit committee member with high multiple directorships might contribute to its effective functioning as he or she might bring more experience (knowledge transfer effect) and have stronger incentives to monitor because of the higher reputational capital at stake (labour market effect). Both time commitment and expertise are important to audit committee effectiveness. Therefore, the overall effect of multiple directorships on audit committee effectiveness is uncertain. Previous studies have examined the role of audit committee member's additional directorship and RAM. These studies provide empirical evidence that audit committee members' additional directorships are positively associated with RAM (Garven, 2015; Sun *et al.*, 2014), indicating that the oversight functions of the audit committee decrease with additional directorship seats (Garven, 2015). Based on these reviews, the study hypothesises thus:

H_{1E}: Audit committee multiple directorship has a negative effect on real activities manipulations in Nigerian listed companies.

4.4.1.6 Audit committee size (ACSIZE) and RAM

The size of an audit committee may play an important role in monitoring earnings manipulations (Juhmani, 2017). Krishnan and Visvanathan (2008) have shown that the objective in determining optimal audit committee size is to have a committee small enough to be manageable but large enough to monitor effectively. Thus, to effectively monitor RAM, a committee larger than the required minimum may be needed. However, in the reviewed studies on the audit committee attributes/characteristics and RAM, shown in Table 4.2, indicates that there is no study which provides evidence on the relationship between audit committee size and RAM except Sun *et al.* (2014). This suggests that audit committee size has little or no significant effect on RAM practices. The following studies, Bello *et al.* (2015), Hassan and Ibrahim (2014) and Inaam *et al.* (2012), all reported a significant positive relationship between the size of the audit committee and RAM. It implies that the size of an audit committee serves as a motivation for managers to manipulate real activities. Other studies, for example, Susanto and Pradipta (2016), Abdullah and Wan-Hussin (2015), Garven (2015), and Visvanathan (2008), failed to find a significant relationship with RAM. Given these findings, it is appropriate to hypothesise thus:

H_{1F}: Audit committee size has a negative effect on the manipulation of real activities in Nigerian listed companies.

4.5 Codes of corporate governance and RAM

The review of codes of corporate governance in Nigeria is in Chapter Two. The essence of the codes is to promote good corporate governance and institute a culture of accountability and sound ethics. The two codes of corporate governance issued by SEC are the focus of this section, that is, the 2003 and 2011 SEC codes. The SEC code applies to all public entities listed on the NSE, which should comply with the principles and provisions of the code. The principles and provisions serve as the basis of the minimum standards of their corporate behaviour. Other entities covered by the SEC code are all companies seeking to raise funds from the capital market through the issuance of securities or seeking listing by introduction. The companies are to demonstrate sufficient compliance with the principles and provisions of the code

appropriate to their size, circumstances or operating environment as per S.1 SEC (2011) Code. In Nigeria, the first code of corporate governance for all public companies was issued by the SEC in 2003. There are many similarities between the SEC (2003) Code in Nigeria and the *Code of Best Corporate Practices* developed in the UK based on the 1992 Cadbury's Report (Ahunwan, 2002). Just as it was the case with the 1992 Cadbury's Report in the UK, following several criticisms of the SEC (2003) code, a committee was set up in 2008 to review its weaknesses and to align it as much as possible with international standards and best practices. This led to the development of SEC (2011) Code which currently is the applicable corporate governance code for all public firms in Nigeria. In examining the impact of these codes on the practices of RAM in listed companies in Nigeria, the hypotheses formed are:

H₂: The codes of corporate governance has a negative significant effect on real activities manipulations in Nigerian listed companies.

This hypothesis (**H₂**) is viewed from two perspectives *vis-à-vis* when Nigeria SEC first introduced the code in 2003 and when it later reviewed it in the year 2011. Hereunder are the formulated hypotheses:

H_{2A}: The introduction of the code of corporate governance by the Nigeria SEC in 2003 has a negative effect on RAM in Nigerian listed companies.

H_{2B}: The review of the code of corporate governance in 2011 has a negative effect on RAM in Nigerian listed companies.

4.6 Conceptual framework on the audit committee and RAM

This section presents a diagrammatical representation of the theorised interrelationships of the variables involved in this study. The conceptualisation of variables in academic research is essential because it forms the basis for testing the hypotheses formulated and the generalisations of the findings made in the research. It is a usual practice for researchers to hypothesise the relationships between independent and dependent variables (Cooper & Schindler, 2013).

In this research, the independent variables are the conceptualised audit committee attributes which include, independence financial literacy, meeting frequency, female directorships, multiple directorships, and size. The dependent variable of the study is RAM, proxied by sales manipulation, discretionary expenses manipulation, and

production cost manipulation. The study hypothesised that all the conceptualised audit committee attributes would have negative significant effect on RAM in Nigerian listed companies.

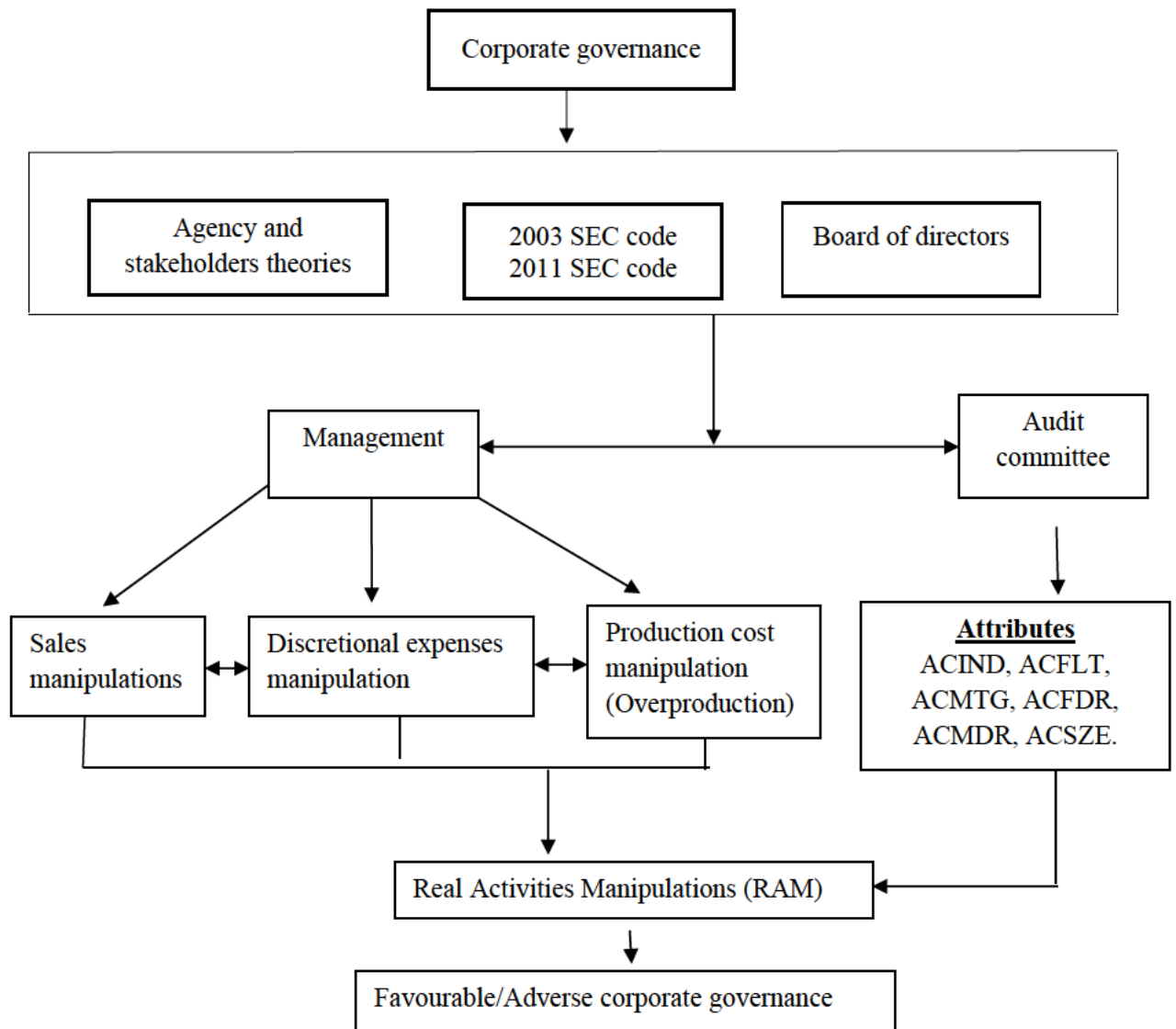


Figure 4.1 Diagrammatical representation of the conceptual framework

The conceptual framework in Figure 4.1 depends on the stated problems, research objectives, theoretical and regulatory frameworks, literature reviews and hypotheses developed. The conceptual framework presents a diagrammatic representation of the study, linking the theories, the codes and the board of directors as critical in ensuring good corporate governance. The board of directors through the instrumentality of the theoretical (agency and stakeholder theories) and regulatory (SEC codes of corporate governance, other corporate laws) frameworks delegates its powers and oversight function on financial reporting process (which is a prerogative of the management) to a vital governance mechanism (audit committee) to prevent or limit the occurrence or practices of RAM in Nigerian listed companies.

4.7 Summary

The chapter focused on the literature review, hypotheses' development, and the presentation of the conceptual framework of the study. Audit committee and RAM literature are evolving as it attracts more and more researchers' attention from both the developed and developing nations. This chapter presented a comprehensive review of the audit committee and RAM literature as related to this study. It reviewed previous literature on audit committee attributes (audit committee independence, audit committee financial literacy, audit committee frequency of meetings, audit committee multiple directorships, audit committee female directorship, and audit committee size) under investigation. It also reviewed the literature on the RAM proxies under investigation. The chapter highlighted and reviewed several previous studies that have investigated audit committee attributes/characteristics and RAM both in Nigeria and elsewhere in the world. Also reviewed are other studies in Nigeria that investigated the effectiveness of audit committee attributes/characteristics. The chapter presented a diagrammatic representation of the conceptual framework of the study, linking the theories, the codes and the board of directors as essential elements in achieving good corporate governance.

The next chapter presents a methodological perspective of the secondary data aspect of this research. As this study is a multimethod quantitative research study, the study is adopting two quantitative methods to investigate the construct of this research. The study used both secondary (archival) data and primary (survey) data. Therefore, the next chapter presents the first leg of the multimethod research methodology.

CHAPTER FIVE: RESEARCH METHODOLOGY ON SECONDARY DATA ANALYSES

5.1 Introduction

The previous chapters presented the frameworks (theoretical, conceptual, and legislative) and literature review that guided this research study. Chapter One identified the research problem, the purpose of this study, and the research questions. Chapters Two, Three, and Four provided a literature review of amongst others, the theoretical, conceptual, and regulatory frameworks; audit committee effectiveness and attributes; an overview of RAM, and the cost and practices which provide evidence of RAM. All these lay the basis for the empirical investigation of this research.

The research methodology is the roadmap that deals with the manners in which data is collected, analysed and interpreted to achieve research objectives. This chapter sets out the research methodology of the empirical investigation, detailing the paradigmatic inclination, research design process, and methodological choice based on the research purpose and research questions in Chapter One. It indicates why within-method triangulation approach is considered appropriate for this study. The structure of this chapter is as follows; section 5.2 outlines the research design and the scope of the study, while section 5.3 presents the population of the study. Details on sampling and data sources; data and data type; and instruments of data collection are discussed in sections 5.4, 5.5 and 5.6, respectively. Section 5.7 describes the models' specification and variables' measurement, while section 5.8 discusses the techniques of data analysis adopted for secondary data collected. Finally, section 5.9 summarises the chapter.

5.2 Philosophical assumptions and paradigmatic inclination

It is essential to locate the paradigm base of a research study. According to Brannen (2005), the methodological choice depends on philosophical (epistemological and ontological) underpinnings. Paradigm, as stated by Hanson, Creswell, Clark, Petska, and Creswell (2005), is epistemology (how things are known), ontology (nature of reality), axiology (values) and methodology (the process of research) (Hanson *et al.*, 2005). In other words, paradigm differences influence how things are perceived, the interpretation of reality, values and methodology in research.

The approach in accounting research was nearly exclusively of a quantitative or positivist tradition, which was predicated on the necessity for the researcher to be

objective and unbiased. For many, it is the 'gold standard'. Positivism contends that there is a single reality and therefore seeks to identify causal relationships through objective measurement and quantitative analysis (Firestone, 1987).

Lukka (2010), while discussing the roles and effects of paradigm in accounting research and ascribing to the return of the paradigm debate especially in an accounting discipline, describes accounting as a single-paradigm discipline, strongly dominated by one paradigm. According to him, 'hard-core accounting research' is based on large archival data sets or analytical modelling. As a result of this dominant paradigm (the positivist/functionalist mainstream), debates around the notion of paradigm is inappropriate. There is no doubt as to an increasing homogeneity and conformity in accounting research as a result of this dominating paradigm (Gendron, 2008; Lukka, 2010; Merchant, 2010). Many accounting researchers now share similar views as to what amounts to a contribution to research. They also communicate in the same language. These characteristics are attributable to the risks associated with the dominance of a single paradigm (Lukka, 2010).

The characteristics have also brought a broad dichotomy between financial accounting (the mainstream) scholars and scholars in management accounting (other accounting fields inclusive). Merchant (2010), in reviewing publications in six top-ranked accounting journals [Journal of Accounting and Economics (JAE), Journal of Accounting Research (JAR), The Accounting Review (TAR), Contemporary Accounting Research (CAR), Research on Accounting Studies (RAST), Accounting, Organisations and Society (AOS)], reported that only publications in the mainstream areas are appropriate. Papers devoid of empirical tests of economic-based models using archival datasets are not acceptable in the top-ranked journals. He argued that the consequence of this is that some essential research traditions (e.g., historical analysis, field research, survey research) are out of the accounting academy. These 'neglected' research methods play prominent roles in accounting knowledge development and other fields, and this domineering trait will have a lasting scar in the accounting discipline. This situation can limit the extent of intellectual activities in accounting research. In the meantime, things are likely to get worse before achieving a better position (Lukka, 2010; Merchant, 2010).

This study, though premised in the positivist paradigm uses two quantitative approaches, that is, archival and survey approaches, the ‘favoured’ and the ‘neglected’ according to Merchant (2010). This choice is an attempt to deviate from the seeming narrowness of accounting research as portrayed by Lukka (2010) and Merchant (2010) and foster multidimensional openness in accounting research. The next section discusses the research design.

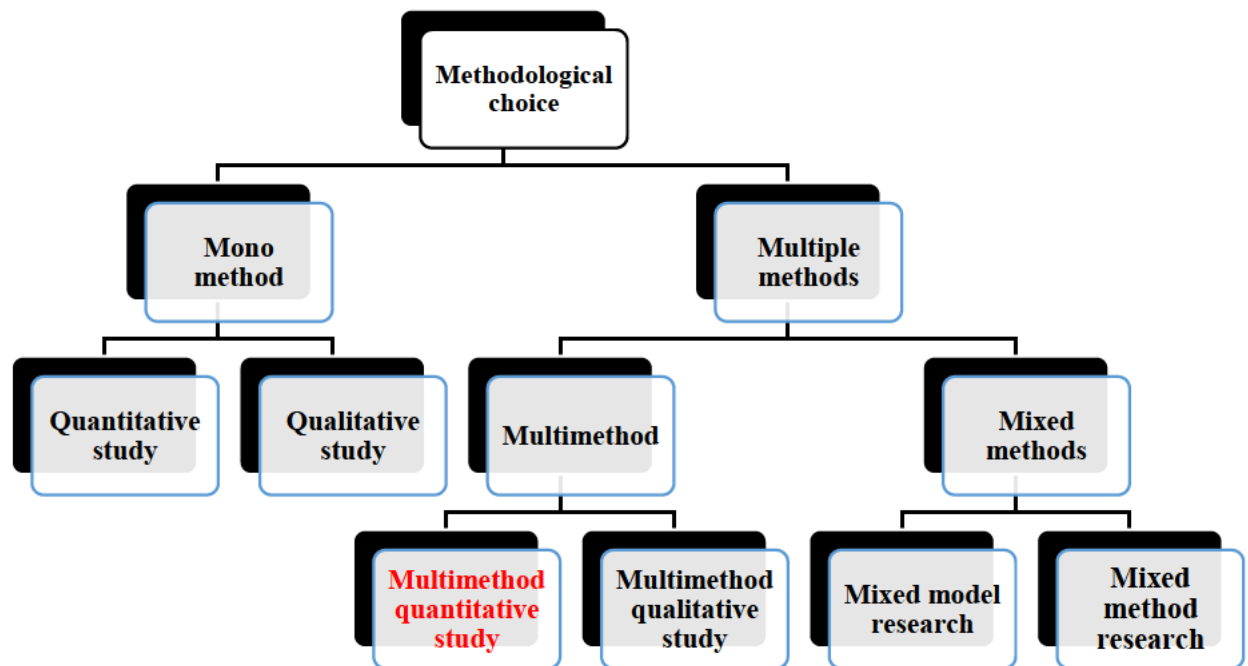


Figure 5.1 Basic research typology

Source: Saunders, Lewis, and Thornhill (2012, p. 165)

5.3 The methodological choice in this thesis

The preceding section discussed the philosophical assumptions and paradigmatic inclination of this thesis. The ontological and epistemological stance of this study, as reflected above, is positivism. From Figure 5.2 above, the methodological choice is made more explicit, that is, a multimethod quantitative study. This is elaborated on in subsequent sections. Details about the research design and triangulation considerations are in the next section.

5.3.1 Research design

Creswell and Clark (2017, p. 58) define research design as "procedures for collecting, analysing, interpreting, and reporting data in research studies". The classification of

mixed methods design has attracted attention since the end of the 1980s (Creswell & Clark, 2017). For example, Tashakkori, Teddlie, and Kervin (2000) generate three different types of mixed method designs: 1) equivalent status designs (sequential or parallel); 2) dominant/less-dominant designs (sequential or parallel); and 3) multilevel use of approaches. Creswell and Clark (2017) classify that there are four major types of mixed methods designs: triangulation design, embedded design, explanatory design, and exploratory design.

There are several design options available based on these various mixed-method designs' classification. Specific issues are involved in all of them that makes these designs possess more similarities than differences (Creswell & Clark, 2017). It is essential to consider these issues at this stage which includes:

- 1) data collection and analyses sequence,
- 2) the weighting or priority given to each of the methods involved, and
- 3) the point(s) or stage(s) of integration in the research process, that is, where the two phases are connected or mixed.

Therefore, the research design of this study is addressed in line with these issues, that is, the timing, weighting, and mixing decisions.

5.3.1.1 The timing decision

Timing (also known as "implementation" or "sequence") is the temporal relationship of the multiple methods of collecting data and its analysis (Creswell & Clark, 2017; Greene, Caracelli, & Graham, 1989; Morgan, 2010). In other words, it relates to the decision on which of the multiple methods come in sequence (one preceding the other), or concurrently (simultaneously) (Ivankova, Creswell, & Stick, 2006). The various answers to this question give rise to two ways of designing multiple methods research: the concurrent (also referred to as "parallel") or the sequential study (Creswell & Clark, 2017; Tashakkori *et al.*, 2000).

In this study, the choice of sequential explanatory design is due to both theoretical and practical considerations. The sequential design aims to collect and analyse quantitative data to provide a general understanding of the research problem. The findings of the second phase will illuminate, refine, explain or refute the empirical findings of the first phase. This study uses both secondary and primary data to understand and provide more comprehensive and complementary explanations of the same phenomenon. In other

words, the study adopts a within-method triangulation (this is discussed further in the subsequent section). After the timing decision, the next decision is to consider the weight attached to these methods. It is necessary to decide on the emphasis or priority on these methods, that is, the weighting decision needs consideration.

5.3.1.2 The weighting decision

Weighting is synonymous to the relative importance or priority of the multiple techniques in answering the research questions (Creswell & Clark, 2017). When selecting a multiple methods approach, it is crucial to consider assigning the weight to each method.

In a sequential design, two weighting options are available, equal and unequal. In an unequal weighting option, one of the methods is given more priority over the other, and it plays a more dominant role in addressing the research problems than the other method (Creswell & Clark, 2017). The choice of a dominant method or approach will depend on numerous considerations which include, the world view, research purposes and questions, and some practical issues (Creswell, 2009; Creswell & Clark, 2017).

In this study, the priority is on the archival study approach. This decision is predicated primarily by the research objectives of this study, which is to ascertain the prevalence of RAM, the effect of audit committee attributes on RAM, and the effects of corporate governance codes on RAM. An archival study is robust and dominant in accounting research (Merchant, 2010). As revealed in the literature in Chapter Four, studies of this nature are appropriate using an archival method. This study, in line with Merchant's view, adopts archival approach while using survey research in a complementary capacity.

Practical considerations influence the weighting decision. Archival (secondary) data is high-quality data, publicly available and much easier to access than the survey data (Bryman, 2008). Source of archival data is devoid of human judgement and biases, and as a result, can be said to be more reliable. It affords repeatability and comparison at any point in time. It is not susceptible to changes, no matter the prevailing circumstances or situation (Bryman, 2008).

Considering the above issues, the best choice for this current study is to conduct a sequential archival-dominant multimethod research study. Multimethod research is such a procedure (within the same paradigm) that collects and analyses two types of data; it also mixes and integrates them (Saunders *et al.*, 2012). In addition to timing and weighting decisions, it is essential to consider at which stage or stages the methods involved are connected or integrated.

5.3.1.3 The mixing decision

The mixing (integration) decision, which is the third procedural consideration for multiple methods design, is about how the various data collected relate to each other. It is vital to integrate the two datasets involved in a single study for this is a distinguishing factor of a multiple methods approach (Creswell & Clark, 2017).

According to Woolley (2009), the integration of the two datasets involved in a single study makes their similarity to illuminate and produce results that are greater than the sum of parts. In sequential design, collection and analyses of the two datasets are done consecutively, with one phase preceding the other. Integration of data is achieved at the results' discussion and interpretation stage, that is, after completing the second phase of the study. Full cohesion of the findings occurs after the completion of both stages.

This study utilises a monomethod multi-strand research design that adopts an archival approach, followed by a survey to answer research questions 1 to 3, (Saunders *et al.*, 2012). The design is sequential correlational research because the archival study, using secondary panel data preceded the survey study using primary data through the administration of questionnaires as shown in Appendix 1. The archival study is the dominant method while the survey administration serves as a complementary study, to enhance, elaborate, complement, or clarify the results from the archival study. This research design creates a more comprehensive understanding of the impact of audit committee attributes on RAM in listed companies in Nigeria.

5.3.2 Triangulation

Triangulation aims to reveal complementarity, convergence and dissonance among the findings (Farmer, Robinson, Elliott, & Eyles, 2006). The use of triangulation in research has mixed views. Some scholars argue that triangulation is just for increasing the broader and deep understanding of the study phenomenon (Hussein, 2009). Other

scholars have argued that triangulation increases the study's accuracy, in this case, triangulation is one of the validity measures (Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014; Guion, Diehl, & McDonald, 2011; Hussein, 2009). Creswell and Miller (2000) define triangulation as a validity procedure in the quest for convergence among diverse sources of information to form thoughts or categories in a study. These views imply that triangulation combines two or more theoretical perspectives, methodological approaches, investigators, data sources, and analytical methods to study the same phenomenon. These lead to types of triangulation; which are, methodological triangulation, investigator triangulation, theoretical triangulation, analysis triangulation and data triangulation (Carter *et al.*, 2014; Denzin, 1989). In this case, when a researcher employs more than one type of triangulation in a single study, then multiple triangulations is said to have been employed (Polit & Hungler, 1995).

5.3.2.1 Types of triangulation

a) Data triangulation

Data sources triangulation is the use of multiple data sources in the same study for validation purposes. According to Turner and Turner (2009), three types of data triangulation exist, namely, time, space and person. These types of data triangulation come as a consequence of the idea that data robustness may differ based on the time of the data collection, the participants in the data collection process and the data collection setting (Begley, 1996).

b) Theoretical triangulation

Theoretical triangulation refers to using multiple theories in the same study to support or refute findings since several theories assist researchers in seeing the problem at hand using multiple lenses (Hussein, 2009). Both related and competing theories use the formulated hypotheses to provide a broader and more in-depth understanding of the research problem at hand (Banik, 1993).

c) Investigator triangulation

This triangulation method uses more than two researchers in any of the research stages in the same study. It involves using multiple observers, interviewers, or data analysts in the same study for confirmation purposes (Hales, 2010; Turner & Turner, 2009).

d) Analysis triangulation

Analysis triangulation or data analysis triangulation is the use of more than two methods of analysing the same set of data for validation purposes (Flick, 2004). In addition to validation purposes, analysis triangulation can be described further as the use of more than two methods of data analysis in qualitative and quantitative paradigms within the same study for both validation and completeness purposes. In other words, whenever a researcher uses both qualitative and quantitative data in the same study, then more than two methods are needed in the analysis towards attaining data validation within the single paradigm; further extending the analysis between the two paradigms for completeness purposes.

e) Methodological triangulation

Methodological triangulation or mixed-methods/multimethod research uses more than one kind of method to study a phenomenon (Bekhet & Zauszniewski, 2012; Casey & Murphy, 2009; Risjord, Moloney, & Dunbar, 2001). Two types of methodological triangulation exist, which are "across method/between-method" and "within method". "Across-method" studies combine quantitative and qualitative techniques of data collection (Casey & Murphy, 2009; Hussein, 2009). Qualitative methods are explanatory and textual and include passive observation, participant observation and open-ended interviews (Risjord *et al.*, 2001). Quantitative methods include statistical analysis of outcomes or questionnaires, collected by standardised scales or measures and expressed numerically (Risjord *et al.*, 2001). Different scholars use diverse nomenclature in referring to within-method triangulation, which includes mixed-mode research (De Leeuw & Hox, 2008), multimethod research (Niglas, 2004), and monomethod multi-strand research design (Saunders *et al.*, 2012). Irrespective of any criticism and terminology, this research strategy enjoys the advantages of triangulation.

Within-method studies use two or more data-collection procedures, quantitative or qualitative, but not both. For example, on one hand, collecting quantitative data using two methods, such as survey questionnaires, and a pre-existing database; on the other hand, collecting qualitative data using participant observation and interviews (Casey & Murphy, 2009; Denzin, 1989). Methodological triangulation is beneficial in confirming findings, more comprehensive data, increased validity and enhanced understanding of the studied phenomenon (Bekhet & Zauszniewski, 2012; Casey & Murphy, 2009; Risjord *et al.*, 2001).

Vaivio and Sirén (2010) are of the view that combining multiple research methods to investigate management accounting phenomena was advanced by Birnberg, Shields, and Young (1990). Examining the strengths and weaknesses of survey, field, and experimental methods, they opined that no research method dominates on the criteria that they lay out, thereby supporting the use of multiple methods in accounting research. Abernethy, Chua, Lockett, and Selto (1999), while clarifying the trade-offs that exist in experimental, field research, and survey, concluded that it is possible to overcome some of the limitations of these different methods by methodological triangulation. The purpose of triangulation is to extract the strengths and diminish the weaknesses in both approaches within a single study (Jick, 1979; Sharif & Armitage, 2004; Yeasmin & Rahman, 2012).

While many researchers have used well-established methodological triangulation, there are few published examples of its use to enhance studies till date in accounting discipline (Lukka, 2010). However, several previous studies have investigated audit committee attributes and RAM using monomethod mono-strand design, that is, either the traditional quantitative design or the conventional qualitative design. This study used methodological triangulation (within-method triangulation) to examine how the audit committee attributes impact RAM in listed companies in Nigeria.

5.3.2.2 Weaknesses of triangulation

Triangulation uses resources, such as time, effort, and funds extensively. It involves the time devoted to collect and analyse different types of data required for the study, the need to include or engage research assistance, and the general coordination of the entire research process. Despite these disadvantages, the use of methodological triangulation is significant in a wide range of research (Garforth & Kerr, 2010; Hussein, 2009; Weyers, Strydom, & Huisamen, 2008).

5.4 The scope

The study covers a period of 14 years (2001 – 2014) investigating audit committee attributes and RAM. This period includes 2003 when SEC introduces the corporate governance code and its subsequent review in 2011. In turn, 2014 was the last year of analysis, because when the fieldwork commenced, the 2014 published annual reports were the ‘current published annual report’ for all the companies listed on the NSE. Some firms’ 2014 published yearly reports were not available until 2017. The study is

limited to only companies listed on NSE due to availability of required data. Details on data types, collection tools and methods are discussed in subsequent sections in this chapter.

5.5 The population and sampling

The study includes all the listed companies on the NSE between 1st January 1999 and 31st December 2014 as its population. This study uses the 'filtering' and 'availability', non-probability sampling method to select the sample size. To be chosen, a company must be consistently listed on the NSE from the year 1999 up to 2014 and must have the required data. The use of availability criterion excludes firms delisted from the NSE during this period. The availability criterion require that 16 years of data (1999-2014) is necessary for any of the sampled companies to be appropriate and fit for this research. To estimate the parameters on RAM, the sampled firms must have published annual reports from 1999. The data on audit committee attributes is appropriate only from the year 2001, the base year for the sample size.

Table 5.1: Determination of sample size used for the study

Total firms listed on the NSE as at 31/12/2014		197
Less firms in the financial sector	59	
Less firms that were not consistently listed from 1/1/1999	<u>42</u>	<u>101</u>
Firms that were not consistently listed from 1/1/1999		96
Less firms that lack sufficient annual reports but consistently listed		<u>22</u>
Final study sample		<u>74</u>

Table 5.1 illustrates the sample size composition. There are 96 companies that were consistently listed from January 1, 1999 to December 31, 2014, however, only 74 companies satisfy the availability criterion and therefore became the sample size for this study.

Table 5.2 gives a breakdown of the sampled companies into their various sectors. It reveals the representation of each sector in the percentage column. The conglomerates sector has the highest representation of 83.3% while the lowest representation is from the ICT sector with just 16.67%. The sample size is exactly 37.56% of the population.

Table 5.2: Categorisation of the sampled companies into sector

Industrial sectors	Population No of firms	Sample No of firms	Percentage
1. Agriculture	5	2	40.00
2. Conglomerates	6	5	83.30
3. Construction/Real estate	11	5	45.45
4. Consumer goods	28	18	64.28
5. Health care	11	7	63.64
6. Information Communication Technology (ICT)	12	2	16.67
7. Industrial goods	24	16	66.67
8. Natural resources	5	3	60.00
9. Oil and gas	14	7	50.00
10. Services	22	9	40.91
11. Financial	59	0	0.00
Total	<u>197</u>	<u>74</u>	37.56

5.6 Sample and sources of data

The period for this study covers the companies listed on the NSE from January 1, 2001 to December 31, 2014 but secondary data required extends it back to January 1, 1999. The two years extension is to provide the necessary data on lagged change in sales, which is a requirement for production costs manipulation model as captured in 5.8.1.3. The review involves only nonfinancial companies. The financial sector due to its peculiarity operates in a highly regulated industry that has a separate accounting policy, corporate governance codes and regulatory agencies. The non-inclusion of financial companies will afford comparability of the study outcome among the sampled companies. Companies that did not have all the required data necessary for this study within the relevant period, even if they remain consistently listed within the related period, were not included in the sample.

The secondary data (financial information) collected was from the annual reports of the sampled Nigerian companies using the INET BFA database, the website of African financials, NSE and SEC libraries, the archive of Independent Shareholders' Association of Nigeria (ISAN) in Lagos, the head offices of the sampled companies, and the companies' websites (where necessary). Chapter Seven discusses the collection of survey (primary) data.

5.7 Data and data types

5.7.1 Data

Accounting and business researchers obtain data from multiple sources depending on the objective and research design of a study (Bjurman & Weihagen, 2013). Data is

critical and significant in accounting research. Research questions, research design and availability of data determine the data sources. Secondary data are information disclosed by companies in published financial statements (Smith, 2011). Several advantages exist if researchers use secondary sources. It is less expensive, less time-consuming, often involves high-quality data, and it affords a reasonable time to analyse the results. The drawbacks are an unfamiliar dataset, critical variables might be lacking, and the data is complex with limited data quality control (Bryman, 2008).

This study used a sample of 74 non-financial companies listed on the NSE. The firms must have an audit committee and disclose the information necessary for this study. The sampled firms represent 37.56% of the total firms listed on the NSE as of December 31 2014. Except for the financial sector (which comprises of five industries), the sample size includes the remaining eleven sectors of firms listed on the NSE. The exclusion of the financial sector is in line with prior studies of this nature (Cohen, Pandit, Wasley, & Zach, 2014; Cohen & Zarowin, 2010; Gunny, 2005; Roychowdhury, 2006; Zang, 2012; Zhu & Lu, 2013). Three categories of data were collected: data on audit committees; data on RAM and the control variables; and data obtained through survey. Chapter Seven discusses the survey data collections.

Data on audit committees: These are purely non-financial data. No database contains data regarding audit committees in Nigeria. Obtaining this information is only possible from the annual reports of the selected companies from 2001-2014, especially from the section labelled "Audit Committee Report". This section reports the company's audit committee activities, membership, meetings, and other attributes. Letters were emailed to the company secretaries requesting the information that was not available from the published financial statements.

5.7.2 Data types

5.7.2.1 Secondary data

All secondary data collected on firms are from the annual reports of 74 companies listed on the NSE. All data is hand-collected due to non-availability of the required data in any known database. The study focuses on RAM at an annual level, and therefore annual data was used in the regression analysis. Annual data are presumed to be of higher significance than quarterly data; incentives to manipulate real activities are more

significant and stronger at an annual level (Bjurman & Weihagen, 2013; Roychowdhury, 2006).

In line with previous studies of this nature, it was appropriate to eliminate firms in the financial sector, that is, banks and insurance companies due to the differences in accounting approach and governance framework (Badertscher, 2011; Gunny, 2010). The regression analyses are on 1036 firm-year observations with the minimum requirement of 14 years observations (2001-2014) per firm-year. It is necessary to state here that data for research and development (R&D) was not available for numerous firms. Implicitly, when sales, general and administration (SG&A) expenses are available, and R&D expense is unavailable, then R&D expense is equal to zero (Roychowdhury, 2006).

5.7.2.2 Secondary data collection

Data collection exercise is sequential. First is the collection and analyses of secondary data and immediately following is the collection and analyses of the primary data. INET BFA database and NSE Factbook does not contain all the required information necessary for this study. Due to the above challenges, the needed information was manually-collected from the sampled companies' published annual reports. Secondary data was collected manually from the published annual reports and responses to the letter sent to all the company secretaries of relevant firms. Data on audit committee and data on audit committee attributes was therefore accessed from the published financial statements and unpublished documents from the company secretaries.

5.8 Models specification and variable measurement

5.8.1 Objective 1- To ascertain the prevalence of RAM

The prevalence of RAM as an earnings management tool was not well understood until about a decade ago. Graham *et al.*'s (2005) survey involving more than 400 executives document the widespread use of RAM; 80% of the CFO in their study stated that they would decrease expenditure on R&D, maintenance, and advertising, to meet an earnings target, and 55% of the participants were of the view that they would postpone a new project, even if such delay caused a small loss in firm value. In line with this survey, Roychowdhury (2006) documents large-sample evidence which suggest that managers avoid reporting annual losses or missing analyst forecasts by using sales manipulations, reducing discretionary expenditures, and manipulating production cost. All of these

activities are deviations from optimal operational decisions in order to bias earnings upward.

Identification of manipulation through real activities requires the empirical application of models. These models estimate the “normal” level of operational activities and, as such, their regression residuals represent the “abnormal” level, that is, they are proxies for management variables. In other words, the abnormal component of real activities is the difference between the actual observed value and the estimate obtained by applying the models (Gunny, 2005; Roychowdhury, 2006).

Following previous studies on RAM (Roychowdhury, 2006; Sanjaya & Saragih, 2012; Sun *et al.*, 2014), this study examines the following manipulation of real activities: sales manipulation (through reduction of cash flow from operation), discretionary expenses manipulation (by reducing discretionary expenditures), and production cost manipulation (through overproduction).

5.8.1.1 Sales manipulation

Computing abnormal operating cash flow derives sales manipulation. The manipulation could include offering more discounts, providing lenient credit terms as well as channel stuffing. Normal cash flow is estimated by regressing sales and change in sales on the annual operating cash flow using this model:

$$CFO_{i,t}/TA_{i,t-1} = \alpha (1/TA_{i,t-1}) + \beta_1(SL_{i,t}/TA_{i,t-1}) + \beta_2(\Delta SL_{i,t}/TA_{i,t-1}) + \varepsilon_{i,t} \dots\dots\dots (1)$$

Where:

$CFO_{i,t}$ = cash-flows from operations for firm i at period t.

$TA_{i,t-1}$ = the total assets for firm i at the end of the prior year.

$\alpha (1/TA_{i,t-1})$ = Scaled intercept

$SL_{i,t}$ = sales for firm i at year t (Current year sales).

$\Delta SL_{i,t}$ = the change in sales of firm i in year t. It is measured by sales in year t minus sales in year t-1 for firm i.

All the variables, including the intercept (constant term), are scaled by total assets for firm i at the beginning of year t ($TA_{i,t-1}$). To cater for the variations in the size of the firms to circumvent erroneous and unreliable correlation among the variables is the

reason for scaling by lagged total assets; this prevents the results from being misleading (Gunny, 2005; Roychowdhury, 2006).

The change in sales reveals the overall expansion of a firm's business operation. Firms with growth potential are more likely to have a more substantial change in sales, while declining firms will exhibit a lower change in sales.

After the estimation of parameters in equation (1), abnormal cash flow ($ab_cfo_{i,t}$) is the residual value of equation (1). The actual cashflow minus the 'normal' cashflow computed using the estimated coefficients from the corresponding industry-year model and the firm year's sales and lagged assets gives abnormal cashflow for every firm-year. More so, the signed value of abnormal cash flows from operations reduces with sales manipulation; a positive figure for $ab_cfo_{i,t}$ indicates low RAM while a negative residual indicates a high RAM (Roychowdhury, 2006).

5.8.1.2 Discretionary expenses manipulation

Discretionary expenses manipulation increases earnings because of the delay in recording these expenditures as expected of period costs. Companies that opportunistically cut discretionary expenses will have unusually lower discretionary expenses. Following Roychowdhury (2006), discretionary expenditure is the sum of R&D expenses, expenses from advertisements, and selling, general and administrative expenditures. The following model will determine the abnormal discretionary expenditures:

$$DISX_{i,t}/TA_{i,t-1} = \alpha (1/TA_{i,t-1}) + \beta_1 (SL_{i,t-1}/TA_{i,t-1}) + \varepsilon_{i,t} \dots\dots\dots (2)$$

Where:

$DISX_{i,t}$ = discretionary expenses of firm i in year t (current year discretionary expenses).

$SL_{i,t-1}$ = lagged sales (sales in the prior year).

The second measurement of RAM is discretionary expenses manipulation ($ab_disx_{i,t}$), which is the residual value of equation (2). Reducing discretionary expenditures leads to lower figures for abnormal discretionary expenses ($ab_disx_{i,t}$), while a high figure reflects low RAM.

5.8.1.3 Production cost manipulation

Production cost manipulation involves producing more units of goods than required to boost earnings since the cost of goods sold decreases with such activities. When overproduction occurs, there is a lower cost of goods sold (COGS) since it is reasonable to spread the fixed cost over the entire overproduction. The level of production costs will abnormally increase if managers manipulate earnings by overproduction. Similar to Roychowdhury (2006), the production cost is the summation of the cost of goods sold and the change in inventory. The regression model to compute abnormal production costs (ab_prod_{it}) is estimated, thus:

$$PROD_{i,t}/TA_{i,t-1} = \alpha (1/TA_{i,t-1}) + \beta_1 (SL_{i,t}/TA_{i,t-1}) + \beta_2 (\Delta SL_{i,t}/TA_{i,t-1}) + \beta_3 (\Delta SL_{i,t-1}/TA_{i,t-1}) + \varepsilon_{i,t} \dots\dots\dots (3)$$

Where:

$PROD_{i,t}$ = production costs of firm i at year t.

$\Delta SL_{i,t-1}$ = lagged change in sales, is sales in year t-1 minus sales in year t-2 for firm i
 $(\Delta SL_{i,t-1} = SL_{i,t-1} - SL_{i,t-2})$

The third measure of RAM is abnormal levels of production cost. The unstandardized residuals value, that is, abnormal production (ab_prod_{it}) in equation (3) is assumed to be the magnitude of RAM practices. The perception is that higher residuals result in higher overproduction to decrease COGS and inflate reported earnings. The residual is the deviation in production cost not explained by the variables.

The functioning of this formation eases the application to any industry, be it manufacturing or otherwise (Cupertino *et al.*, 2016). In the same vein, Roychowdhury (2006) and Dechow, Hutton, Kim, and Sloan (2012) explain that the inclusion of the scaled intercept $(1/TA_{i,t-1})$ by total assets allows the independent variable to be different from zero even when there are no sales for the period "t" or "t – 1". Gunny (2010) is of the view that analysis according to production costs – rather than by the COGS or changes in inventory – is an important consideration to avoid the confounding influence of accruals-based management. Also, a manager's decision to delay writing off a stock of obsolete products to reduce the cost of products sold is an abnormally low COGS. As a result, if COGS become the variable of analysis, the effects of accrual-based management could be erroneously classified as the effects of RAM. In contrast,

by using production costs, that is, COGS and difference in inventory – the impact of accruals would not be confused with that of real activities because there will be a compensating effect between the reduction in COGS and the difference in inventory (Cupertino *et al.*, 2016).

5.8.2 Objective 2: To examine the impact of audit committee attributes on RAM

The following panel regression model examines the relationship between audit committee attributes and RAM:

$$RAM_{i,t} = \beta_0 + \beta_1 ACIND_{i,t} + \beta_2 ACFLT_{i,t} + \beta_3 ACMTG_{i,t} + \beta_4 ACFDR_{i,t} + \beta_5 ACMDR_{i,t} + \beta_6 ACSZE_{i,t} + \beta_7 BDIND_{i,t} + \beta_8 ADQLT_{i,t} + \beta_9 FRMSZ_{i,t} + \beta_{10} FRMGW_{i,t} + \beta_{11} FRMLV_{i,t} + \varepsilon_{i,t} \dots\dots\dots (4)$$

Where:

RAM = RAM was measured as the summation of abnormal cash flows from operations, abnormal discretionary expenses, and abnormal production costs.

ACIND = audit committee independence was measured by a dichotomous variable which takes “0” if at least one member is an executive director and “1” if otherwise. This criterion is to reveal the absence of executive directors in the committee membership.

ACFLT = audit committee financial literacy is measured by a dichotomous variable which takes “1” if at least one member is an expert in accounting/finance and ‘0’ if otherwise.

ACMTG = audit committee meeting frequency was measured by the number of meetings held by the committee in a year.

ACFDR = audit committee female directorship was measured by the total number of female directors on the committee.

ACMDR = audit committee multiple directorship’s were measured by the number of director seats occupied on other company board or audit committee of other firms.

ACSZE = audit committee size is the entire membership of the committee, that is, the total number of members in the committee.

BDIND = board independence was measured by the proportion of non-executive director on the board

ADQLT = audit quality was measured by a dichotomous variable which takes “1” if audited by the “big four” and ‘0’ if otherwise.

FRMSZ = firm's size was measured by the natural log of total asset.

FRMGW = firm's growth was measured by the logarithm of the market to book ratio of the firm.

FRMLV = firm leverage was measured by the ratio of total debt to the total asset.

Following Krishnan and Visvanathan (2008), an audit committee member with accounting or financial expertise is a director who belongs to either of the following groups: Institute of Chartered Accountants of Nigeria (ICAN); Association of National Accountant of Nigeria (ANAN); tax consultants; principal or CFOs; controllers, principal or chief accounting officers. In Nigeria, the "big four" audit firms are Akintola Williams Deloitte, PricewaterhouseCoopers, Ernst & Young and KPMG. Studies (DeAngelo, 1981; Krishnamoorthy *et al.*, 2002; Skinner & Srinivasan, 2012) support and justify using big audit firms as a surrogate for a quality audit.

5.8.3 Objective 3: To examine the effect of corporate governance on RAM

The following panel regression model examines the effect of the corporate governance codes (in 2003 and 2011) on RAM:

$$RAM_{i,t} = \beta_0 + \beta_1 ICCGV_{i,t} + \beta_2 CCCGV_{i,t} + \beta_3 BDIND_{i,t} + \beta_4 ADQLT_{i,t} + \beta_5 FRMSZ_{i,t} + \beta_6 FRMGW_{i,t} + \beta_7 FRMLV_{i,t} + \varepsilon_{i,t} \dots\dots\dots (5)$$

where:

RAM = RAM was measured as the summation of abnormal cash flows from operations, abnormal discretionary expenses, and abnormal production costs.

ICCGV = This represents the introduction of the 2003 SEC code, and it takes the value '1' for the period after the presentation (2003-2010) and ‘0’ for the period before the introduction.

CCCGV = This represents the review of the SEC code in 2011, and it takes the value '1' for the period after the change (2011-2014) and '0' for the period before the change.

BDIND = board independence was measured by the proportion of non-executive director on the board

ADQLT = audit quality was measured by a dichotomous variable: If audited by the Big four '1' and '0' if otherwise.

FRMSZ = firm's size was measured by the natural log of total asset.

FRMGW = firm's growth was measured by the logarithm of the market to book ratio of the firm.

FRMLV = firm leverage was measured by the ratio of total debt to the total asset.

5.8.4 Control variables

The control variables in this study control the causal relationship in the model to get a complete empirical model (Sanjaya & Saragih, 2012). Previous research reveals that many variables might impact the process of governance and invariably affect the quality of earnings (Sanjaya & Saragih, 2012). This study examines the following control variables: leverage, size, and the firm's growth. Smith and Watts (1992) opined that executive discretion is stronger for high growth companies. Invariably this will make such companies choose mechanisms that will guard against these probable agency crises by adopting suitable and adequate corporate policies (Gaver & Gaver, 1993). Executives of highly leveraged companies have an inducement to indulge in income-boosting earnings management to evade debt covenants (DeFond & Jiambalvo, 1994). In the same vein, Baxter (2007) observed that companies with high leverage stand the risk of debt covenant constraints and therefore possess a higher propensity to manipulate their earnings. Most studies on RAM and the effectiveness of audit committee use firm's growth, leverage and size to control for factors like administrative costs, economies of scale, debt covenant, and bonus plan hypothesis (Inaam *et al.*, 2012; Klein, 2002a). Following these studies, this study included the firm's growth ratio, leverage ratio, and the firm's size as the control variables.

According to Baxter (2007), the board of directors has a significant influence on membership of the audit committee; it, to a large extent, determines the level of

independence, expertise, meeting frequency and even its responsibilities. Literature reveals that the more the meetings held by the board of directors, the more the occurrence of audit committee meetings as well (Baxter, 2007), and that the external auditor plays a vital task in ensuring sound audit committee attributes and quality financial reporting. Prominent auditors of high repute have considerable motivations to require their clients' boards to ensure the audit committee members' independence and expertise.

In line with Baxter (2007) and Sun *et al.* (2014), board independence and audit quality were included in equation (4) as a control variable. The inclusion will mitigate the concern that the observed association between audit committee characteristics and RAM may reflect a mechanical correlation between board independence, audit quality and RAM.

5.9 Techniques of data analysis

The choice of the right statistical methods depends on the nature of the data collected and the relationship between the methods and the research objectives. As a result, this study used what is relevant to the research questions and framework in tandem with the data collected. The data analysis techniques were two-fold. Firstly, the secondary data analysis used a panel regression technique and in the second stage, the survey, that is, the primary data obtained through administered questionnaires (Appendix 1), used a logistic regression technique. The triangulation of the two results may eventually reveal the strengths inherent in these models and reduce any weaknesses therein. Chapters Six and Eight presents the analyses of the models using the two techniques, that is, the panel regression and the logistic regression techniques. The subsequent subsections highlight what to expect in the next chapter.

5.9.1 Quantitative data analysis of secondary data

The study employed panel regression to analyse the secondary quantitative data. It used Pool, Static and Feasible generalised least square (FGLS) groupwise panel data models to examine the effect of audit committee attributes on RAM of listed firms on NSE. In testing and analysing the various formulated hypotheses, the study used the STATA statistical package as an analytical tool. The analysis comprised the following:

5.9.1.1 Pool model

The pooled model could be a usual starting point to group the data together and average out the individual-effects. Pool model assumes a similar slope and a similar intercept over all cross-sections. The model restrictively means that all coefficients (slopes and intercepts) are similar over time and cross-sections. The unrestricted model allows slope and intercepts coefficients to vary over time and cross-sections (Cameron & Trivedi, 2010).

5.9.1.2 Breusch Pagan Lagrange Multiplier (LM) test for random effects

The Breusch-Pagan LM test will test the most appropriate model between the pool and the random-effects model. The test is used to support the decision of using the random-effect model. This test comes immediately after estimating a random-effect model. It helps to determine the most appropriate model to rely on between the estimates of the random effect panel model and the pooled model.

5.9.1.3 Static panel analysis

Static panel data comprises mainly of fixed and random effects models. In the fixed effects approach, unobserved effects are the fixed parameters to be estimated and correlate with the exogenous variables. The observations of the exogenous variables are independent of the idiosyncratic error term for all cross-sections or periods. Baltagi (2005) notes that it is a proper specification if the focus is on a specific set of companies and inference is limited to the same set of companies. It is an appropriate specification for most accounting research (de Jager, 2008).

In a random-effects approach, the unobserved effects parameters are presumed to be random and are independent of the idiosyncratic error term. In addition, the total error and the observations of the exogenous variables are independent for all cross-sections or periods. The random-effects approach is suitable when making random draws from a large population (when the sample size is approaching infinity) to develop inferences about the population features.

However, an essential criterion for using static panel data is that all the variables to be included in the panel model must be stationary (Blundell & Bond, 1998). Therefore, to check for stationarity, the study conducted a panel unit root test and presents the results in Chapter Six. The analysis implies that all the variables are suitable for panel model estimation, and it minimises the tendency of yielding spurious regression results.

It is appropriate to choose between the different panel models. Firstly, it is usual to test for the presence of unobserved/individual-specific effects in the model. Fixed effects will use the Fischer (F) test while random effects will use the Breusch and Pagan's Lagrange Multiplier (LM) test (Park, 1967). Following Park (1967), the F-test resolves whether fixed effects or the pooled ordinary least squares better fits the panel data, whereas the LM-test determines between the random effects and pooled ordinary least squares.

a) The fixed effects (F-test) is a test for the null hypothesis that all individual intercepts are equal to zero in the regression model. More specifically, the result is an F-statistic, that quantifies by how much the goodness-of-fit has changed (Park, 1967).

b) The random effects (Breusch-Pagan LM test) is a test for the null hypothesis that all individual-specific variance components are zero, in the regression model.

5.9.1.4 Choosing between fixed effects and random effects (Hausman test)

The peculiarity between the covariance and error component in panel data analysis is crucial. It becomes appropriate to test for the existence of a correlation between the specific error term and the regressors. The Hausman test assesses the appropriateness of the random effect's estimator. Indeed, it tests for the null hypothesis that individual-specific effects are random. More specifically, a Hausman test checks if there are no systematic differences between the coefficient estimators of the two models (Baum, 2001). Under the null hypothesis, both estimators are consistent, and the estimators should display similar results, whereas under the alternative hypothesis, one estimator widely differs from the consistent estimator (Cameron & Trivedi, 2010). Considering this, the random effects estimator is consistent and more efficient than the fixed effects estimator under H_0 while only fixed effects remain consistent under the alternative.

The Hausman test compares the estimates from the two models to determine which is more consistent. If the probability (p)-value is significant (for example, <0.05) then use fixed effects, if not use random effects (Greene, 2008; Reyna, 2010). As stated earlier, it tests whether the unique errors (ui) correlates with the regressors, and the null hypothesis states that they are not.

5.9.2 Diagnostic tests

5.9.2.1 Model errors structure

The idiosyncratic errors assume to generate in a spherical manner and thus satisfied the classical ordinary least square assumptions about homoscedasticity and correlation. However, panel data structures often violate these standard assumptions about the error process (Podestà, 2002). So, it becomes imperative to check for these standard assumptions. The assumptions concerning homoskedasticity, cross-sectional correlation (contemporaneous correlation) and autocorrelation within units (serial correlation). These checks are of primary importance to avoid the findings being statistically spurious. Next is the diagnostic of the residuals of the individual fixed-effects model.

5.9.2.2 Testing for heteroskedasticity

In many panel datasets, the variance among cross-sectional units can differ. Among the reasons responsible for this phenomenon, it is possible to quote differences in the scale of the dependent variable between units. In consequence, it is appropriate to perform a modified Wald test to detect the existence of group-wise heteroskedasticity in the residuals of fixed-effect regression. Under the null hypothesis, the variance of the error is the same for all individual effect (Baum, 2001).

5.9.2.3 Testing for cross-sectional correlation

The impact of cross-sectional dependence on dynamic panel estimators is severe. Phillips and Sul (2003) show that ignoring cross-sectional dependence in the data during estimation is inappropriate. The decrease in estimation efficiency can become so large that, in fact, the pooled (panel) least-squares estimator may provide little gain over the single-equation ordinary least squares. This check is crucial to avoid the consequences that may occur to the result of the estimation. It implies pooling a population of cross-sectional data that are homogeneous but ignores cross-sectional dependence. The gains on efficiency in comparison with running individual ordinary least squares regressions for each cross-section may largely reduce.

It is essential also to note that a deviation from idiosyncratic errors could result from the contemporaneous correlation of errors across units. It is necessary to test for cross-sectional dependence in the error term using the Pesaran's test of cross-sectional independence.

5.9.2.4 Testing for autocorrelation within units

Serial correlation in linear panel-data models biases the standard errors and causes the results to be less efficient. It becomes imperative to identify serial correlation in the idiosyncratic error term in a panel-data model. There are numerous tests for serial correlation in panel-data models in the literature, and the analysis put forward by Wooldridge (2013) is attractive because it requires relatively few assumptions and is easy to implement.

According to Tsionas (2019), serial correlation is responsible for too optimistic standard errors. It is appropriate to check for this complication by performing a Wooldridge test where the null hypothesis assumes no first-order autocorrelation.

5.10 Summary

The methodology and research design structure are within the positivist paradigm, that is, a quantitative method using within-method triangulation, otherwise known as multimodel (Patton, 2002). Therefore, this study utilises triangulation, that is, methodological triangulation. Quantitative data were collected sequentially from both primary and secondary sources. Consistent with this view, this chapter demonstrated the process of variables measurement, empirical models' construction, population selection procedures and the preparation for the statistical analyses of secondary data.

The chapter explained the research approach adopted in this study. It presented the factors that have influenced the choice of these techniques and strategies. It discussed the procedures and methods utilised in the sampling and collection of the secondary data. Furthermore, the chapter addressed the sequence selected in both the data collection and analyses stages, that is, firstly, secondary data to be collected, analysed and secondly, the collection of the primary data and its analysis as well. In other words, the chapter provided a thorough discussion of the methodological research issues of the study and discussed the ways of addressing them. To recap, this research used the data of 74 (non-financial sector) firms listed on the NSE between 1999 and 2014 to investigate the relationship between RAM and audit committee attributes. The next chapter presents the secondary data analysis and discussion of the empirical findings therein.

CHAPTER SIX: SECONDARY DATA ANALYSIS AND DISCUSSION OF FINDINGS

6.1 Introduction

The purpose of this chapter is to present the results concerning audit committee attributes and RAM through performing statistical tests on a population of non-financial firms listed on NSE. Since managers may use several methods to manipulate earnings, three proxies for RAM were measured separately and further summed up to achieve a proxy for the dependent variable following previous research. As a result, the statistical analysis in this chapter comprises five empirical models, three corresponding to each RAM proxy, which are sales manipulation model, discretionary expenses manipulation model, and production costs manipulation model. The fourth model is the effects of audit committee attributes on RAM, while the fifth is a model on the effects of SEC corporate governance codes on RAM.

Analyses were conducted based on the measurement of RAM proxies. In the other two models, that is, that of the audit committee attributes and corporate governance codes, the study used the absolute terms of RAM proxies. The chapter discusses the descriptive statistics and univariate analysis findings, and further, runs the panel regression analyses to test the research hypotheses. It presents the results obtained and the interpretations thereon. Finally, it demonstrates the theoretical and practical implications of the impact of audit committee attributes on RAM. The next section presents the descriptive statistics and correlation results.

6.2 Descriptive statistics consideration

Collis and Hussey (2014) define statistics as an aid to decision making in the face of uncertainty by applying methods and theory to quantitative data. In terms of quantitative data analysis, it classifies statistics into two categories, namely, descriptive statistics and inferential statistics. Descriptive statistics summarise or present quantitative data, while inferential statistics draw a conclusion from a sample of quantitative data and then generalise it to the population (Collis & Hussey, 2014).

Before testing the research hypotheses through inferential statistics, the study presents descriptive statistics of the dataset in terms of central tendency and dispersion. That is, the analysis describes the mean, median and standard deviation of each variable.

The next section presents a descriptive statistical analysis for the data collected on audit committee attributes and RAM samples.

6.2.1 Descriptive statistics review result

There are several descriptive measures used in statistics, but for this research, only three measures, namely, mean, standard deviation and minimum/maximum, are presented, interpreted and discussed. Table 6.1 provides the descriptive statistics for the variables used in the models analysing the effect of audit committee attributes on RAM. Panel A shows the descriptive statistics for all the variables, while Panel B reports the frequency distribution of the dichotomous and discrete variables. The variables in Panel B includes audit committee independence (ACIND), audit committee financial literacy, (ACFLT), audit committee meeting frequency, (ACMTG), audit committee multiple directorships, (ACMDR), audit committee female directorship, (ACFDR), audit committee size, (ACSZE), audit quality, (ADQLT), introduction of corporate governance code 2003, (ICCGV), and review of corporate governance code 2011, (CCCGV). The frequency distributions give the analysis a more in-depth understanding.

Table 6.1: Descriptive statistics of the variables: Panel A

All variables					
Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
RAM	1036	0.026	0.460	-3.676	1.518
AB_CFO	1036	-0.006	0.166	-0.616	0.490
AB_DISX	1036	-0.005	0.151	-0.330	0.659
AB_PROD	1036	0.015	0.293	-3.148	1.321
ACIND	1036	0.469	0.499	0	1
ACFLT	1036	0.812	0.391	0	1
ACMTG	1036	3.249	0.813	1	7
ACMDR	1036	0.896	0.786	0	5
ACFDR	1036	0.451	0.611	0	3
ACSZE	1036	5.291	0.977	2	7
ICCGV	1036	0.857	0.350	0	1
CCCGV	1036	0.286	0.452	0	1
BDIND	1036	0.765	0.136	0.2	1
ADQLT	1036	0.645	0.479	0	1
FRMSZ	1036	22.164	1.933	17.597	27.615
FRMGW	1036	1.364	1.398	-9.156	7.763
FRMLV	1036	0.765	1.074	0.025	16.573

Table 6.1: (continued) Descriptive statistics of the variables: Panel B

Panel B: Frequency distribution of dummy and discrete variables																		
	ACIND	%	ACFLT	%	ACMTG	%	ACMDR	%	ACFDR	%	ACSZE	%	ICCGV	%	CCCGV	%	ADQLT	%
0	550	53.1	195	18.8	0	0.0	330	31.9	630	60.8	0	0.0	148	14.3	740	71.4	368	35.5
1	486	46.9	841	81.2	5	0.5	523	50.5	349	33.7	0	0.0	888	85.7	296	28.6	668	64.5
2					164	15.8	152	14.7	53	5.1	6	0.6						
3					494	47.7	25	2.4	4	0.4	9	0.9						
4					320	30.9	4	0.4			323	31.2						
5					48	4.6	2	0.2			39	3.8						
6					4	0.4					658	63.5						
7					1	0.1					1	0.1						
	1036	100	1036	100	1036	100	1036	100	1036	100	1036	100	1036	100	1036	100	1036	100

6.2.1.1 Audit committee variables involved in the descriptive statistics

The audit committee variables are independence (ACIND) measured by a dichotomous variable to represent non-involvement of executive directors in the committee membership as follows: if at least one member is an executive director “0” and “1” if otherwise; a dichotomous variable measures financial literacy (ACFLT): if at least one member is an expert in accounting/finance “1” and ‘0’ if otherwise; meeting frequency (ACMTG) measures the number of meetings held by the committee in a year; multiple directorships (ACMDR) measures the number of director seats occupied on other company board or audit committee of other firms; female directorship (ACFDR) measures the total number of female directors on the committee, and the entire membership of the committee measures size (ACSZE), that is, the composition of members in the committee.

6.2.1.2 The audit committee attributes’ descriptive statistics

This section discusses the descriptive statistics of all the audit committee variables mentioned above. The audit committee independence (ACIND) is measured by a dichotomous variable which takes “0” if at least one member is an executive director and “1” if otherwise. In Panel A of Table 6.1, the mean value of ACIND is 0.47. Panel B gives a clearer picture as it reveals that 46.9% of the firms involved in this study have the audit committee members entirely composed of non-executive directors during the years under review. For the proportion of audit committee members with financial literacy (ACFLT), also measured by a dichotomous variable, with an average of 0.81, Panel B confirms this by showing that 81.2% of the sampled firms have in the audit committee, financially literate members.

The audit committees’ meeting frequency (ACMTG) is between one and seven during the year, with an average of approximately three meetings per year, Panel B makes it more precise when it reveals that audit committees that met three times are 47.7% while 30.9% met four times. The two extremes are both less than one per cent, indicating that one meeting has 0.5%, and seven meetings have 0.1%. The multiple directorships of audit committee members (ACMDR) range between zero and five with an average of 0.90; Panel B reveals that audit committee members with no directorship seat in other firms are 31.9% while those with one directorship seat in other firms have the most significant percentage of about 50.5%. It implies that between two and five multiple

directorships account for 17.6%, out of this, those with two directorship seats are about 14.7% while the extreme, which is five seats, has just 0.2%.

Female membership or directorship (ACFDR) has a range between zero and three with an average of 0.45 (Panel A). Panel B shows that, the audit committees with no female membership account for a high percentage of 60.8% while those with at least one female member are 33.7%. The upper range of the extremes, which is three female directorships accounts for a mere 0.4%. This statistic is an indication of the seriousness of the gender disparity in the audit committee of firms listed on the NSE. The sizes of the audit committees (ACSZE) ranged between two and seven members with an average of approximately five members. In Panel B, 98.5% (31.2% + 3.8 + 63.5%) of the firms have an audit committee whose members are between four and six. The two extremes, two and seven membership size, are 0.6% and 0.1% respectively.

6.2.1.3 Corporate governance codes' variables involved in the descriptive statistics

The variables of the corporate governance codes are a dichotomous variable which measures introduction of the SEC code in 2003 (ICCGV): coded '1' for period after the introduction (2003-2010) and '0' for period before the introduction; and measures the review of the SEC code in 2011 (CCCGV) by a dichotomous variable: coded '1' for period after the change (2011-2014) and '0' for period before the change.

6.2.1.4 Corporate governance codes descriptive statistics discussions

The introduction of the SEC code in 2003 (ICCGV) reveals a mean value of 0.86 and a standard deviation of 0.35 in Panel A, and it corroborates Panel B, which indicates 85.7% for the period after the introduction. There are more observations for the period after the introduction than for the period before the introduction as observed. The contrary position is in the descriptive statistics of the review of the SEC code in 2011 (CCCGV). Panel A has a mean value of 0.29 and a standard deviation of 0.45, while Panel B confirms this result, indicating that 28.6% of the observations fall within the period after the review of the SEC code in 2011 and that 71.4% is for the period before the change.

6.2.1.5 Control variables descriptive statistics discussions

This section discusses the descriptive statistics of the control variables. Audit quality (ADQLT), is measured by a dichotomous variable with a mean of 0.65 and standard deviation of 0.48; Panel B reveals that 64.5% of the sampled firms are audited by the

‘Big 4’ audit firms while “non-Big 4” firms audit the remaining 35.5 %. Board independence (BDIND), represents the proportion of non-executive director on the board. It has a mean value of 0.765, and a standard deviation of 0.136. This statistic implies that 76.5% of the sampled firms’ boards of directors are composed of more non-executive directors than the executive directors. This confirms the independence of the boards of directors of most of the sampled firms. Firm size (FRMSZ) has a mean value of 22.16, and it indicates that the average total assets of most of the firms are in the range of twenty-two billion Nairas. It shows that the size of the sampled firms is significant. The standard deviation was 1.93. A large firm may engage in income-increasing earnings manipulation to mitigate political pressure (Soliman, 2019; Watts & Zimmerman, 1990).

The firm growth (FRMGW) has a mean value of 1.36, and a standard deviation of 1.40. The positive value of the mean is an indication that most of the sampled firms have a higher market value compared to their book value, an indication of growth. Firm leverage (FRMLV), which captures the likelihood of debt covenant violation by management in the process of manipulating its real activities, has a mean value of 0.77 and a standard deviation of 1.07. This statistic is an indication of a higher leverage ratio of most of the sampled firms. In the view of Smith *et al.* (2006), the higher the leverage ratio, the greater the risk of breaching some debt covenants. Baxter (2007), in the same vein, revealed that firms with high leverage are exposed to the risk of debt covenant constraints and are therefore exposed to a higher propensity to manipulate earnings. A high leverage position is not a good situation for any firm as it could also lead to a higher cost of debt financing (Piot & Janin, 2007).

6.2.2 Correlation matrices results

Tables 6.2 and 6.3 shows Pearson and Spearman correlation matrices coefficients between audit committee attributes, corporate governance variables and the control variables. The correlation amongst the variables is generally relatively low. The two correlation matrices bear a significant resemblance. The correlation matrices (in Tables 6.2 and 6.3) above show the relationship between all pairs of independent variables in the study model. The Pearson correlation result reveals that audit committee independence (ACIND) inversely correlates significantly with audit quality (ADQLT) by -0.175, which indicates that both variables are a substitute for each other. This result

is a replica of that in Spearman correlation matrix table, that is, -0.174, which is also significant.

Table 6.2: Pearson correlation matrix

	acind	acflt	acmtg	acfdr	acmdr	acsze	iccg	cccg	bdind	adq	frmsz	frmgw	frmlv
acind	1.000												
acflt	-0.0669*	1.000											
acmtg	-0.1025*	0.2570*	1.000										
acfdr	-0.010	0.1734*	0.1103*	1.000									
acmdr	0.058	0.3323*	0.2677*	0.0899*	1.000								
acsze	-0.0955*	0.2318*	0.2958*	0.0685*	0.4286*	1.000							
iccg	-0.058	0.2762*	0.0844*	0.0981*	0.1250*	0.045	1.000						
cccg	-0.008	0.2717*	0.1559*	0.0790*	0.1411*	0.0722*	0.2582*	1.000					
bdind	0.4613*	-0.1164*	-0.026	-0.1000*	-0.046	0.029	-0.0612*	-0.0763*	1.000				
adq	-0.1753*	0.2257*	0.1903*	0.0756*	0.2380*	0.2374*	-0.021	-0.0842*	-0.1394*	1.000			
frmsz	-0.1001*	0.4446*	0.3377*	0.0652*	0.3924*	0.4441*	0.1807*	0.2374*	-0.0763*	0.3815*	1.000		
frmgw	-0.014	0.1409*	0.0830*	0.022	0.1226*	0.1915*	0.0999*	-0.022	0.000	0.1692*	0.2026*	1.000	
frmlv	-0.059	-0.1038*	-0.1036*	-0.055	-0.0982*	-0.0974*	0.028	0.027	-0.008	-0.1051*	-0.1809*	-0.1967*	1.000

* denotes significance at 5% level

Table 6.3: Spearman correlation matrix

	acind	acflt	acmtg	acfdr	acmdr	acsze	iccg	cccg	bdind	adq	frmsz	frmgw	frmlv
acind	1.000												
acflt	-0.0650*	1.000											
acmtg	-0.1030*	0.2596*	1.000										
acfdr	0.004	0.1855*	0.0876*	1.000									
acmdr	0.033	0.3575*	0.2900*	0.1038*	1.000								
acsze	-0.0923*	0.2210*	0.2997*	0.0629*	0.4602*	1.000							
iccg	-0.056	0.2727*	0.0791*	0.0891*	0.1295*	0.042	1.000						
cccg	-0.007	0.2711*	0.1481*	0.0617*	0.1526*	0.0715*	0.2575*	1.000					
bdind	0.4982*	-0.1476*	-0.059	-0.0791*	-0.1000*	0.007	-0.0939*	-0.1048*	1.000				
adq	-0.1741*	0.2236*	0.1912*	0.0839*	0.2489*	0.2244*	-0.024	-0.0851*	-0.1505*	1.000			
frmsz	-0.1128*	0.4428*	0.3606*	0.0624*	0.3873*	0.4403*	0.1782*	0.2234*	-0.0732*	0.3747*	1.000		
frmgw	-0.004	0.1343*	0.0957*	0.007	0.0848*	0.1491*	0.1291*	-0.0677*	0.041	0.1332*	0.2005*	1.000	
frmlv	-0.0843*	-0.0662*	-0.1136*	0.020	0.043	-0.036	0.002	-0.0765*	-0.033	0.015	-0.026	0.039	1.000

* denotes significance at 5% level

The same ACIND showed a positive and significant correlation with BDIND, which implies that a firm which has an independent board may also have an independent audit committee 0.46 (Pearson) and 0.50 (Spearman). Audit committee size (ACSZE) also has a negatively significant correlation with audit committee independence (ACIND). It implies that a reduction in the audit committee size (ACSZE) translates to an increase in the audit committee independence (ACIND); the coefficients from both tables are -0.096 (Pearson) and -0.092 (Spearman). Audit committee size in the descriptive analysis reveals that 63.5% of the sampled firms have a composition of precisely six members.

The correlation matrix indicates that there is no presence of multicollinearity amongst the variables since no correlation coefficient is higher than 0.9. All the coefficients are lower than 0.5. Gujarati and Porter (2009), and Hair, Black, Babin, and Anderson (2010) both reported 0.8 as the threshold to determine when multicollinearity becomes harmful to the regression analysis and make the reliability, or the positive power, of the model reduced. All variables correlate at less than 0.55 (Myers, 1990). The highest correlation coefficient is 0.461 (Pearson), 0.498 (Spearman), which is a significant positive correlation between ACIND and BDIND from both tables. It is worth mentioning that the correlation matrix has been considered as a limited analysis because it ignores the interrelationships among the variables. As a correlation analysis is not best suited for estimating causality between variables, the next section presents the regression assumption test, which precedes the regression analysis of the secondary data.

6.3 Inferential statistics results

This section deals with the inferential analysis of the data; this is because generalisation is not realisable with only descriptive results. The next subsection deals with the panel unit root tests.

6.3.1 Panel unit root tests

It is appropriate to determine the order of integration of the variables in the model using both the Harris-Tzavalis (HT) and Levin-Lin-Chu (LL) panel unit root tests. The rationale for using the two tests is to confirm the levels of consistency in the panel unit root tests. The unit root tests ensure that all the variables are made stationary before the static panel data estimation. An essential reason for using static panel data is that all

variables to be included in the panel model must be stationary (Blundell & Bond, 1998); this guides against spurious results and also affirms the validity of the estimated parameter estimates from the estimated panel model.

Table 6.4: Levin Lin Chu (LL) and Harris Tzavalis (HT) panel unit root tests

Variable	Levin-Lin-Chu (LLC)		Harris- Tzavalis (HT)	
	Unadjusted statistics	Order of integration	T-statistics	Order of integration
RAM	-19.457***	I(0)	-19.483***	I(0)
ACIND	-10.794	I(1)	-6.296***	I(1)
ACFLT	-2.294	I(1)	-2.624***	I(1)
ACMTG	-21.721***	I(0)	-30.979***	I(0)
ACMDR	-8.290	I(1)	-3.268***	I(1)
ACFDR	-8.504	I(1)	-3.551***	I(1)
ACSZE	-10.516	I(1)	-10.433***	I(0)
BDIND	-12.896***	I(0)	-3.576***	I(1)
ADQLT	-4.050	I(0)	1.268	I(1)
ICCGV	-17.734***	I(0)	-12.597***	I(0)
CCCGV	-4.492	I(1)	4.799	I(1)
FRMSZ	-10.391***	I(0)	2.784	I(0)
FRMGW	-16.365***	I(0)	-20.461***	I(0)
FRMLV	-14.628***	I(0)	3.310	I(0)

***, ** & * denotes significance at 1%, 5% & 10% respectively

Table 6.4 shows that both the LLC and HT methods of panel unit root test show that all the variables are stationary at levels of first difference. The result implies that all the variables are suitable for panel model estimation, and it minimises the tendency of yielding spurious regression results. After the unit root test, the panel model's estimation can commence.

6.3.2 Objective 1: Ascertainment of the prevalence of RAM

This current research uses three different measures of RAM, namely, sales manipulation, discretionary expenses manipulation and production cost manipulation. Each type of manipulation is measured separately using Roychowdhury's (2006) models discussed in Chapter Five. These models predict normal earnings which are then subtracted from actual reported earnings to find out the amounts of managed earnings (that is, residuals). Afterwards, absolute values of residuals compute a composite value of RAM proxy.

6.3.2.1 Analysis of results on RAM prevalence

Table 6.5 shows the correlations matrix between the three models of RAM. The upper matrix represents the Spearman correlation matrix, while the lower part represents the Pearson correlation matrix.

Table 6.5: Pearson and Spearman correlation matrices

	ab_cfo	ab_disx	ab_prod
ab_cfo	1.000	0.074*	-0.341*
ab_disx	0.014	1.000	-0.626*
ab_prod	-0.260*	-0.562*	1.000

* denotes significance at 5% level

ab_cfo, ab_disx, and ab_prod denotes sales, discretionary expenses and production cost manipulations

Table 6.5 reports the correlations for the entire sample of 1,036 firm-year observations over the period 2001-2014. The correlation matrix significance is recognised at the five per cent level. Consistent with prior studies, the correlation coefficients between abnormal discretionary expenses and abnormal production cost in both matrices are strongly negative. The Pearson correlation is -0.56 while the Spearman correlation is 0.63. It may indicate that managers engage in activities leading to abnormally high production cost while also reducing discretionary expenses, all with the sole desire of reporting high earnings, which further confirms the findings that listed firms in Nigeria engaged more in income-increasing RAM. There is a similar significant negative relationship between sales manipulation and production cost manipulation.

The Pearson and Spearman correlation coefficients between abnormal production cost and abnormal sales are -0.26, and -0.34, respectively. It may reveal that managers engage in sales manipulation while at the same time engaging in production cost manipulation. Overproduction will lead to an increase in goods available for sale, which will necessitate credit sales or granting of sales discounts which invariably leads to a reduction in the current period cash flow. The correlation coefficient between sales manipulation and discretionary expenses manipulation is positive in both matrices. The Pearson and Spearman correlation coefficients are one per cent and seven per cent respectively, though it is strongly positive in Spearman correlation. It is probably because, in an income-increasing manipulation, both models move in the same direction. This finding is similar to the findings in Roychowdhury (2006).

6.3.2.2 The RAM component models' estimates

Table 6.6 lists the results for the three models' equations stated in Chapter Five. The coefficient signs are similar to the prior studies of Roychowdhury (2006), Gunny

(2010), and Bjurman and Weihagen (2013). In the sales manipulation model, the only coefficient that is not significant is the change in the current sales level ($\Delta SL/TA_{t-1}$). It indicates a low probability that change in the current sales affects cash flow from operations significantly.

Table 6.6: RAM models' estimates

	1	2	3
Dependent Variables	ab cfo	ab disx	ab prod
$1/TA_{t-1}$	0.084***	0.172***	-0.132***
SL/TA_{t-1}	0.024***		0.852***
SL_{t-1}/TA_{it-1}		0.060***	
$\Delta SL/TA_{t-1}$	0.004		0.060
$\Delta SL_{t-1}/TA_{it-1}$			0.069
Observations	1036	1036	1036
F	3.620	12.010	435.460
Prob>F	0.032	0.001	0.000
r ²	0.020	0.080	0.890
r ² _a	0.020	0.080	0.890

***, ** and * denotes significance at 1%, 5% & 10% respectively

ab_cfo, *ab_disx*, and *ab_prod* denotes sales, discretionary expenses and production cost manipulations

Prior research indicates similar results about the significance of the discussed coefficient (Aflatooni & Mokarami, 2013; Cupertino *et al.*, 2016). The estimated firm-year variables are winsorised at 99% (from both ends) to mitigate observed outliers' effects. Other studies that also winsorise are 99% in Roychowdhury (2004), 99% in Zang (2012), 95% in Chen *et al.* (2014), 95% in Wang (2015), 98.5% in Cupertino *et al.* (2016).

6.3.2.3 Descriptive statistics of RAM models' residuals

Table 6.7 shows descriptive statistics for the three metrics of manipulation *vis-à-vis* sales manipulation (*ab_cfo*), discretionary expenses manipulation (*ab_disx*), and production cost manipulation (*ab_prod*).

Table 6.7: RAM measurement

Variable	Observations	Mean	Standard deviation.	Minimum	Maximum
RAM	1036	0.026	0.460	-3.676	1.518
<i>ab_cfo</i>	1036	-0.006	0.166	-0.616	0.490
<i>ab_disx</i>	1036	-0.005	0.151	-0.330	0.659
<i>ab_prod</i>	1036	0.015	0.293	-3.148	1.321

ab_cfo, *ab_disx*, and *ab_prod* denotes sales, discretionary expenses and production cost manipulations

Nigerian prior studies on RAM do not produce the descriptive statistics on the three models. The results in Table 6.7 reveal the prevalence of manipulation through real

activities which generates abnormally low operational cash flow, abnormally low discretionary costs, and abnormally high production costs. It indicates that the sampled firms during the period under review engage more in income increasing RAM. It is important to state that manipulations of earnings could have either upwards or downwards directions. Income-increasing and income-decreasing manipulation decisions arise due to managers' earnings targets (Idris, 2012). This result is similar to that of Cohen and Zarowin (2010), and Cohen *et al.* (2008). There are studies on RAM in Nigeria by Hassan and Ibrahim (2014), Okolie (2014b), Okolie *et al.* (2014), and Bello *et al.* (2015), but they fail to reveal the direction of RAM prevalence.

6.3.2.4 Estimation of sales manipulation model

The sales manipulation model estimates in Column '1' of Table 6.6 is an indication of the prevalence of sales manipulations with an income-increasing motive by Nigerian listed companies. The current sales level exerts significant effects on current cash flow from operations, while the change in the current sales level has no significant effect. After estimating the parameters in Equation 1, abnormal cash flow (*ab_cfo*), representing sales manipulation is a measure of the residual value of Equation 1. Since the signed value of abnormal cash flows from operations decreases with sales manipulation, a negative value of the model estimate indicates high sales manipulations. With the value of the R square of 0.02, both current sales and current change in sales level account for about 2% systemic change in cash flow from operations in the Nigerian listed companies.

The negative mean value of the residual as revealed in Table 6.7 is an indication that there is an income-increasing sales manipulation in Nigerian listed companies. This finding is in agreement with Bello *et al.* (2015), which covers six years (2008-2013), concentrating on 20 listed manufacturing firms in Nigeria. Okolie (2014b), using 342 firm-year observations of firms listed on the NSE during the period between 2006 and 2011, also records a dominant (heavy) presence of cash-based earnings management (RAM) among the sampled firms. Therefore, this further suggests that listed companies in Nigeria are engaging in such acts as could promote sales manipulation such as using price discounts to boost sales in order to reduce margins because as margins decline, the cash inflow per sale decreases while the sales volume increases.

Likewise, they may be offering more lenient credit terms like lower interest rates (for example, zero per cent financing) which reduces cash inflow and leads to a high sales volume. All these are activities that promote sales manipulations which are an indication of RAM in the Nigerian listed companies. The residual of the equation is estimated, then multiplied by minus one before included in the RAM measurement.

6.3.2.5 Estimation of discretionary expenditure model

The next aspect of RAM is discretionary expenses manipulation. Equation 2 in the methodology represents the model. The result of the model estimation is in Column '2' Table 6.6. The result in Table 6.6 is an indication of the prevalence of income-increasing manipulation through abnormal discretionary expenses in Nigerian listed companies. The previous sales or sales of the preceding year are statistically significant at one per cent level; it is, therefore, an important determining factor of discretionary expenses in these companies. The model is also statistically significant, meaning the independent variables in the model improve the model fit, and they are jointly significant in explaining the variability in the dependent variables. The R square value is 0.08. The negative mean value of the residual, as revealed in the summary Table 6.7, is an indication that there is a high level of discretionary expenses manipulations by Nigerian listed companies.

The residual of the estimated model, as revealed in Table 6.7, is the abnormal discretionary expenses, the second measurement of RAM in the companies listed on NSE, as examined in this study. The results suggest that the sampled companies are also engaging in practices that reduce discretionary expenditures to increase earnings. These discretionary expenses are usually period costs, as when a firm incurs these costs it accounts for them in the same period, thus reducing them will bring down the period cost while increasing the period earnings. The estimation of the equation generates residuals, the residuals are multiplied by minus one before adding it to the RAM measurement.

6.3.2.6 Estimation of production cost manipulation model

The third and the last measurement of RAM in this study is the production cost manipulation. The model's regression result for the firms' production costs is in column 3 of Table 6.6. The result describes the production cost relationship with sales variables. The critical reason for the model estimation like others is to ascertain the prevalence of

the production cost manipulation, which is the third measurement of RAM in the listed companies in Nigeria. The results show that the current sales level, change in current sales level and change in the preceding year's sales level are essential determinants of production cost. The coefficients of these variables pass the individual test of statistical significance.

The R square of the model is 0.89. It indicates that the current sales level, change in current sales level and change in the preceding year's sales level all explain 89% systemic variations in the production cost of the firms. The F-statistics also shows that the production cost manipulation model is statistically significant. The positive mean value of the residual as revealed in the summary Table 6.7 is an indication that there is an income-increasing manipulation of earnings through abnormal production cost in Nigerian listed companies.

The implication is that the sampled firms during the period under review are engaging in overproduction to boost earnings. The equation estimation also generates residuals that are added-up to the RAM measurement. The production cost manipulation model residual is not multiplied by minus one because the high values of the residual already indicated a high level of manipulation by production cost.

It is essential to generate the composite RAM measure as this is required as the dependent variable in the models for objective two and three. The result in Table 6.7, with a mean value of 0.0259, confirms the income-increasing nature of RAM prevalence among companies listed on the NSE during the observation period. Therefore, an aggregate measure of RAM following Roychowdhury (2006), Cohen and Zarowin (2010), Sun *et al.* (2014), was generated. It was computed by summing up the three RAM measures to give a composite RAM value which is the dependent variable in model 4 and 5.

In concluding this section, the assessment of the prevalence of RAM in the sampled listed companies appears to be income-increasing manipulations. The signed values of the residuals in the three models (sales manipulation, discretionary expenses manipulations, and production cost manipulations) as evidenced in Table 6.7 are all indication of income-increasing RAM common among the listed sampled firms for the period under review. The next section presents the results of the inferential statistics using panel regression models.

6.3.3 Objective 2: Impact of audit committee attributes on RAM

This section determines the impact of audit committee attributes on RAM. It estimates the following panel data regression models, the Pool, Static and the FGLS group-wise panel data models, to examine the effect of audit committee attributes (independence, financial literacy, meeting frequency, female directorships, multiple directorships and size) on RAM of listed firms on NSE. Chapter Five discussed the choice of FGLS group-wise along with Panel-Corrected Standard Error (PCSE) panel-data models.

6.3.3.1 Static panel analysis

This section presents the static panel results of the effect of audit committee attributes and corporate governance on RAM, respectively. The section comprises the estimates of the pool regression model, random and fixed-effect models. It also consists of the results of the Breusch-Pagan LM test and Hausman test, which aided the choice of the most appropriate model between the pool and random-effects as well as between fixed-effects and random-effects models respectively.

6.3.3.2 Pool model

The pooled model is usually a natural starting point in panel data regression analysis, where pooling the data together averages out the individual-effects.

6.3.3.3 The fixed effects (F-test)

In the F-test test for the null hypothesis, all individual intercepts are equal to zero in the regression model. More specifically, the result is an F-statistic that quantifies by how much the goodness-of-fit has changed (Park, 1967). The F-test reveals whether the p-value is significant enough (at one per cent level of significance) to reject the null hypothesis. If there is a significant fixed effect, and it favours the fixed-effects model to the Pooled OLS model.

The random effects (Breusch-Pagan LM) test, is a test for the null hypothesis that all individual-specific variance components are zero in the regression model. The model assumes a similar slope and a similar intercept over all cross-sections. It becomes evident that relying on the estimates of the random-effect panel model rather than the pooled model is appropriate.

The results of Breusch-Pagan LM test presented in Table 6.8 indicates that a random model is more appropriate than a pool model. The OLS regression result is headed Model 1 in Table 6.8, while that of the random-effects is headed Model 2 in the same table. The p-value of the Breusch-Pagan test is significant at one per cent leading to the rejection of the null hypothesis implying that the model parameters, that is, constant and slope coefficients vary across individual firms; as such the result favours individual-effects. The result portrayed that there is cross-sectional dependence in the estimated model. Thus, it is not appropriate to pool the data and therefore, a random model is more appropriate.

6.3.3.4 Hausman test: choosing between fixed-effects and random-effects

After establishing the presence of individual and time effects in the residuals, checking on the relationship between the individual-specific component and the regressors becomes necessary. This is necessary is to find the optimal model for the datasets between the random-effects model and the fixed-effects model. The Hausman-test chooses between fixed and random effects specifications. It compares the two estimators under the null hypothesis of no significant difference (Hausman, 1978). More specifically, a Hausman test checks if there are no systematic differences between the coefficient estimators of the two models (Baum, 2001). It tests whether the unique errors (ui) correlate with the regressors, and the null hypothesis is that they are not.

The results of the Hausman test shown in Table 6.8 gives a chi-square value of 39.07 with a probability level of 0.000. It leads to rejecting the null hypothesis at any statistical confidence level. A robust Hausman test with sigmamore option indicates the robustness of choice. The result is not too different from the usual Hausman test. It gives a chi-square value of 24.78 with a probability level of 0.0098 as shown in Table 6.8. So, there does exist fixed-effects, and the regression model should be an individual fixed-effect model. Therefore, the study concludes that the fixed-effect is more appropriate than random-effects.

Table 6.8 presents the fixed-effects regression results under Model 3. The diagnostic tests that follow in the next section reveals other complications arising from using panel data structures.

Table 6.8: Panel data regression results of the effects of audit committee attributes on RAM

	Model 1 OLS	Model 2 Random-effects	Model 3 Fixed-effects
ACIND	-0.098*** (0.031)	0.035 (0.027)	0.051* (0.027)
ACFLT	0.015 (0.039)	-0.018 (0.033)	-0.019 (0.034)
ACMTG	-0.062*** (0.018)	-0.008 (0.015)	-0.003 (0.016)
ACFDR	-0.061*** (0.022)	0.013 (0.021)	0.023 (0.021)
ACMDR	0.010 (0.020)	-0.005 (0.022)	-0.005 (0.024)
ACSZE	-0.006 (0.016)	-0.017 (0.023)	-0.021 (0.025)
BDIND	0.271** (0.112)	0.004 (0.106)	-0.022 (0.109)
ADQLT	0.014 (0.031)	-0.057* (0.032)	-0.067** (0.034)
FRMLV	-0.150*** (0.013)	-0.166*** (0.012)	-0.169*** (0.012)
FRMSZ	0.018** (0.009)	0.018 (0.013)	0.016 (0.014)
FRMGW	-0.063*** (0.010)	-0.020** (0.008)	-0.015* (0.008)
CONSTANT	-0.123 (0.191)	-0.100 (0.267)	-0.034 (0.302)
Observations	1036	1036	1036
F	17.030		21.710
P>F	0.000		0.000
r ²	0.160		0.200
r ² _a	0.150		0.090
F-test			18.050
Prob>F			0.000
Mean VIF	1.30		
<i>Linktest</i>	_hatsq=-0.250 P> t = 0.001		
<i>Xttest0</i>	chibar2(01)=1669.840: P>chibar2 = 0.000		
<i>Hausman</i>	chi2(11)= 39.070: P>chi2 = 0.000		
<i>Robust Hausman</i>	chi2(11)= 24.78: P>chi2 = 0.000		
<i>Xttest3</i>	chi2(74)=3253.21: P>chi2 = 0.000		
<i>Xtcsd</i>	2.574: Pr =0.010 Av abs val= 0.251		
<i>xtserial</i>	F(1,73)=8.589; P>F = 0.005		

Standard errors in parentheses

***, ** and * denotes significance at 1%, 5% & 10% respectively

6.3.3.5 Diagnostic tests

6.3.3.6 Model errors structure

It is an assumption that the idiosyncratic errors were generated in a spherical manner and thus satisfied the classical OLS assumptions about homoscedasticity and

correlation. However, panel data structures often violate these standard assumptions about the error process (Podestà, 2002). Therefore, it is necessary to check for the assumptions concerning homoscedasticity, cross-sectional correlation (contemporaneous correlation) and autocorrelation within units (serial correlation). It is essential to avoid findings being statistically spurious.

6.3.3.7 Testing for heteroscedasticity

The homoscedasticity assumption states that the variance of each residual should be constant. Otherwise, there would be what is called heteroscedasticity or unequal variance (Brooks, 2019). Gujarati and Porter (2009) state that the presence of heteroscedasticity jeopardises the reliability of the hypothesis testing, thereby causing the possibility of arriving at a misleading conclusion. This is because heteroscedasticity biases the variances of OLS estimators and consequently the estimators are no longer efficient.

A modified Wald test detects the existence of group-wise heteroscedasticity in the residuals of the fixed-effect regression model. Under the null hypothesis, the variance of the error is the same for all individuals. The result, as evidenced in Table 6.8, reveals that the overall statistic $\chi^2(N)$ has a p-value = 0.0000. It leads to rejecting the null hypothesis at any significance level. Thus, heteroscedasticity is present.

6.3.3.8 Testing for cross-sectional correlation

The impact of cross-sectional dependence on dynamic panel estimators is critical. Phillips and Sul (2003) show that disregarding cross-sectional dependence in the data during estimation has consequences. The decline in estimation efficiency may be as significant that, in fact, the pooled (panel) least-squares estimator may provide little gain over the single-equation ordinary least squares. The result of the test is meaningful to the regression estimates. It implies that if one pool a population of cross-sections that are homogeneous in the slope parameters but ignores cross-sectional dependence, then the desired efficiency gains, compared with running individual ordinary least-squares regressions for each cross-section, may weaken significantly.

6.3.3.9 Testing for autocorrelation within units

Serial correlation in linear panel-data models biases the standard errors and causes the results to be less efficient. Identifying the serial correlation in the idiosyncratic error term in a panel-data model becomes essential. Several tests for serial correlation in

panel-data models exist and the test put forward by Woodridge (2013) becomes attractive because it requires few assumptions, and it is easy to implement. The Wooldridge test checks for this complication where the null hypothesis assumes no first-order autocorrelation. The p-value (<0.01 level) is small enough to reject the null hypothesis and validate the presence of autocorrelation of the first order. This result is in Table 6.8.

6.3.3.10 Test for multicollinearity

There are no perfect linear relationships between explanatory variables. This implies that explanatory variables should not correlate too highly because if this happens, the estimated parameter become unreliable, and the predictors become less critical (Field, 2009). Therefore, it is essential to identify whether high collinearity exists among predictors. One way to do so is to examine a correlation matrix of all explanatory variables and check whether they highly correlate.

Table 6.9: Variance inflation factor (VIF) result

Variable	VIF	1/VIF
FRMSZ	1.70	0.588
ACSZE	1.46	0.685
ACMDR	1.42	0.705
ACIND	1.37	0.731
ACFLT	1.35	0.740
BDIND	1.33	0.752
ADQLT	1.24	0.808
ACMTG	1.21	0.827
FRMGW	1.10	0.910
ACFDR	1.05	0.951
FRMLV	1.08	0.930
Mean VIF	1.30	

As a rule of a thumb, Brooks (2019) and Field (2009) state that correlation above 0.8 is a cause for concern. To that end, correlation matrices were constructed based on both Pearson and Spearman correlation coefficients, as indicated in Table 6.5. The correlation matrix indicates that there is no presence of multicollinearity amongst the variables since no correlation coefficient is higher than 0.9. All the coefficients are lower than 0.5. Gujarati and Porter (2009) and Hair *et al.* (2010) shared a similar view to Brooks (2019) and Field (2009); they posited 0.8 as the threshold at which multicollinearity concerns can be harmful to the regression analysis and make the reliability or the positive power of the model reduce. The highest correlation coefficient

is 0.461 (Pearson) in Table 6.2, 0.498 (Spearman) in Table 6.3, which are significant positive correlations between ACIND and BDIND from both tables.

Another way to diagnose multicollinearity is the Variance Inflation Factor (VIF). Statisticians suggest that a value of VIF higher than 10 signifies the existence of multicollinearity in the model (Field, 2009; Myers, 1990). Table 6.8 shows a mean VIF of 1.30, similar to the VIF in Table 6.9 where the VIF of each variable is less than two.

6.3.3.11 Choice of estimator and justification

The study model error structure symbolises the prevalence of panel heteroscedasticity, autocorrelation and contemporaneous correlation (HPAC). However, controlling for these standard errors becomes very important and critical. According to Cameron and Trivedi (2013) and Moundigbaye, Rea, and Reed (2018), they opined the use of alternative estimators that will produce valid standard errors and a more efficient estimation where fixed effects (like in this study), suffers from heteroscedasticity, autocorrelation and cross-sectional dependency issues. It is not uncommon for panel data to suffer from a variety of non-spherical error behaviours, including heteroscedasticity, autocorrelation and cross-sectional dependence. The presence of non-spherical errors, if not adequately addressed, can generate inefficiency in coefficient estimation and biasedness in the estimation of standard errors (Reed & Ye, 2011). As is evident from above, the simultaneous occurrence of heteroscedasticity, serial and cross-sectional correlation is a challenge to the existing estimation procedure. It, therefore, justifies the need not to progress with the study analyses based on the fixed-effects model.

To resolve the non-spherical error behaviours prevalent in panel data, Parks (1967) proposed an FGLS estimator, when serial correlation and cross-sectional correlation raise severe issues for econometric analyses. When the data-generating process (DGP) suffers from the group-wise heteroscedasticity, time-invariant cross-sectional correlation, and first-order [AR(1)] serial correlation, the Parks estimator is asymptotically efficient (Moundigbaye *et al.*, 2018)

Moundigbaye *et al.* (2018) use Monte Carlo experiments to produce evidence on the performance of a diverse range of panel data estimators. The focus is to develop practical guidelines that will enable researchers to select the best estimator for a given set of data. The study is a follow up on a similar study carried out by Reed and Ye

(2011). They concentrated on estimators that are readily available in statistical software packages such as Stata and Eviews, and for which the number of cross-sectional units (N) and periods (T) are in various sizes. This study uses the Stata statistical software package, and the cross-sectional units are 74, and the period is 14 years.

Parks' (1967) FGLS model remains the most commonly used estimation procedure for simultaneously handling cross-sectional and serial correlation (Chen, Chen, Lobo, & Wang, 2011).

Moundigbaye *et al.* (2018) recommend that when choosing an estimator for efficiency, the prerequisite is to identify the size of the panel dataset (N and T), and that is enough to determine the right estimator. The findings provide a useful hint on making a logical decision. The study uses T/N values in its analyses. Movement from one T/N value to another is undoubtedly a movement to a different data generating procedure (DGP), with different population error variance-covariance matrix (EVCN) values. The study considered various T/N points, where $T/N = 1.50$ is a crossing-over point to a significant level. Points below 1.50 are considered small to medium level. For this study, the $T/N = 14/74 = 0.19$, a small to medium level; this falls in one of the categories considered in Moundigbaye *et al.* (2018). It makes FGLS (group-wise heteroscedasticity + autocorrelation) and PCSE estimators to be more appropriate for this study, especially for efficiency and hypothesis testing following the recommendations.

According to Moundigbaye *et al.* (2018), when it comes to choosing an estimator for efficiency, the researcher only needs to know the size of the panel dataset (N and T). That is enough to determine his/her selection. When it comes to choosing an estimator for hypothesis testing, the choice is even simpler: choose the PCSE estimator. The PCSE estimator is the only other parametric estimator alongside the FGLS estimator that simultaneously addresses both serial and cross-sectional correlation (Moundigbaye *et al.*, 2018)

Moundigbaye *et al.* (2018) emphasise the need to use the same estimator to achieve efficiency in estimation and hypotheses testing. Moundigbaye *et al.* (2018) opined that using two estimators in the same study, one for efficient estimates and the other for hypotheses testing is not a valid recommendation. They, therefore, recommend bootstrapping the parametric estimates which assists in taking the advantages inherent

in the two estimators (FGLS and PCSE). Bootstrapping is, therefore, considered in this study.

6.3.3.12 Panel regression analysis using alternative panel data estimators

As explained in the preceding section, feasible generalised least square (FGLS) and panel-corrected standard errors (PCSE) estimators will first estimate the regression models specified in equation four and five in Chapter Five. After that, jackknifing and bootstrapping the estimates will conclude the procedure.

Table 6.10: FGLS and PCSE models: Regression results effects of audit committee attributes on RAM

	MODEL 1 FGLS	MODEL 2 PCSE
ACIND	0.032 (0.026)	-0.016 (0.037)
ACFLT	0.007 (0.034)	-0.021 (0.056)
ACMTG	-0.031*** (0.011)	-0.031** (0.015)
ACFDR	-0.017 (0.021)	-0.027 (0.032)
ACMDR	-0.010 (0.017)	-0.003 (0.023)
ACSIZE	-0.019 (0.014)	-0.006 (0.019)
BDIND	0.165* (0.099)	0.124 (0.123)
ADQLT	-0.056* (0.029)	0.007 (0.040)
FRMLV	-0.050* (0.027)	-0.115*** (0.034)
FRMSZ	0.035*** (0.009)	0.012 (0.012)
FRMGW	-0.018** (0.008)	-0.015 (0.011)
CONSTANT	-0.553*** (0.202)	-0.075 (0.213)
Observations	1036	1036
r ²		0.05

Standard errors in parentheses

****, ** and * denotes significance at 1%, 5% & 10% respectively*

6.3.3.13 The model results

The results of FGLS and PCSE models used are in Table 6.10. The result of the FGLS model shows that out of the six attributes in the model, it was only the audit committee meeting frequency that has a negative significant effect on RAM. An increase in the audit committee meeting, translates to a decrease in the practices of RAM among the listed firms in Nigeria.

The result of the PCSE model bears similarity with the results of the FGLS model to some extent, especially in terms of the significance of only one audit committee attributes out of the six attributes in the model. The audit committee meeting is the only attribute that has a negative significant effect on RAM. The similarity is in both the coefficient magnitude and direction. It differs marginally in the significant levels. The PCSE model records a five per cent significant level, whereas the FGLS model records a one per cent level of significance. There is a variation in both the p-value and the standard errors recorded from both models. The FGLS model has lower p-value (0.005) and standard error (0.011) when compared with the PCSE model: p-value (0.040) and standard error (0.015). This result corroborates the findings in Reed and Ye (2011) and Moundigbaye *et al.* (2018), which concludes that the FGLS estimator performs better than the PCSE estimator. The results also indicated some level of consistency, in that two variables, audit committee meetings and firm leverage can both significantly impact RAM from the results of the two models.

6.3.3.14 Jackknife and bootstrap the model estimates

Chapter Five adequately captures the essence of jackknifing and bootstrapping. Table 6.11 presents the results from jackknifing the estimates from the two models in Columns 1 and 2, and Column 3 presents the results from bootstrapping the FGLS model's estimates. Bootstrapping PCSE estimates is not yet available in Stata, as observed in Moundigbaye *et al.* (2018).

Jackknifing the PCSE model estimates takes an average of about 45 minutes, while it takes barely about 4 minutes to jackknife the FGLS model estimates using the same level of replications. In jackknifing, replications are automatically assigned based on the number of observations, but in bootstrapping, determining the replication level is the researcher's responsibility. The results in Table 6.11 uses a similar level of replication with jackknifing, that is, 1,036 replications.

Table 6.11 shows an improvement in the parameter estimates of the two models. Both models record improved and similar parametric values after jackknifing and bootstrapping. There is a command in Stata that does jackknifing and bootstrapping simultaneously, by first conducting the jackknifing and immediately followed by bootstrapping. Whichever way, the resultant estimates is still the same.

Table 6.11: FGLS/PCSE models: Panel regression results: after bootstrapping and jackknifing

	Jackknife		Bootstrap
	1 FGLS	2 PCSE	3 FGLS
ACIND	-0.098*** (0.030)	-0.098*** (0.030)	-0.098*** (0.031)
ACFLT	0.015 (0.040)	0.015 (0.040)	0.015 (0.039)
ACMTG	-0.062*** (0.020)	-0.062*** (0.020)	-0.062*** (0.020)
ACFDR	-0.061*** (0.022)	-0.061*** (0.022)	-0.061*** (0.021)
ACMDR	0.010 (0.018)	0.010 (0.018)	0.010 (0.017)
ACSZE	-0.006 (0.015)	-0.006 (0.015)	-0.006 (0.015)
BDIND	0.271** (0.107)	0.271** (0.107)	0.271*** (0.107)
ADQLT	0.014 (0.029)	0.014 (0.029)	0.014 (0.029)
FRMLV	-0.150*** (0.032)	-0.150*** (0.032)	-0.150*** (0.034)
FRMSZ	0.018* (0.009)	0.018* (0.009)	0.018** (0.009)
FRMGW	-0.063*** (0.011)	-0.063*** (0.011)	-0.063*** (0.011)
CONSTANT	-0.123 (0.193)	-0.123 (0.193)	-0.123 (0.194)
Observations	1036	1036	1036
Replications	1036	1036	1036
r2		0.155	

Standard errors in parentheses

****, ** and * denotes significance at 1%, 5% & 10% respectively*

A closer look at Table 6.11 indicates similarity in the results after jackknifing and bootstrapping. The only observed difference is that the standard errors after bootstrapping turn out to be smaller than that after jackknifing, although this observed difference is marginal. The difference is evident in the result of firm size variable which records a significant influence on RAM at 5% level after bootstrapping, but after jackknifing, barely records a marginally significant effect on RAM at 10% level. All other significant variables, record the same significant levels both after jackknifing and bootstrapping except board independence which records a marginal difference like the firm size. After bootstrapping, it records a significant influence at 1% but a 5% level after jackknifing. All these are observable in Table 6.11.

Table 6.12: FGLS Model: Panel regression results: The bias-corrected and accelerated (BCa) bootstrap

RAM	Observed coefficient	Bias	Bootstrapped Standard error	Z	P> Z
ACIND	-0.098***	0.000	0.031	-3.18	0.001
ACFLT	0.014	0.002	0.039	0.37	0.710
ACMTG	-0.062***	0.000	0.020	-3.10	0.002
ACFDR	-0.061***	0.001	0.021	-2.84	0.004
ACMDR	0.010	-0.000	0.017	0.57	0.571
ACSZE	-0.006	0.000	0.015	-0.40	0.687
BDIND	0.270***	-0.003	0.107	2.54	0.011
ADQLT	0.014	-0.001	0.029	0.47	0.638
FRMLV	-0.150***	0.005	0.034	-4.44	0.000
FRMSZ	0.018**	-0.000	0.009	1.97	0.049
FRMGW	-0.063***	0.000	0.011	-5.66	0.000
CONSTANT	-0.123	0.001	0.194	-0.63	0.526
Observations	1036				
Replications	1036				

***, ** and * denotes significance at 1%, 5% & 10% respectively

According to Moundigbaye *et al.* (2018) and Andrews and Buchinsky (2000), bootstrap methods in empirical research is gaining a great deal of popularity, but till date, has not attracted enough considerations in the field of accounting research. Part of its objectives is to serve as an alternative to statistical inferences based on a doubtful assumption of a parametric model, or where parametric inference is difficult or where complicated formulas are necessary for calculating standard errors. The bias-corrected and accelerated (BCa) bootstrap was developed by Efron in 1987 (Tibshirani & Efron, 1993). The syntax of this bias-corrected and accelerated (BCa) bootstrap as available in Stata and is adopted in presenting the final model result of this study. As stated earlier, it first conducts the jackknife replications before finally conducting the bootstrap replications. The results are presented in the Table 6.12.

The result after bootstrapping is adopted because it offers an optimal parametric estimate. Three audit committee attributes (independence, meeting frequency, and female directory) exert a significant negative influence on RAM at the 1% level. Four control variables, (board independence, firm leverage, firm size, and firm growth), also exert significant influence on RAM at the 1% level though at either positive or negative directions except firm size that records a 5% level of significance. Both board independence and firm size exert a significant direct influence on RAM while firm leverage and firm growth exert a significantly negative influence on RAM. Discussion of the empirical results and findings is in section 6.4

6.3.3.15 Robustness consideration

The study uses two analyses to confirm the robustness of the secondary data analysis results on audit committee attributes and RAM. The analysis is performed by log-transforming the firm leverage and by using the model of each type of RAM. It will be recalled from the variable definitions in Chapter Five, that out of the three firm-related control variables (firm leverage, firm size, and firm growth), only firm leverage was not log-transformed. The analysis after log-transforming firm leverage is the first robustness check on the results and findings.

Table 6.13: Bootstrapped regression results before and after firm leverage log-transformation: effects of audit committee attributes on RAM

	Before transformation FGLS	After transformation FGLS
ACIND	-0.098*** (0.031)	-0.076** (0.033)
ACFLT	0.015 (0.039)	0.013 (0.046)
ACMTG	-0.062*** (0.020)	-0.056*** (0.020)
ACFDR	-0.061*** (0.021)	-0.052** (0.022)
ACMDR	0.010 (0.017)	0.012 (0.018)
ACSIZE	-0.006 (0.015)	-0.006 (0.015)
BDIND	0.271*** (0.107)	0.263** (0.117)
ADQLT	0.014 (0.029)	0.025 (0.030)
FRMLV	-0.150*** (0.034)	-0.058 (0.059)
FRMSZ	0.018** (0.009)	0.027*** (0.010)
FRMGW	-0.063*** (0.011)	-0.047*** (0.011)
CONSTANT	-0.123 (0.194)	-0.5331** (0.236)
Observations	1036	1036
Replications	1036	1036

Standard errors in parentheses

****, ** and * denotes significance at 1%, 5% & 10% respectively*

The result of the regression analysis before and after the log-transformation without bootstrapping is identical. All the significant variables before the transformation were equally significant after the transformation. The coefficients' relationship directions are the same except for firm leverage which became positively significant after the transformation. The result is in appendix 10 for brevity.

The bootstrapped regression results before and after the firm leverage log-transformation is also the same, and is presented in Table 6.13. The results, as presented in Table 6.13, reveal that of all the significant variables before the log-transformation, only the transformed variable, that is firm leverage, became insignificant after the transformation. The relationship directions of the estimated coefficients are the same; even for the firm leverage the direction remains the same although insignificant.

The second check on the robustness of the results and findings uses the model of each of the RAM components, that is, sales manipulation, discretionary expenses manipulation, and production cost manipulation. This phase estimates audit committee attributes against each of the RAM components. In a similar pattern to the first robustness check above, the results in Table 6.14 are that of the bootstrapped regression analyses after the firm leverage log-transformation. The intention is to observe possible alignment or otherwise with the RAM components aside that of the composite RAM.

The results in Table 6.14 lend credence to the robustness of the findings of this study. A cursory look at the table reveals a sharp alignment between the regression results of the effect of audit committee attributes on the composite RAM model and with each of the three components of RAM models examined in this study. The following variables, audit committee independence, audit committee meeting frequency, audit committee female directorship, board independence, firm leverage, firm size, and firm growth all have a significant effect on composite RAM, and these same variables are the only variables that have a significant effect on the three components of RAM models.

The result is the same before the log-transformation of firm leverage variable. However, after the log-transformation, the difference noticed is that only firm leverage became insignificant in all the models, whether with the composite RAM or the three RAM component models. This condition is similar whether the estimates were jackknifed or bootstrapped. Table 6.14 present the results of the bootstrapped regression analysis after the log-transformation of firm leverage. Every variable that is significant in the composite RAM model, that is, the result in Column “1” of Table 6.14 is also significant in either one or all of the three models of the RAM components, that is, Column “2”, “3”, or “4”.

Table 6.14: Bootstrapped regression results after firm leverage log-transformation: effects of audit committee attributes on all the RAM components models

	FGLS RAM 1	FGLS ab_cfo 2	FGLS ab_disx 3	FGLS ab_prod 4
ACIND	-0.076** (0.033)	-0.006 (0.011)	0.036*** (0.010)	-0.046** (0.021)
ACFLT	0.013 (0.046)	-0.017 (0.016)	-0.014 (0.014)	-0.018 (0.033)
ACMTG	-0.056*** (0.020)	-0.004 (0.007)	0.019*** (0.006)	-0.040*** (0.012)
ACFDR	-0.052** (0.022)	0.003 (0.009)	0.023*** (0.007)	-0.025* (0.014)
ACMDR	0.012 (0.018)	-0.006 (0.008)	0.006 (0.005)	0.013 (0.011)
ACSIZE	-0.006 (0.015)	0.005 (0.006)	-0.003 (0.005)	-0.005 (0.009)
BDIND	0.263** (0.117)	0.036 (0.043)	-0.112*** (0.036)	0.187** (0.076)
ADQLT	0.025 (0.030)	0.016 (0.012)	-0.013 (0.010)	0.028 (0.018)
FRMLV	-0.058 (0.059)	-0.006 (0.011)	0.005 (0.013)	-0.059 (0.052)
FRMSZ	0.027*** (0.010)	0.016*** (0.003)	-0.025*** (0.003)	0.019*** (0.007)
FRMGW	-0.047*** (0.011)	0.012** (0.005)	0.012*** (0.004)	-0.023*** (0.007)
CONSTANT	-0.533** (0.236)	-0.404*** (0.071)	0.559*** (0.066)	-0.378** (0.173)
Observations	1036	1036	1036	1036
Replications	1036	1036	1036	1036

Standard errors in parentheses

****, ** and * denotes significance at 1%, 5% & 10% respectively*

ab_cfo, ab_disx, and ab_prod denotes sales, discretionary expenses and production cost manipulations

These results give credibility to the reliance on the model estimations of this study. The results are robust and reliable. The next section presents the analysis of the fifth and the last model of the secondary data regression analyses. The model on the impact of the SEC corporate governance codes on RAM which seeks to answer objective three.

6.3.4 Objective 3: Impact of SEC corporate governance codes on RAM

This section seeks to establish the effect or impact of the introduction of the 2003 SEC code and its review in 2011. Table 6.15 presents the results of Breusch-Pagan LM test, indicating that the random-effects model is more appropriate than a pool model. It is appropriate to reject the null hypothesis since the p-value of the test is significant at one per cent, which implies that the random-effects model is more appropriate than the pool OLS model. The results reveal the presence of cross-sectional dependence in the model estimates.

Table 6.15: Static panel data regression results of the impact of SEC corporate governance codes on RAM

Dependent variable: RAM			
	OLS RAM 1	Random-effects RAM 2	Fixed-effects RAM 3
ICCGV	0.044 (0.040)	0.034 (0.028)	0.039 (0.029)
CCCGV	0.027 (0.032)	0.039 (0.024)	0.047* (0.026)
BDIND	0.141 (0.100)	0.075 (0.095)	0.075 (0.098)
ADQLT	0.024 (0.031)	-0.041 (0.033)	-0.048 (0.034)
FRMLV	-0.145*** (0.013)	-0.175*** (0.012)	-0.180*** (0.013)
FRMSZ	0.008 (0.008)	-0.005 (0.014)	-0.013 (0.016)
FRMGW	-0.064*** (0.010)	-0.021** (0.008)	-0.016* (0.008)
CONSTANT	-0.144 (0.188)	0.203 (0.295)	0.383 (0.354)
Observations	1036	1036	1036
F	22.22		34.09
P>F	0.000		0.000
r ²	0.131		0.20
F-test			18.95
Pro>F			0.000
xttest0	chibar2(01)=1954.43: P>chibar2 = 0.000		
Hausman		chi2(11)= 11.87: P>chi2 = 0.105	

Standard errors in parentheses

****, ** and * denotes significance at 1%, 5% & 10% respectively*

Therefore, it is not suitable to pool the data but rather that the random-effects model should be adopted. The Hausman test ascertains the most appropriate model between the fixed-effects and random-effects models. Table 6.15 also presents the results of the Hausman test, which gives a chi-square value ($\chi^2(7)$) of 11.87 with a probability level ($\text{Prob}>\chi^2$) of 0.1048. Therefore, the study fails to reject the null hypothesis and concludes that the random-effect is more appropriate than the fixed-effects model.

6.3.4.1 The choice of an appropriate estimating technique

Considering the inherent advantages of adopting the FGLS model and bootstrapping discussed under objective two, and based on robustness checks after that, it is appropriate to use the FGLS model as well as bootstrapping in addressing the third objective which is the impact of corporate governance codes on RAM.

Both the introduction of the SEC (2003) code of corporate governance and the review of the code in 2011 have no significant effect on RAM as revealed in Table 6.16. This result is similar to the result of the random-effects model in Column 2 of Table 6.15. It further justifies the choice of the bootstrapped FGLS model. In Table 6.16, only two control variables, firm leverage and firm growth have a significant effect on RAM. The result is similar in all the models used in the estimation, which is a positive signal in confirming the robustness of the parametric estimates.

Table 6.16: Bootstrapped FGLS model: Panel data regression analysis: The bias-corrected and accelerated (BCa) bootstrap result

RAM	Observed coefficient	Bias	Bootstrapped standard error	Z	P> Z
ICCGV	0.044	-0.001	0.038	1.14	0.256
CCCGV	0.027	-0.000	0.032	0.82	0.410
BDIND	0.141	-0.006	0.095	1.49	0.137
ADQLT	0.024	-0.000	0.030	0.80	0.425
FRMLV	-0.145***	0.005	0.034	-4.26	0.000
FRMSZ	0.008	-0.000	0.008	0.95	0.344
FRMGW	-0.064***	0.000	0.011	-5.69	0.000
CONSTANT	-0.144	0.002	0.192	-0.75	0.453
Observations	1,036				
Replications	1,036				

***, ** and * denotes significance at 1%, 5% & 10% respectively

6.4 Discussions of the empirical results and inferences

The results from the analysis have shown that the prevalence of RAM in Nigeria tend towards income-increasing manipulations. All of the three measures of RAM assessed in this study, sales manipulations, discretionary expenses manipulations, and production costs manipulations, appear to be prevalent among the listed firms in Nigeria. The implication is that most of the listed firms do manipulate earnings upwards. The quality of financial reporting becomes doubtful as it does not give an accurate and fair view of the economic engagements. Listed firms seem to engage in activities that can promote RAM. The finding is similar to the view of Okolie *et al.*, (2014) that the financial reports of many listed firms do not portray the real cash flow analysis of the companies which is an indication of the prevalence of RAM practices.

Considering the relationships between the audit committee attributes and RAM, it is evident that not all the attributes of the audit committee could have a significant negative impact on RAM. The results from the bootstrapped panel analysis indicate that the audit committee independence, meeting frequency, and female directorships are all essential attributes that can constrain RAM practices among the listed firms in Nigeria.

They are all negatively significant at one per cent level. The implication of this is that having non-executive directors, female directors as members of the audit committee, and members frequently meeting, at least quarterly, will go a long way to reduce the incidences of RAM.

Hassan and Ibrahim (2014) and Bello *et al.* (2015) are both Nigerian studies on audit committee attributes and RAM in manufacturing industries. They find a significant positive relationship between audit committee independence and RAM, the direction of the relationship is opposite to the findings of this study, and as such contradicts the findings of this study. The findings on audit committee independence (ACIND) imply that excluding executive directors as audit committee members will significantly reduce the incidence of manipulations in listed firms in Nigeria. Also, this confirms the *a priori* expectation, which states that there is a significant negative relationship between ACIND and RAM. This result is probed further in the logistic regression analysis to get a more in-depth perspective on this relationship.

In the opinion of Bronson, Carcello, Hollingsworth, and Neal (2009), there is no alternative to a completely independent audit committee if the desire is to improve corporate governance. They conclude that allowing even one non-independent member in the audit committee appears to be problematic and can affect the integrity of the committee. Inaam *et al.* (2012) states that the presence of independent audit committee limits RAM behaviour, improves the control mechanism, and limits managers' opportunistic behaviour, corrupt accounting manipulations, and fraudulent behaviour. These different studies support the findings in this study that the independence of the audit committee members is an essential factor that can curb RAM among listed firms in Nigeria. However, this result is inconsistent with the findings of Garven (2015) and Visvanathan (2008) who detected no significant association between RAM and an independent audit committee.

Audit committee meeting frequency (ACMTG) is another attribute found to have a significant negative impact on RAM. The results from the analysis show that infrequent meetings can be detrimental to the functions of the audit committee in lowering RAM among the listed firms in Nigeria. This finding is an indication of some level of consistency in the results. The audit committee independence has a useful link with the audit committee meeting frequency because having non-executive members on the

committee that meet frequently, (at least between three to four meetings annually), will be useful in controlling RAM. The empirical results from this study show that 79% of the sampled firms meet between three to four times annually. This result agrees with the developed hypothesis on ACMTG, which states that there is significant negative relationship between ACMTG and RAM. The logistic regression analysis result provided a further insight into this relationship.

In Nigeria, the SEC (2011) advocated that audit committee meetings should not be less than three times in a year. According to DeZoort *et al.* (2002), frequency of meeting may indirectly give a signal on the tenacity of the committee and it mostly represents a proxy for diligence. Chen and Zhou (2007) and Stewart and Munro (2007) observed that frequent audit committee meetings could significantly enhance and uphold good corporate governance in companies.

Other studies that align with this finding includes Bala and Gugong (2015), Soliman and Ragab (2014), García-Meca and Sánchez-Ballesta (2011), Li, Pincus, and Rego (2008), Zhang *et al.* (2007), and Persons (2005). These studies agree that there exists a dynamic link between audit committee meeting frequency and corporate disclosure, a reduced occurrence of the financial restatement, improved transparency, the openness of reported earnings, or reduced fraudulent financial reporting. Menon and Williams (1994) find that an audit committee, which holds fewer meetings than the minimum of two per year as suggested by the American Bar Association, is less likely to pursue duties diligently. There is a relationship between audit committee meeting frequency and other audit committee attributes and firm variables (Menon & Williams, 1994). Menon and Williams (1994) further revealed that the audit committee meeting frequency was associated with the proportion of outside (non-executive) directors and firm size.

In contrast, Bello *et al.* (2015), Bala and Gugong (2015), Hassan and Ibrahim (2014), Baxter and Cotter (2009), Lin *et al.* (2006), Davidson, Goodwin-Stewart, and Kent (2005), Bédard *et al.* (2004), and Chtourou *et al.* (2001) found an insignificant relationship between audit committee meeting and earnings manipulation. Their results indicated no relationship between audit committee meetings and the quality of earnings or financial reporting.

The third audit committee attribute that has a strong influence on RAM is the female directorship (ACFDR). Evidence from the empirical analysis has shown that female directors in the audit committee have a significant negative impact on RAM. This means that the presence of female members can mitigate fraudulent practices leading to an enhanced quality of financial reporting in Nigerian listed firms. The prevalence of RAM practices will increase when there is a decrease in the ACFDR among listed firms in Nigeria. This result is in line with the *a priori* statement on ACFDR that a significant negative relationship exists between ACFDR and RAM. It is not proper to conclude on this relationship based on this result since further analysis through the logistic regression will broaden and deepen the understanding of the results.

It is not surprising that there is an intensified call for female inclusion in both corporate and political governance. In the opinion of Schubert (2006) and Watson and McNaughton (2007), women are careful not to incur losses and are not willing to embrace severe risks. As such they will be unwilling to compromise or support any action that will jeopardise the financial integrity of the firm or overlook transactions that are an outright violation of regular business routine that could lead to manipulations of real activities. Krishnan and Parsons (2008) support this view when they empirically document that the quality of earnings is positively related to gender diversity in managerial positions.

Adams and Ferreira (2009) found that female directors are more eager to attend meetings than their male counterparts. This view will make these attributes, that is, meeting frequency and female directorships, combine to constrain manipulations of real activities. Incidentally, the two attributes are negatively significant from the results of this study. In a related study by Terjesen *et al.* (2009), they observed that female directors would not be quiet or overlook any form of ambiguity, but instead they ask many probing questions to seek clarifications and clear doubts where they exist. Huse and Solberg (2006) were of the view that female directors prepare better for meetings than male directors. They do not attend meetings haphazardly but rather approach every meeting well organised with a serious and committed mind-set. It is more comfortable for female directors to perform oversight functions more independently, not necessarily depending or waiting for the reports and presentations from management (Huse & Solberg, 2006). It becomes easy to prepare well ahead and ask probing questions at such meetings (Adams & Ferreira, 2009; Huse & Solberg, 2006; Terjesen *et al.*, 2009).

Influencing the male directors positively by the female directors has become easier (Huse & Solberg, 2006).

However, Sun *et al.* (2011), found an insignificant connection between the ratio of female directorships and the depth of earnings manipulations; using 525 firm-year data between the years 2003 to 2005, they examined if director's gender on a completely independent audit committee impinges on the committee's capacity to constrain manipulation of earnings and thereby influence the oversight functions in the financial reporting process.

Other attributes of audit committee such as audit committee financial literacy, audit committee multiple directorships, audit committee size are not significant in controlling RAM. The results on the three attributes are not in line with the hypotheses developed earlier, although further insight on these relationships was obtainable through the logistic regression analysis.

The reason for this insignificant relationship might be because there exists some interconnection between these attributes (Elnafabi, 2019). For instance, audit committee financial literacy could improve by including more non-executive members (size) in the audit committee who have gained experience and are skilful as a result of occupying directorship seats in one or two other committees (multiple directorships). This inter-relationship between attributes has been confirmed by some studies (Collier & Gregory, 1996; Menon & Williams, 1994). The results of the F-test in Table 6.15 showed a joint significance of all the independent variables. The regression provides enough evidence (from both the F-test and the T-test results) to conclude that the model is significant, but not enough to conclude that each individual variable is significant in explaining the variability of RAM practices.

The insignificant status of some of these attributes and other control variables might be as a result of the prevailing trend and the enabling circumstances to thrive. For instance, 81.2% of the sampled firms have at least one audit committee member who is financially literate but empirical evidence reveals an insignificant influence on RAM. Observations during the data collection revealed that most of these financially literate audit committee members are executive directors (in most cases they are the CFOs) which may jeopardise their ability to impact RAM (as they are likely to protect their interests as well as that of the management to the disadvantage of other stakeholders).

This observation further confirms why having only non-executive directors as audit committee members will significantly reduce incidences of RAM. It is the recommendation in line with world best practices that the audit committee should consist of entirely non-executive or independent directors (where possible) (Drogalas, Arampatzis, & Anagnostopoulou, 2016). The sampled firms that did not have executive members in their audit committee, that is, completely non-executive members were 46.9%, yet this attribute (audit committee independence) was negatively significant at one per cent level.

It appears that all the attributes of the audit committee are interconnected or interrelated as shown in the results of the F-test in Table 6.15 showed a joint significance of all the independent variables in explaining the variability of RAM practices among listed firms in Nigeria. Therefore, effectiveness in one will go a long way to spur the effectiveness in others and strengthening the roles of the audit committee in controlling RAM becomes achievable. The contrary could happen based on the prevailing circumstances to which any of the attributes are affected or altered. Notwithstanding, other variables included in the analysis are not audit committee attributes but are part of the control variables. Furthermore, among these control variables, some of them exert a significant negative impact on RAM among listed firms in Nigeria. For instance, board independence, firm size, and firm growth are germane to controlling RAM in Nigeria.

Board independence was measured in this study by the proportion of non-executive directors to the board size. The finding is positively significant, and it contrasts with the audit committee independence. To recap, audit committee independence has a significant negative impact on RAM among listed firms. The result on board independence implies that the proportion of non-executive members on the sampled corporate boards cannot sway the management tendency to manipulate RAM. The proportion of the non-executive directors on the board of the sampled firms was 76.5% and yet they are not able to exert any pressure on the management to ensure quality financial reporting devoid of RAM. It confirms the need to have a corporate board that is entirely independent, that is, devoid of any executive influence or interferences. Infiltrations of the board of the companies with the executive directors may aid and abet RAM.

The two variables (BDIND and ACIND) function almost similarly, although a similar indicator did not measure them. Audit committee independence requires 100% non-executive membership to have an independent status whereas board independence requires a significant proportion of non-executive directors in the entire board size. Therefore, the effectiveness of the dependent variable is also dissimilar. The findings of Klein (2002a) revealed that board independence leads to a lower level of accrual management, thereby suggesting the importance of board independence in increasing board vigilance. This study expects that firms with a higher proportion of non-executive board members are likely to monitor managers over earnings manipulation, and that could lead to a significant negative relationship.

The literature on RAM has shown that executive directors of many firms are found culpable in financial reports manipulations of many firms in Nigeria (Aina & Adejugbe, 2015; Salihi & Jibril, 2015). The implication is that companies that engage in RAM have more executive directors dominating their boards. Therefore, the individual objective usually constitutes an interference to the overall company objective. According to Obigbemi, Omolehinwa, Mukoro, Ben-Caleb, and Olusanmi (2016), company boards are responsible for presenting the right image of the company to the shareholders to attract more funding to the organisation. The board secretly engages in image-polishing strategies that will portray both the financial and operational indicators of the company in a good light. This is done by encouraging and indulging in unrealistic adjustments of the firm's operations and its financial reports, thereby aggravating the incidence of RAM. An example of this is the removal of 13 members of the Spring Bank board in 2008 due to the prevalence of manipulations in the financial reports (Awoyemi, 2009).

Firm leverage is another control variable that showed a significant negative relationship with RAM. This result indicates that decreasing the leverage of a firm will lead to increasing the RAM practices of such a firm. Leverage is the use of various financial instruments or borrowed capital to increase the potential return of an investment. It also serves as a signal to the amount of debt used to finance a firm's assets. A firm with significantly more debt than equity is highly leveraged. In this study, firm leverage was captured by the ratio of total debt to the total asset of the firm. According to DeFond and Jiambalvo (1994), managements of highly leveraged firms have an inducement to perpetrate income-increasing earnings manipulations to evade debt covenants.

Baxter (2007), in a similar perspective, opined that firms with high leverage are exposed to the risk of debt covenant constraints and are therefore exposed to a higher proclivity to manipulate earnings. The higher the leverage of a firm, the lower is the level of RAM practices (Baxter, 2007). It implies that the level of debt incurred by a firm can trigger the desire to manipulate real activities. There exists evidence that many firms that were insolvent in the past engage less in RAM; and more recently, that many firms monitor the levels of their debt and to reduce their debt profile, they engage in RAM to attract equity financing to avoid insolvency (equity financing will increase the liquidity of the firm) (Anagnostopoulou & Tsekrekos, 2017; Jelinek, 2007; Zagers-Mamedova, 2009).

This situation makes the effect of firm leverage controversial. The finding of this study is consistent with that of Becker *et al.* (1998) who also record a negative relationship between firm leverage and earnings manipulation. However, it contradicts the results of Bartov (1993) who found a positive relationship between leverage levels and earnings management. Nevertheless, the level of firm leverage and most importantly, the level of indebtedness of a firm is an essential factor that can promote RAM among the listed firms in Nigeria.

Firm size is one of the most familiar control variables used in all earnings manipulation studies (Idris, 2012). It is the natural log of total assets (Becker *et al.*, 1998). The empirical findings reveal that firm size has a significant positive relationship with RAM, meaning that larger firms engage more in RAM, that is, the larger the firm, the more the manipulation of real activities. Barton and Simko (2002) revealed that large firms manage their earnings due to investors' pressure and the desire to meet analysts' expectations. Large firms can negotiate with auditors as observed by Nelson, Elliott, and Tarpley (2002), insisting that the larger the firm, the larger its negotiating power. Auditors mostly ignored earnings manipulations of large firms (Nelson *et al.*, 2002). Large firms reduce political cost by manipulating their earnings. The benefits and skills to manipulate earning change with the size of the firm (Ali, Noor, Khurshid, & Mahmood, 2015).

This result is consistent with Sellami (2015) and Purnama and Nurdiniah (2019). It, however, contradicts the findings in these studies (Choi, Kwak, & Choe, 2014; Idris, 2012; Inaam *et al.*, 2012; Xie *et al.*, 2003) which document a negative relationship

between firm size and earnings manipulation, indicating that larger firms engage less in RAM practices.

Firm growth is the third and the last firm variable used in this study as a control variable. It is measured by the logarithm of the market to book ratio consistent with Yu (2008). This variable from the empirical results exhibits a significant negative relationship with RAM. It implies that a firm with a tremendous growth opportunity is associated with quality financial reporting, meaning that firms with high market prospects listed in Nigeria are less inclined to engage in RAM. This finding is in contrast with the results of Raoli (2012), and Jensen (2005). They believe that managers of a high-valued firm have the incentive to engage in income-increasing manipulation in order to sustain the firm's valuation. The negative and significant effect in this study suggests that highly valued firm are likely to have sophisticated institutional investors who will go an extra mile to ensure quality financial reporting devoid of RAM.

An essential aspect or element of the audit committee, which is audit quality, fails to have a significant effect on RAM. Measurement of this variable is through a dichotomous variable of one if a firm is a client to the "big four" audit firm in Nigeria or zero if otherwise. Findings from this study have shown that using any of the big four audit firms might not indicate that the firm will be less prone to RAM. Studies by Ernst and Young (2013) have shown that firms that are audited by Akintola Williams Deloitte, PricewaterhouseCoopers, Ernst & Young and KPMG are not free from RAM. Even though these four audit firms have enough expertise and human capital to conduct effective and efficient audits, this they might not guarantee RAM free financial reports by granting the audit committee the needed independence to carry out their duties.

The current study's sub-objective is to verify if the code of corporate governance introduced by the Nigerian SEC in 2003 and its subsequent review in 2011 has been effective in controlling RAM or not. It is evident from the empirical results that these codes have not had any significant effect on RAM. Both are statistically insignificant. The implication is that both the 2003 SEC code and the modified one reintroduced in 2011 has failed to have any notable impact on RAM among the listed firms in Nigeria. The results contradict the *a priori* expectations on these variables, that is, ICCGV and CCCGV, which states that there is a significant negative relationship between ICCGV and CCCGV with RAM practices among listed firms in Nigeria. Triangulating these

results with the logistic regression results will deepen the understanding of these relationships. The triangulation of the results is in Chapter Eight.

This finding is in line with SEC (2011) that many of the codes and policies meant to prevent financial report manipulations have not been effective due to the level of compliance that is very low. Therefore, findings from this study appear to be justifying this position, that the mode of implementation and enforcement of these codes are fundamental to its effectiveness. No matter how thorough a policy or code appears, poor implementation and enforcement will always limit its effectiveness. This further reinforces the view in stakeholder theory, that everyone who has a stake in the firm must ensure the enforcement and strict compliance with the principles of the code.

In conclusion, the results from this study have supported the view that all the variables used as independent variables in the panel model will jointly affect RAM significantly. The implication is that all the attributes of the audit committee and other control variables included in the panel model can jointly control RAM among the listed companies in Nigeria.

6.5 Hypothesis testing

Chapter Five highlighted the main objective of this study which entails testing of the developed hypotheses. This section concentrates on examining the t-statistics results of the regression analysis. In Chapter One, research question one addressed the prevalence of RAM practices by examining the three types of RAM using the three models of RAM covered in this study. Therefore, no hypothesis was developed for research question one. Research question 2 addresses hypotheses H_{1A} to H_{1F} , which focuses predominantly on the attributes of the audit committee members. Research question 3 addresses hypotheses H_{2A} and H_{2B} focusing on SEC codes of 2003 and 2011.

Tables 6.8 – 6.18 show the analysis of the test results of hypotheses H_{1A} to H_{1F}

Considering the relationships between the audit committee attributes and the RAM, it is evident that all the attributes are inter-related and jointly significant. However, the t-test revealed that not all the attributes of the audit committee are individually negatively significant in constraining RAM practices.

Hypothesis 1A (H_{1A}): *Audit committee independence has a negative significant effect on RAM in Nigerian listed companies.*

Audit committee independence is measured by a dichotomous variable which records “0” if at least one member is an executive director and “1” if otherwise. It represents the absence of executive directors in the committee membership. Table 6.12 reveals that the coefficient is statistically significant at the one per cent level. Based on the parameter estimates in the models, audit committee independence has a negative significant effect on RAM. The coefficient of audit committee independence is -0.0977. This result implies that there is an inverse relationship between audit committee independence and RAM. As the level of independence available to audit committee increases, RAM practices among the listed firms will also decrease. The result emphasises the importance of the independence of audit committee members in ensuring quality financial reporting. Therefore, the hypothesis is accepted.

Hypothesis 1B (H_{1B}): Audit committee financial literacy has a negative significant effect on the manipulations of real activities in Nigerian listed companies.

A dichotomous variable measures audit committee financial literacy; if at least one member is an expert in accounting/finance “1” and ‘0’ if otherwise. Table 6.12 reveals that the coefficient is positive and not statistically significant. Based on the parameter estimates in the models, audit committee financial literacy has no significant effect on RAM. Therefore, the stated hypothesis of a negative significant effect on manipulations of real activities in Nigerian listed companies is rejected.

Hypothesis 1C (H_{1C}): Audit committee female directorships have negative significant effects on RAM in Nigerian listed companies.

The audit committee female directorship is the total number of female directors on the committee. Table 6.12 reveals that the coefficient is (-0.0607) negative, and statistically significant at one per cent level. Given the parameter estimates in the model, the audit committee female directorship has a negative significant effect on RAM. Therefore, the developed hypothesis of a negative significant effect of audit female directorships on manipulations of real activities in Nigerian listed companies is accepted.

Hypothesis 1D (H_{1D}): The audit committee meeting frequency has a negative significant effect on the manipulations of real activities in Nigerian listed companies.

Audit committee meeting frequency is the number of meetings held in a year by the audit committee of a firm. From Table 6.12, the coefficient is (-0.0616) negatively significant at one per cent level. The implication of this is that the audit committee meeting frequency has a negative significant effect on RAM. Therefore, the developed

hypothesis of a negative significant effect on manipulations of real activities in Nigerian listed companies is accepted.

Hypothesis 1E (H_{1E}): *The audit committee multiple directorships have a negative significant effect on RAM in Nigerian listed companies.*

Audit committee multiple directorships is the number of director seats occupied on other board or audit committee of other firms. In Table 6.12, it is evident that the coefficient is positively insignificant statistically. Given the parameter estimates in the model, audit committee multiple directorships have an insignificant effect on RAM. Therefore, the stated hypothesis of a negative significant effect of audit committee multiple directorships on manipulations of real activities in Nigerian listed companies is rejected.

Hypothesis 1F (H_{1F}): *Audit committee size has a negative significant effect on the manipulation of real activities in Nigerian listed companies.*

The audit committee size is another attribute found to be having an insignificant negative effect on RAM. The entire membership of the committee is the proxy for measuring audit committee size, that is, the total number of members in the committee. From Table 6.12, based on the parameter estimates in the model, the size of an audit committee has an insignificant effect on RAM. Therefore, the stated hypothesis of a negative significant effect on manipulations of real activities in Nigerian listed companies is rejected.

Hypothesis 2A (H_{2A}): *The introduction of the code of corporate governance by the Nigeria SEC in 2003 has a negative significant effect on RAM in Nigerian listed companies.*

The introduction of the 2003 SEC code of corporate governance indicator, that is the ICCGV, describes the adherence of the companies to the 2003 SEC Code of Corporate Governance. From Table 6.16, the coefficient is negatively insignificant. The implication of this from the results is that the introduction of the SEC Code of Corporate Governance in 2003 has no significant effect on RAM in Nigerian listed firms. Therefore, the stated hypothesis of a negative significant effect on manipulations of real activities in Nigerian listed companies is rejected.

Hypothesis 2B (H_{2B}): *The review of the code of corporate governance in 2011 has a negative significant effect on RAM in Nigerian listed companies.*

The other code of corporate governance indicator, that is, the CCCGV describes the impact of the review of the SEC (2003) code in 2011. From Table 6.16, its coefficient is also negatively insignificant. The implication of this, from the empirical results, is that the review of the 2003 Code of Corporate Governance in 2011 by SEC has an insignificant effect on RAM in Nigerian listed firms. Therefore, the stated hypothesis of a negative significant effect on manipulations of real activities in Nigerian listed companies is rejected.

Table 6.17 Summary of hypotheses' results

No.	Hypothesis	<i>A priori</i> statement	Result sign	Result statement
H _{1A}	Audit committee independence has a negative effect on RAM in Nigerian listed companies.	-SG	-	SG
H _{1B}	Audit committee financial literacy has a negative effect on the manipulations of real activities in Nigerian listed companies.	-SG	+	NSG
H _{1C}	Audit committee female directorship has a negative effect on RAM in Nigerian listed companies.	-SG	-	SG
H _{1D}	Audit committee meeting frequency has a negative effect on the manipulations of real activities in Nigerian listed companies.	-SG	-	SG
H _{1E}	Audit committee multiple directorships has a negative effect on RAM in Nigerian listed companies.	-SG	+	NSG
H _{1F}	Audit committee size has a negative effect on the manipulation of real activities in Nigerian listed companies.	-SG	-	NSG
H _{2A}	The introduction of the code of corporate governance by the Nigeria SEC in 2003 has a negative effect on RAM in Nigerian listed companies.	-SG	-	NSG
H _{2B}	The review of the code of corporate governance in 2011 has a negative effect on RAM in Nigerian listed companies.	-SG	-	NSG

-SG = *Negatively significant*; SG = *Significant*; NSG = *Not Significant*; NA = *Not Applicable*.

6.6 Summary

The aim of this chapter was to analyse the impact of audit committee attributes on RAM practices in Nigeria. The hypothesised variables comprised of the following attributes of the audit committee: independence, financial expertise, multiple directorships, meeting frequency, female directorships and size. Further, three RAM measures were developed to proxy for manipulations through sales, discretionary expenses and production costs, and the aggregate of these manipulation proxies represented a dependent variable labelled RAM. These RAM proxies follow the models of Roychowdhury (2006) for sales manipulation, discretionary expenses manipulation and production costs manipulation.

Two analyses were conducted based on the measurement of RAM proxies. In the primary analysis, RAM measurement is in absolute terms in order to examine the effect

of the hypothesised variables on magnitudes of RAM practices. The empirical findings suggested that audit committee independence, audit committee meeting frequency, and audit committee female directorship are effective in constraining RAM in Nigerian listed firms. As for the three proxies of RAM, all the three components were prevalent among firms listed in Nigeria. All other audit committee attributes (financial expertise, multiple directorships, and size) had no significant effect on RAM in Nigeria. The introductions of the SEC code in 2003 (ICCGV) and the subsequent review of the code in 2011 (CCCGV) also did not have a significant effect on RAM. However, all the control variables have a significant effect on RAM except audit quality which is positively insignificant.

The results obtained from employing these RAM models tend towards indicating an income-increasing manipulation in Nigeria. The next chapter discusses the methodology, analytical techniques, and discussion of the questionnaire survey, which complements the findings in this chapter.

CHAPTER SEVEN: RESEARCH METHODOLOGY ON PRIMARY DATA ANALYSES

7.1 Introduction

The survey research by triangulation of results investigates further the three research questions in this study. Using survey research to further investigate the second research question provides a deeper understanding of why the audit committee attributes may or may not influence RAM. The results of the survey method, through the primary quantitative data analyses, is thus used to get a complementary and more in-depth understanding of the multiple regression analysis outcomes of archival data. In all the related literature reviewed, none used triangulation in their studies. All the reviewed studies adopted a monomethod, and the researchers do not have any choice than to accept and interpret their findings as it is. The desire for complementarity, in-depth analyses, and more in-depth understanding of the constructs of this study is the motivation for the choice of triangulation approach. This chapter presents the methodology of the primary data analyses. Chapter Five covered the philosophical assumptions, research design, and the triangulation concerns of this study. This chapter, therefore, sets out the primary data investigation using survey study, detailing the sampling methods and procedures, the instrument of data collection, and the collection of data and analytical techniques involved. It also discusses the validity and reliability of the study and ethical considerations. It reveals the basis and rationale for using the sequential multimethod design, and the connection between the two phases explained in Chapter Five.

7.2 Survey design and techniques used

This section examines the survey design used in surveying the opinions of audit committee members of listed companies in Nigeria concerning the impact of their attributes on RAM. The choice of survey design using a questionnaire using a questionnaire allows for generating a representative sample size which affords generalisation of the findings and the coverage of widely dispersed and numerous participants. Because it is flexible to administer, there several methods of administering the questionnaires which are available to researchers. It may be considered to be an ethical approach since participants are not susceptible to any harm, the questions involved are related to events that occur in real-life situations, and, in the opinion of

Mathers, Fox, and Hunn (2007) combining it with other methods is straightforward and capable of generating a richer dataset.

7.2.1 Survey research

Surveys allow the description of quantitative or numerical trends, attitudes and opinions by studying a population sample (Creswell, 2009). Saunders *et al.* (2012) states that a survey permits the collection of large size of data, and that using a survey administered to a sample from a large population in a manner that is highly economical, makes it accessible. Classification of the obtained data from the various Likert scale items to different variables affords easy comparison and smooth analytical procedures.

According to Straub, Boudreau, and Gefen (2004), and Malhotra and Birks (2007), surveys are a structured data collection technique that allows respondents to answer either verbally or in writing. In a survey, it is a usual practice to ask many questions at a time or measure many variables and test different hypotheses (Neuman & Kreuger, 2003).

7.2.1.1 Advantages and disadvantages of a survey

A survey generally represents a positivist research paradigm and the quantitative data collected helps in identifying possible relationships amongst variables (Hussein, 2009). Zikmund (2000) contends that assessing information relevant to the population in a quick, accurate, inexpensive and efficient manner is guaranteed through surveys. Generating a competent and robust responses through the questionnaire is an advantage of surveys filled in by respondents since it avoids potential bias from the researcher (Parafloo, 1994).

To collect primary data, there are several choices to make among the available techniques. The first decision is whether to employ communication or observation. Observation does not involve questioning. Instead, it means that the situation of interest under control and the relevant facts, actions, or behaviours are recorded (Churchill, 1992). Communication involves questioning respondents to gather the desired information using a questionnaire. Information gathering can be exciting and necessary in a study, and a questionnaire opens a quick and easy avenue to do that. Therefore, designing a questionnaire requires enough technical knowledge coupled with intellectual exercise, especially in keeping abreast with the study objectives. However, the emphasis of this section is placed on a survey questionnaire because it is the

appropriate technique used in this study. Despite the above, a limitation to this approach is the number of questions that any survey can contain so that the respondent will not be discouraged or frustrated. The more questions involved, the more frustrating it becomes to respondents.

The survey method used a well-structured closed-ended cum open-ended questionnaire (Appendix 1). It was administered to all the audit committee members (serving as at the time of data collection) of the sampled listed companies in this study to obtain the necessary primary data required for the study. A survey can be either cross-sectional with data collection done at one point in time, or longitudinal with data collection done over some periods (Neuman & Kreuger, 2003). For this study, it was appropriate to adopt a cross-sectional survey because data gathering would be only from the current audit committee members of the sampled firms. The next section discusses this further.

7.2.1.2 Content and layout of the questionnaire

Section A comprised general questions which were intended to get the demographic and personal information of the respondents. It contained 15 questions which were either open or closed-ended in nature. Section B comprised 42 questions. The questions were sub-divided amongst the three research questions. The first research question sought to establish the prevalence of RAM in Nigerian listed companies and had five questions. To answer the second research question, the six audit committee attributes in this study were shared among 31 questions. Each attribute had a total of five questions except for female directorship. For the third research question, there were six questions which sought to understand the impact of the introduction in 2003 and subsequent review in 2011 of the codes of corporate governance by the SEC on RAM in Nigerian listed companies.

7.2.2 The population

Neale and Uebert (1986) define a population as a representation of a well-defined collection of objects, things or individuals. As the primary objective of this study was to obtain an understanding of the impact of audit committee attributes on RAM in Nigeria, the population for this study comprised all the audit committee members elected by shareholders of companies listed on NSE whose primary obligation is to ensure quality financial reporting.

7.2.3 Sampling

This study uses purposive sampling as the sampling approach. Purposive sampling is a “sampling strategy in which the researcher exercises his or her judgment about who will provide the best perspective on the phenomenon of interest, and then intentionally invites those specific perspectives into the study” (Abrams, 2010, p. 538). Purposive sampling tends to involve relatively small samples of carefully and purposively selected individuals who share a common interest, expertise and knowledge, and produce believable, ethical and feasible descriptions to generate rich and detailed information about the phenomena (Miles & Huberman, 1994; Yin, 2006). Additionally, purposive sampling links the sample to the research objectives (Yin, 2006).

Therefore, the current audit committee members of the relevant companies as at the time of data gathering that is, 2017 were appropriate. The choice of audit committee members as the sources of information or respondents for this research was because they share a common interest, expertise and knowledge on the phenomenon under study. Audit committee members are in the best position to express their opinions or views on the actions and activities of management as it concerns the integrity of financial reporting, having oversight responsibility to oversee these functions. They have this vantage position due to the statutory roles and the vested power and trust placed on them by the board of directors and shareholders alike.

7.2.4 The sample

The sample of the study is from companies listed on the NSE. The companies in the financial sector do not belong to the sample. As stated in Chapter Five, the financial sector’s regulatory agency, regulations and accounting policies are unique and distinct. The sample comprised of 74 non-financial companies listed on the NSE. They all have audit committees and disclosed the information necessary for this study. The sample size represents 37.56% of the total firms listed on the NSE as of December 31, 2014. The companies span across eleven sectors and varying industries, excluding the five industries in the financial sector.

The previous section disclosed the choice of audit committee members as sources of information or respondents for this study. In any sample, as observed by Christensen (1998), there must be population validity; population validity allows generalisations about the total population based on the study sample. The study sample comprised audit

committee members of 74 companies listed in the non-financial sector of the NSE in 2014. A previous statement revealed that the sample size represents 37.56% of the population. It would be proper to conclude that population validity exists.

7.3 Establishing the appropriateness of data

The appropriateness of data to answer a specific triangulation question is dependent on the quality and integrity of the data. When evaluating the suitability of a data set, it is worth considering the following aspects which are discussed next:

7.3.1 Data should be representative of the population

As stated by Adami and Kiger (2005), for data to be useful in triangulation, it must be representative of the target population (for example general population, companies listed on a stock exchange) and their location (for example urban, rural). Determining representativeness of dataset may require a review of the sampling methods (for example probability and non-probability), and sampling approaches (for example cluster, random or convenience) in the data gathering process (Pierce, 2008).

7.3.2 Consistency in data collection methods

Unfortunately, methods for data collection can change over time; for example, if a new programme manager or new organisation assumes responsibility for data collection, they may change the method used by their predecessor. However, the consistency of data collection is crucial, particularly for an accurate modelling of trend data. Consequently, the review of the data collection methods should determine if they have been consistent and, if not, how significant are the changes.

7.3.3 Ethical considerations should guide data collection

The relevant authority, in line with ethical requirements, approved the survey data collection procedures of this study. The Humanities & Social Sciences Research Ethics Committee (HSSREC), University of KwaZulu-Natal (UKZN), gave the necessary ethical approval for the study.

7.4 Data

Researchers in accounting and business obtain data from multiple sources depending on the objective and research design. In accounting, research data is vital and of great importance. Data sources are dependent on research design, research questions and availability of data. Information gathering can be time-consuming and monetarily

expensive. Using primary data sources present numerous advantages to researchers as well. Collection of primary data is the focus of the following section

7.5 Administration of the questionnaire

7.5.1 Instruments of data collection

The main decisions to be made in the questionnaire design relate to the type of questions in the study. The questionnaire formation depended on the review of the most relevant literature discussed and explained in Chapters Two, Three and Four of the study. The questionnaire used in this study translated the research objectives into specific questions, and the answers to the questions provided the data for hypotheses testing. Questionnaire design must take into consideration question formatting, instructions for completion, wording, rating, length of the questionnaire, and the cover page before pre-testing the questionnaire. It was crucial to observe all these issues while designing the questionnaire for this study.

7.5.1.1 Types of questions

There are different types of questions among which open-ended and closed-ended questions are the most common, and they both have their advantages and disadvantages. The questions in this study were closed-ended questions where the respondents were offered a set of answers and asked to select the one that most closely represented their views. While answers to closed-ended questions can be more elaborate, easy to ask and quick to answer, they require no writing by respondent or interviewer, and its analysis is less cumbersome. Their major drawback is that they may introduce bias, either by forcing the respondent to choose from given alternatives or by making the respondent select alternatives that might not have otherwise come to mind (Frankfort-Nachmias & Nachmias, 2008).

7.5.1.2 Question format

The general format is to present all possible answers and to have the respondents check the appropriate categories. As such, the questionnaire, in Appendix 1 allows the respondent to check a box against numbered groups of questions with five rankings for each question starting from 'strongly disagree' for the first rank to 'strongly agree' for the fifth.

7.5.1.3 Pre-testing-Pilot testing

The questionnaire was pre-tested in order to ensure the efficiency of the questions and to check ease of completion and to remove ambiguous questions. In this study, pre-testing was performed by administering the questionnaire on a sample of respondents in Lagos, Nigeria. Specifically, the respondents used in the pre-testing were mostly members of the Independent Shareholders Association of Nigeria (ISAN), at Ikeja in Lagos. This procedure resulted in enhancing the questionnaire in arriving at its final and accepted form, as shown in Appendix 1. The responses received from the pre-testing were then used for the pilot-testing.

7.5.1.4 Reliability and validity

Reliability analysis is concerned with including a scale that is free from random error, an error that does not occur consistently every time a measurement is taken (Diamantopoulos & Schlegelmilch, 2000). The objective of ensuring reliability is to ensure that responses are not too varied across periods so that a measurement taken at any point in time is reliable (Hair *et al.*, 2010), even though this is a one-off affair. The more commonly used measure of reliability is *internal consistency* which applies to the consistency among the variables in a summated scale. In internal consistency, the individual items or indicators of the scale should all be measuring the same construct and thus be highly inter-correlated (Churchill Jr, 1979; Nunnally & Bernstein, 1994). Because increasing the number of items, even with the same degree of intercorrelation, will increase the reliability value, researchers must place strict requirements for scales with many items.

The reliability with regards to survey research means that the study is replicable. The questionnaire was pre-tested to ensure that all questions are clear and unambiguous. Validity refers to the degree that the results represent what they purport to represent. Validity concerns are addressed when constructing the questionnaire. This study ensured reliability and validity by revealing several measures of consistencies in the study's results. The Cronbach alpha, the Kaiser-Meyer-Olkin (KMO) and Bartlett's all test for both reliability and validity, respectively.

7.5.1.5 Reliability and validity of the research instrument

Reliability defines the extent to which measures are free from error. Therefore, reliability analysis using Cronbach's alpha aims at testing the internal consistency of the items before using the questionnaire for the main study (Kothari, 2004). Sekaran and

Bougie (2013) suggested that a Cronbach's alpha lower than 0.60 is weak, while those from 0.70 and above is acceptable.

Validity, on the other hand, is a psychometric property of measurement to ensure proper wording of the content of the instrument, so that the data obtained can adequately reflect the phenomenon it purports to represent (Kothari, 2004). Therefore, one of the reasons why a pilot study of the questionnaire becomes necessary was to ensure face and content validity. According to Kaiser-Meyer-Olkin (KMO) and Bartlett's test, each variable is valid if the value obtained is more than 0.60. Subsequently, the pilot study test results of the questionnaire used in the survey are in Tables 7.1 to 7.4 below.

Table 7.1 shows the result of reliability examination of the variables for audit committee members' questionnaire. The Cronbach's alpha values for all variables ranged from 0.711 to 0.872. These results showed that all the constructs have acceptable internal consistency.

Table 7.1 Construct reliability for audit committee members' questionnaire

Variables	Number of Items	Cronbach's Alpha
<i>Prevalence of RAM</i>		
Question 16: Managers are involved in sales manipulations by attempting to boost sales during the year by granting simple credit terms or price discounts in order to achieve a certain level of earnings.	5	0.762
Question 17: Managers reduce expenditures such as selling, general and administrative, advertisements and research and development in order to achieve outcomes that will guarantee an advantage in terms of contractual obligations.	5	0.837
Question 18: Managers may increase earnings to avoid harsh debt agreements by increasing units produced beyond requirements to reduce the total cost per unit, which will eventually bring down the cost of sales.	5	0.719
Question 19: Manipulation of Sales, Discretionary expenses and productions cost occur with the primary aim of deceiving unsuspecting stakeholders to believe that reported earnings are achievable through normal operational business activities.	5	0.861
Question 20: RAM, either by sales, discretionary expenses or production, is an engagement meant to benefit the executives/management, which is capable of destroying the information quality of financial statements.	5	0.714
<i>Audit committee financial literacy</i>		
Question 21: Financial literacy means members' ability to understand financial statements, please rate the financial literacy of this company's audit committee between 1- 5 (1 for very weak and 5 for very strong).	5	0.753
Question 22: Audit committee members can assists management in identifying and assessing significant risks facing the company and suggesting ways of overcoming them.	5	0.737

Variables	Number of Items	Cronbach's Alpha
<i>Audit committee financial literacy continued</i>		
Question 23: I, as an audit committee member, lack a good understanding of the financial statements.	5	0.849
Question 24: The presence of a financially literate member will assist in reducing the managements' desire to manipulate real activities in Nigerian listed companies.	5	0.746
Question 25: The financial literacy of audit committee members makes no difference in the existence of RAM in Nigerian listed companies.	5	0.847
<i>Audit committee independence</i>		
Question 26: There is an atmosphere of openness and trust among audit committee members, and everyone feels free to speak out and pursue issues to a logical conclusion.	5	0.711
Question 27: Audit committee members have unhindered access to financial statement, internal control system reports, audit reports of the internal and external auditors and managements' report and responses to audit queries.	5	0.829
Question 28: Independence of audit committee members is capable of reducing the managements' motivations to manipulate real activities in Nigerian listed companies.	5	0.771
Question 29: Independence of audit committee members makes no difference on the managements' desire to manipulate real activities in Nigerian listed companies.	5	0.843
Question 30: The audit committee enjoys a smooth working relationship with both the internal and external auditors along with the board of directors.	5	0.725
<i>Audit committee meetings</i>		
Question 31: We have a sufficient number of meetings, convened appropriately to address essential financial reporting responsibilities.	5	0.852
Question 32: We are at liberty to invite the right individuals to attend our meetings, especially those with professional skills or knowledge on issues on the agenda.	5	0.775
Question 33: The proceedings of the audit committee meetings are not in a rush, and members have access to every item on the agenda well in advance. This culture affords members quality time of review before meetings.	5	0.791
Question 34: Audit committee meetings make no difference on the managements' falsification and manipulative desires.	5	0.744
Question 35: Audit committee meetings will enhance managements' falsification and manipulative tendencies.	5	0.842
<i>Audit committee female directorships</i>		
Question 36: The female audit committee members are accommodating.	6	0.872
Question 37: Female audit committee members exhibit more significant interpersonal relationship than their male counterpart.	6	0.741
Question 38: By the way they relate and associate with others, resolving issues becomes efficient and thorough when a female director is a member of the committee.	6	0.738
Question 39: Women need more considerations in terms of opportunities to become corporate directors in Nigeria, even if it means making it mandatory as is being contemplated in the United Kingdom and some other civilised countries.	6	0.846
Question 40: The presence of a female member in an audit committee will promote managements' desire to manipulate real activities in Nigerian listed companies.	6	0.726

Variables	Number of Items	Cronbach's Alpha
<i>Audit committee female directorships continued</i>		
Question 41: Female membership in audit committee makes no difference on the management's tendency at manipulating real activities in Nigerian listed companies.	6	0.819
<i>Audit committee multiple directorships</i>		
Question 42: State the directorships seats occupied either in an executive or non-executive capacity.	5	0.713
Question 43: Audit committee member who holds several directorship seats in too many companies may have little time in fulfilling their responsibilities in such capacity.	5	0.724
Question 44: Multiple directorships promotes experience and skills of such director, which eventually becomes an advantage and make them useful as audit committee members.	5	0.867
Question 45: The presence of an audit committee member with several directorship seats will reduce RAM in Nigerian listed companies.	5	0.738
Question 46: The presence of an audit committee member with several directorship seats makes no difference on whether management engages in RAM or not.	5	0.821
<i>Audit committee size</i>		
Question 47: There is the right combination of members in terms of skills, experience and basic knowledge of the operational activities of the company.	5	0.837
Question 48: The audit committee meetings always end in disagreement and misunderstanding, which is mostly attributable to its size.	5	0.718
Question 49: The size of the audit committee enables shared responsibilities among members which allow resolving issues in details and timely.	5	0.839
Question 50: The audit committee size makes no difference in the likelihood of management indulging in falsifications and manipulations of reported earnings in Nigerian listed companies.	5	0.756
Question 51: Audit committee size will promote managements' aspirations to manipulate real activities in Nigerian listed companies.	5	0.832
<i>SEC 2003 code of corporate governance</i>		
Question 52: Audit committee size will promote managements' aspirations to manipulate real activities in Nigerian listed companies.	3	0.734
Question 53: The introduction of the code of corporate governance in 2003 does not have any effect on RAM in Nigerian listed companies.	3	0.716
Question 54: The introduction of the code of corporate governance in 2003 has aided managements' desire to manipulate real activities in Nigerian listed companies.	3	0.847
Variables	Number of Items	Cronbach's Alpha
<i>SEC 2011 code of corporate governance</i>		
Question 55: The new code introduced in 2011 is not in any way different from the previous one introduced in 2003.	3	0.841
Question 56: The change of the code of corporate governance in 2011 does not affect management's desire to manipulate real activities in Nigerian listed companies.	3	0.737
Question 57: The change of the code of corporate governance in 2011 has encouraged managements' desire to manipulate real activities in Nigerian listed companies.	3	0.751

Based on the pilot test results in Table 7.1, the variables in the audit committee members' questionnaire are reliable because the Cronbach's Alpha Coefficient ranges from 0.711 to 0.872. This, in the opinion of Sekaran and Bougie (2013), is considered acceptable. Table 7.2 shows the validity test of the variables for audit committee members' questionnaire. These results showed that all the constructs have face and content validity.

Table 7.2: Construct validity test using Kaiser-Meyer-Olkin (KMO) and Bartlett's test for audit committee members' questionnaire

Variables	Number of items	Cronbach's alpha	Significant level
<i>Prevalence of RAM</i>			
Question 16: Managers are involved in sales manipulations by attempting to boost sales during the year by granting simple credit terms or price discounts in order to achieve a certain level of earnings.	5	0.751	0.000
Question 17: Managers reduce expenditures such as selling, general and administrative, advertisements and research and development in order to achieve outcomes that will guarantee an advantage in terms of contractual obligations.	5	0.824	0.000
Question 18: Managers may increase earnings to avoid harsh debt agreements by increasing units produced beyond requirements to reduce the total cost per unit, which will eventually bring down the cost of sales.	5	0.801	0.000
Question 19: Manipulation of Sales, Discretionary expenses and productions cost occur with the primary aim of deceiving unsuspecting stakeholders to believe that reported earnings are achievable through normal operational business activities.	5	0.792	0.000
Question 20: RAM, either by sales, discretionary expenses or production, is an engagement meant to benefit the executives/management, which is capable of destroying the information quality of financial statements.	5	0.703	0.000
<i>Audit committee financial literacy</i>			
Question 21: Financial literacy means members' ability to understand financial statements, please rate the financial literacy of this company's audit committee between 1- 5 (1 for very weak and 5 for very strong).	5	0.762	0.000
Question 22: Audit committee members can assists management in identifying and assessing significant risks facing the company and suggesting ways of overcoming them.	5	0.743	0.001
Question 23: I, as an audit committee member, lack a good understanding of the financial statements	5	0.815	0.000
Question 24: The presence of a financially literate member will assist in reducing the managements' desire to manipulate real activities in Nigerian listed companies.	5	0.769	0.000
Question 25: The financial literacy of audit committee members makes no difference in the existence of RAM in Nigerian listed companies.	5	0.838	0.000

Variables	Number of items	Cronbach's alpha	Significant level
<i>Audit committee independence</i>			
Question 26: There is an atmosphere of openness and trust among audit committee members, and everyone feels free to speak out and pursue issues to a logical conclusion.	5	0.728	0.001
Question 27: Audit committee members have unhindered access to financial statement, internal control system reports, audit reports of both the internal and external auditors and managements' report and responses to audit queries.	5	0.837	0.000
Question 28: Independence of audit committee members is capable of reducing the managements' motivations to manipulate real activities in Nigerian listed companies.	5	0.798	0.001
Question 29: Independence of audit committee members makes no difference on the managements' desire to manipulate real activities in Nigerian listed companies.	5	0.814	0.000
Question 30: The audit committee enjoys a smooth working relationship with both the internal and external auditors along with the board of directors.	5	0.708	0.000
<i>Audit committee meetings</i>			
Question 31: We have a sufficient number of meetings, convened appropriately to address essential financial reporting responsibilities.	5	0.864	0.000
Question 32: We are at liberty to invite the right individuals to attend our meetings, especially those with professional skills or knowledge on issues on the agenda.	5	0.789	0.000
Question 33: The proceedings of the audit committee meetings are not in a rush, and members have access to every item on the agenda well in advance. This culture affords members quality time of review before meetings.	5	0.806	0.002
Question 34: Audit committee meetings make no difference on the managements' falsification and manipulative desires.	5	0.738	0.000
Question 35: Audit committee meetings will enhance managements' falsification and manipulative tendencies.	5	0.815	0.000
<i>Audit committee female directorship</i>			
Question 36: The female audit committee members are accommodating.	6	0.896	0.001
Question 37: Female audit committee members exhibit more significant interpersonal relationship than their male counterpart.	6	0.756	0.000
Question 38: By the way they relate and associate with others, resolving issues becomes efficient and thorough when a female director is a member of the committee.	6	0.716	0.000
Question 39: Women need more considerations in terms of opportunities to become corporate directors in Nigeria, even if it means making it mandatory as is being contemplated in the United Kingdom and some other civilised countries.	6	0.799	0.002
Question 40: The presence of a female member in an audit committee will promote managements' desire to manipulate real activities in Nigerian listed companies.	6	0.731	0.000
Question 41: Female membership in audit committee makes no difference on the management's tendency at manipulating real activities in Nigerian listed companies.	6	0.836	0.001

Variables	Number of items	Cronbach's alpha	Significant level
<i>Audit committee multiple directorships</i>			
Question 42: State the directorships seats occupied either in an executive or non-executive capacity.	5	0.721	0.000
Question 43: Audit committee member who holds several directorship seats in too many companies may have little time in fulfilling their responsibilities in such capacity.	5	0.709	0.000
Question 44: Multiple directorships promotes experience and skills of such director, which eventually becomes an advantage and make them useful as audit committee members.	5	0.829	0.000
Question 45: The presence of an audit committee member with several directorship seats will reduce RAM in Nigerian listed companies.	5	0.743	0.000
Question 46: The presence of an audit committee member with several directorship seats makes no difference on whether management engages in RAM or not.	5	0.872	0.000
<i>Audit committee size</i>			
Question 47: There is the right combination of members in terms of skills, experience and basic knowledge of the operational activities of the company.	5	0.819	0.000
Question 48: The audit committee meetings always end in disagreement and misunderstanding, which is mostly attributable to its size.	5	0.731	0.000
Question 49: The size of the audit committee enables shared responsibilities among members which allow resolving issues in details and timely.	5	0.826	0.004
Question 50: The audit committee size makes no difference in the likelihood of management indulging in falsifications and manipulations of reported earnings in Nigerian listed companies.	5	0.739	0.000
Question 51: Audit committee size will promote managements' aspirations to manipulate real activities in Nigerian listed companies.	5	0.799	0.000
<i>SEC 2003 code of corporate governance</i>			
Question 52: Audit committee size will promote managements' aspirations to manipulate real activities in Nigerian listed companies.	3	0.742	0.000
Question 53: The introduction of the code of corporate governance in 2003 does not have any effect on RAM in Nigerian listed companies.	3	0.718	0.000
Question 54: The introduction of the code of corporate governance in 2003 has aided managements' desire to manipulate real activities in Nigerian listed companies.	3	0.834	0.000
<i>SEC 2011 code of corporate governance</i>			
Question 55: The new code introduced in 2011 is not in any way different from the previous one introduced in 2003.	3	0.851	0.000
Question 56: The change of the code of corporate governance in 2011 does not affect management's desire to manipulate real activities in Nigerian listed companies.	3	0.704	0.000
Question 57: The change of the code of corporate governance in 2011 has encouraged managements' desire to manipulate real activities in Nigerian listed companies.	3	0.755	0.000

Based on the pilot results in Table 7.2, the variables in the audit committee members' questionnaire are valid because the KMO measures obtained are all more than 0.6.

Table 7.3 below shows the summary of reliability examination of the variables for audit committee members' questionnaire. The Cronbach's alpha values for all variables ranged from 0.779 to 0.801. These results showed that all the constructs have acceptable internal consistency. In the opinion of Sekaran and Bougie (2013), this is considered acceptable.

Table 7.3: Construct reliability test summary for audit committee members' questionnaire

Variables	Number of items	Cronbach's alpha
Prevalence of RAM	5	0.779
Audit committee financial literacy	5	0.786
Audit committee independence	5	0.776
Audit committee meetings	5	0.801
Audit committee female directorship	6	0.790
Audit committee multiple directorship	5	0.773
Audit committee size	5	0.796
SEC 2003 code of corporate governance	3	0.766
SEC 2011 code of corporate governance	3	0.776

Table 7.4 shows the summary of the validity of the variables for audit committee members' questionnaire. These results showed that all the constructs have a face and content validity.

Table 7.4: Construct validity test summary using KMO and Bartlett's test for audit committee members' questionnaire

Variables	Number of items	Cronbach's alpha	Significant level
Prevalence of RAM	5	0.774	0.000
Audit committee financial literacy	5	0.785	0.000
Audit committee independence	5	0.777	0.000
Audit committee meetings	5	0.802	0.000
Audit committee female directorship	6	0.789	0.000
Audit committee multiple directorship	5	0.775	0.000
Audit committee size	5	0.783	0.000
SEC 2003 code of corporate governance	3	0.765	0.000
SEC 2011 code of corporate governance	3	0.770	0.000

Based on the pilot result in Table 7.4, the variables in the audit committee members' questionnaire are valid because the KMO measures obtained are all more than 0.6

7.5.2 Administering the questionnaire

The survey data collection was by administering questionnaires to all the current audit committee members of sampled companies as at the time of data collection. It became needful to use three different mediums in order to ensure a reasonable response rate. Firstly, it was sent electronically to all sampled companies' chief executives; secondly, hard copies were delivered physically to the corporate headquarters of 61 companies domiciled in and around Lagos; and lastly, because few had previously responded, 71 sets were posted with a self-addressed envelope enclosed. The self-addressed envelope was to facilitate a prompt reply. It became necessary to maintain the same postal address throughout the data collection, which was the NSE Library, 1-2, Custom St, Marina-Lagos. Despite all these efforts, the response rate was still low. The next section discusses the details of the survey data collection.

It is important to restate that this study adopted a multimethod approach, and this is due to some advantages inherent in such research as pointed out earlier. Primary data collection is the second stage of the data collection for this study after the secondary data collection stage. This stage was characterised by challenges just as was the case with the previous data collection stage. The primary data collection is through the means of a closed-ended questionnaire with targeted respondents totalling 400 which was the total number of audit committee members available for all the sampled firms as of December 31, 2016 (the survey data collection was in 2017). It is essential to state here that both the secondary and primary data collection spanned two years, between February 2016 and January 2018. There was a covering letter from the supervisor that introduced the researcher to the participant. This introductory letter and a consent letter (obtained from the University's Ethics Office) were attached to the questionnaire sent to each participant. A copy of both the covering and the consent letters are in the appendices.

7.5.2.1 Response rate

Despite the three ways of administering the survey, only 96 duly filled questionnaires came back out of the 400 distributed. This translates to a response rate of 24%, which is still a low response rate. This response rate as low as it might seem, still looks better than those reported by several other surveys. For example, Trahan and Gitman (1995) reported a response rate of 12% in a survey mailed to 700 CFOs, while Graham and Harvey (2001) obtained a 9% response rate for 4,400 faxed surveys. Brav, Graham,

Harvey, and Michaely (2005) had a 16% response rate. Melhem (2003) had a much better response rate (69%) in a study that examined the influence of customer-contact employees' capabilities on customer satisfaction in Jordan Banking Sector. The data collection took three months to accomplish. The survey data analysis of this study is therefore on the 96 responses received.

7.6 Techniques of data analysis

The statistical methods adopted depend on the data collected and the relationship between the methods and the research objectives. As a result, this study used what is relevant to the research questions and framework in tandem with the data collected. The analysis of survey data (obtained through the administered questionnaires) used descriptive statistics and logit regression. The triangulation of the secondary and survey data analyses was to take advantage of the strengths inherent in these models and to reduce the weaknesses therein. The subsequent subsections highlight what to expect at each of the stages of the analyses shown in the next chapter.

7.6.1 Quantitative analysis of primary data

To analyse collected data according to Marczyk, DeMatteo, and Festinger (2005), three phases are involved: preparation of data for analysis, analysing the data, and interpretation of analysed results. The process of preparing the data collected from questionnaires for analysis was facilitated and fast-tracked using a Microsoft excel spreadsheet. It allowed for the accurate transfer of both the type and content of questions into the formats usable in the STATA package. The questionnaires received were reviewed for accuracy of scaling, organised to ease coding and tabulation, and to ensure alignment with all the variables involved.

Missing data are a common occurrence in a quantitative study, and there is no consensus opinion in the literature regarding a cut-off percentage that forms an acceptable amount of missing data that validates statistical analysis and results (Dong & Peng, 2013). Enders (2003) indicated a 15 per cent rate of missing data as a common occurrence within educational and psychological studies, while Bennett (2001) opined that missing data above 10 per cent is too large and it is capable of biasing the results when analysed. For this study, all questionnaires returned were almost 100 per cent completed, and it was reasonable to conclude that there were no cases of missing data.

To meet the stated objectives and to answer research questions, according to Saunders *et al.* (2012), it is imperative to analyse and interpret data obtained from any study. Four different reasons were pointed out by Kerlinger (1986) for using statistical analysis, and they include:

- (a) the reduction of large quantities of data to a manageable and understandable form/size;
- (b) to facilitate the study of population and samples;
- (c) to allow decision-making; and
- (d) to deduce reliable inferences.

The previous sections discussed the data collection method and the instrument of the collection. The following section discusses the statistical tests used to report the survey responses and to assess any significant differences in responses.

A categorisation of statistical analysis can be either exploratory and confirmatory, or descriptive and inferential. It all depends on the utilisation since these analytical methods can overlap the categorisations that are deemed artificial (Hand, 2001). An exploratory analysis seeks to discover concepts or new structures right from the onset of a given perception, while a confirmatory approach, on the other hand, tries to endorse or discard a given theory (Engel, Hayes, & Wang, 2010).

According to De Vaus (2001) and Pallant (2001), statistical analysis should include both descriptive and inferential types of analysis. The next section discusses the statistical techniques of analysing the survey data.

7.6.2 The logistic model for assessing the impact of audit committee attributes on RAM

The logistic model is useful in assessing the effect of audit committee attributes on RAM. The logistic model design analyses survey data to reflect the choice between two alternatives. In this case, it is that of impact and non-impact. The choice of logistic model is because, in the case of the survey data collection, the response is in a 5-Likert scale form which eventually is subject to a binomial process and takes the value 0 for disagree and 1 for agree.

Regression also offers an opportunity for imposing constant parameters over the entire distribution. The logistic method gives asymptotically efficient and consistent parameter estimates (Borko, 2018). Indeed, the logistic approach produces statistically sound results (Borko, 2018; Gujarati & Porter, 2009). The probability of audit committee attributes having an impact on RAM is the value of the cumulative distribution functions of Z, which is a function of the explanatory variables. The logistic model is thus:

$$Prob(Non - poor) = 1 - F(Z) = e^Z / (1 + e^Z) = F(\beta_0 + \beta_1 X) \dots\dots\dots (6)$$

Where:

$F(Z) = e^Z / (1 + e^Z) = F(\beta_0 + \beta_1 X)$ is equal to the cumulative logistic distribution, representing the probability of impact on RAM. Z is the RAM prevalence line. β is the vector of parameters and X is a vector of the explanatory variables which will contain variables of audit committee attributes and RAM indicators.

For non-impact, the logit model is thus:

$$Prob(Non - poor) = 1 - F(Z) = e^Z / (1 + e^Z) \dots\dots\dots (7)$$

Equations 6 and 7 become as follows:

$$\frac{F(Z)}{1-F(Z)} = \frac{1+eZi}{1+e-Zi} \dots\dots\dots (8)$$

Equation 8 is the odds ratio; it is the ratio of the probability that an audit committee attribute will impact RAM to the probability that it will not impact RAM. The natural log of equation 8 gives:

$$L_i = L_n \left(\frac{F(Z)}{1-F(Z)} \right) = Z = (\beta + (LX_i \dots KX_k)) \dots\dots\dots (9)$$

Equation 9 will be for the estimation of the logistic model. Therefore, the model for studying the impacts of audit committee attributes on RAM will be on the following empirical logistic specification.

$$L_i = L_n \left(\frac{F(Z)}{1-F(Z)} \right) = \beta_0 ACIND + \beta_1 ACFLT + \beta_1 ACMTG + \beta_1 ACMDR + \beta_1 ACFDR + \beta_1 ACSZE + \beta_1 ICCGV + \beta_1 CCCGV \dots\dots\dots (10)$$

$F(Z) = 1$ if an attribute impact RAM and $1 - F(Z) = 0$ if an attribute does not impact RAM.

$\left(\frac{F(Z)}{1-F(Z)}\right)$ is equal to the odds ratio.

The description of the variables used in the logistic model is as formulated in the questionnaire.

7.7 Summary

The methodology and research design tends to be highly structured within the positivist paradigm, that is, multimethod research. Therefore, this study utilises triangulation, that is, methodological triangulation. Quantitative data were collected sequentially from both primary and secondary sources. The methodology and analysis of secondary data are in Chapters Five and Six. Consistent with this view, this chapter presented the survey research design, population and sample selection procedures and the preparation for the statistical analyses of the survey data.

The chapter has explained the research approach adopted in this study. It presented the factors that have influenced the choice of these techniques and approaches. The chapter discussed the procedures and techniques of the sampling and survey data collection. It also reported the procedures followed in the design and development of the questionnaire. This chapter discussed the conduct of the pilot study to improve the questionnaire and the benefits accruing from the piloting. It provided details of the questionnaire survey procedures followed in the study. In other words, the chapter provided an elaborate picture of the methodological research issues of the survey study and discussed how these become achievable. In brief, this survey research obtained primary data by administering questionnaires to the current audit committee members of 74 (non-financial sector) firms listed on Nigerian Stock Exchange (NSE) as at the time of data collection to investigate the relationship between RAM and Audit Committee Attributes. The next chapter presents in more detail the survey data analysis and discussion of the empirical findings thereon.

CHAPTER EIGHT: ANALYSIS AND DISCUSSION OF PRIMARY DATA FINDINGS

8.1 Introduction

Chapter Seven set out the background for this chapter, presenting the adopted survey research design, detailing the sampling methods and procedure, the instrument used in collecting data, collection of data and analytical techniques involved. The philosophical assumptions, study research design, and the triangulation concerns of this study are in Chapter Five. This chapter presents the primary data analysis and discussion of the results of the questionnaire. This chapter aims to analyse, present and discuss the findings of the questionnaire survey. The chapter follows this structure: Section 8.2 presents the background of the respondents, section 8.3 highlights the descriptive statistics of their responses, section 8.4 discusses the statistical test results of the survey data, and finally, section 8.5 summarises the chapter.

8.2 Background of the respondents

The respondents' background is essential to appreciate the level of their understanding of the topic. It comprises the bio-data of the respondents, and the committee's characteristics to which they belong. Questions that address this are in section A of the questionnaire which comprised 15 questions. The frequency distributions of their responses are in this section to facilitate a better understanding of their background.

Table 8.1: Gender

	Male	%	Female	%	Total	%
Respondents	90	93.7	6	6.3	96	100

Table 8.1 presents the response to the question of gender (section A question 1). It shows that 90 (93.7%) respondents were male, while six (6.3%) were female. It indicates that most of the audit committee members that participated in the survey are male. It suggests that the current composition of audit committee members among the firms sampled is gender-biased. It, therefore, confirms the result in Chapter Six, Table 1, Panel B, under audit committee female directorship, which reveals that 60.8% of the entire sampled firms under this study do not have female members in their audit committee, a further confirmation of the gender-biasedness of companies listed in NSE.

Table 8.2: Number of members in audit committee

Respondents	%	Number of members
4	4.2	2
6	6.2	3
15	15.6	4
3	3.1	5
63	65.6	6
5	5.2	7
96	100	

The next question requested respondents to state the number of members in the audit committee to which they belong (section A question 2). These responses are in Table 8.2. The frequency distribution of their responses shows that 63 (65.6%) respondents belong to an audit committee with six members. It indicates that many of the audit committees of the sampled firms have a membership of six directors. However, 15 (15.6%) respondents belong to an audit committee that has four members. It shows that for most of the respondents, the number of members in audit committees ranges between four and six. It confirms the result in Chapter Six, Table 6.1, Panel B, under audit committee size, which reveals that 63.5% of the entire sampled firms under this study have audit committees comprising of six members.

Table 8.3: Number of non-executive directors in the audit committee

Respondents	%	Number of non-executive directors
30	31.3	2
63	65.6	3
3	3.1	6
96	100	

The results in Table 8.3 are the responses to section A question 3, that is, the number of non-executive directors in the audit committee. Most of the respondents (65.6%) stated that there are three non-executive directors among the audit committee members. Precisely 31.3% of them stated that two of the members are non-executive directors. With the average size of the audit committee being six, the implication is that the representation of non-executive directors in the composition of the audit committee members of most of the sampled firms is adequate. It is a confirmation of the result in Chapter Six, Table 6.1, Panel B, under audit committee independence, which revealed that 46.9% of the entire sampled firms in this study have an audit committee comprising of six non-executive members, that is, an audit committee devoid of executive directors.

Table 8.4: Status as the chairman of the audit committee

Respondents	%	Status
21	21.9	Yes
75	78.1	No
96	100	

Table 8.4 indicates whether the respondent is the audit committee chairman. The question that addresses this is “are you the chairman of the audit committee?” (section ‘A’ question 4). The responses show that 78.1% of the respondents are not the chairmen of the audit committee to which they belong while 21.9% are the chairmen of the audit committee. As 21.9% of the respondents are chairmen, authoritative answers on the decision-making process of the audit committee are possible. Since only one person can be chairman, 21.9% is a good representation of chairmen of audit committees represented among the respondents.

The responses in Table 8.5 show that 33.3% of the respondents have been in the audit committee of the firms for three years, and 71.9% (33.3+15.6+11.5+11.5) have been in the audit committee of the firms for between three to six years.

Table 8.5: Number of years served as audit committee member

Respondents	%	Number of years served
4	4.2	1
19	19.8	2
32	33.3	3
15	15.6	4
11	11.5	5
11	11.5	6
2	2.1	7
1	1.0	8
1	1.0	11
96	100	

It reveals that many of the respondents are familiar with the firms in which they serve as audit committee members. It further gives credibility to the answers on the activities of the firms in the last three years as being an audit committee member of the firms can give them ample opportunity of getting well acquainted with the operations within the firm.

Since the current firm might not be the first firm the audit committee member is serving as an audit committee member, it is appropriate to investigate the numbers of years that

the respondent has served as an audit committee member generally, as a proxy for experience with audit matters.

Table 8.6: Number of years served as audit committee member generally

Respondents	%	Number of years served
1	1.0	1
7	7.3	2
20	20.8	3
10	10.4	4
11	11.5	5
15	15.6	6
7	7.3	7
3	3.1	8
7	7.3	9
6	6.2	10
3	3.1	11
1	1.0	12
2	2.1	15
1	1.0	18
2	2.1	25
96	100	

Table 8.6, and in the questionnaire, section A question 6, addressed this and the analysis shows that 20.8% of the respondents have had three years' experience as an audit committee member with 58.3% (20.8+10.4+11.5+15.6) of the respondents having served for between three to six years. It suggests that the audit committee members included in the analysis are experienced personnel who are knowledgeable about the notable roles and responsibilities of the audit committees. It, therefore, increases the expectation of getting appropriate responses to questions that require audit committee experience.

The responses to section 'A' question 7, which sought to know the number of female members in the audit committee of the firm is in Table 8.7. The results indicate that 37.2% of the respondents stated that there is one female member in the audit committee where they are currently serving; 28.1% reported that two female members are in their audit committee. Generally, there are more male members in the audit committees of the sampled firms than female members (as evidenced in Table 6.1, Panel B). Precisely 31.2% of this subset indicated that there is no female member in their audit committee.

Table 8.7: Numbers of female members in the firm's audit committee

Respondents	%	Number of Female members
30	31.2	None
36	37.5	1
27	28.1	2
3	3.1	3
96	100	

The 31.2% of them which stated that their audit committee has no female member is an indication that the current compositions of the audit committees of the firms are gender-biased. This response corroborates the response in Table 8.1 and a confirmation of the result in Chapter Six, Table 1, Panel B, under audit committee female directorship, which reveals that 60.8% of the entire sampled firms do not have female members, while 33.7% have only one female member in their audit committee.

Table 8.8: Status as the chairman of the board of directors

Respondents	%	Status
96	100	No
96	100	

Table 8.8 shows that none of the audit committee members sampled is the current chairman of the board of directors of their respective firms in which they are serving as an audit committee member. It may mean that there is more likelihood of getting relatively objective answers to questions on the corporate governance of the firms.

Table 8.9: Numbers of meetings held in the financial year

Respondents	%	Number of meetings
2	2.1	2
46	47.9	3
26	27.1	4
22	22.9	5
96	100	

The study also investigated the frequency of the audit committees' meetings. It seeks to verify the number of meetings held in the financial year that just ended. The response to this item (section 'A' question 9) is in Table 8.9. The responses show that 46 (47.9%) of the audit committee members stated that their audit committee met three times within the financial year, while 26 (27.1%) reported that they met at least once a quarter within the financial year. Thus, the audit committee's meetings of the sampled firms are relatively regular during the financial year. Most of the sampled firms met either three or four times within the year under review. Menon and Williams (1994) consider audit committee meetings that are less than two in a year as too few to make an impact in

pursuing their responsibilities diligently. It confirms the result in Chapter Six, Table 6.1, Panel B, under audit committee meeting frequency, which reveals that 47.7% of the sampled firms in this study met three times during the period. The results are closely related because the closest frequency to this is 30.9% which accounts for sampled firms that met four times within the same period. The frequencies at the two extremes are insignificant.

Table 8.10: Possession of audit committee charter

Respondents	%	Possession of charter
58	60.4	Yes
38	39.6	No
96	100	

The charter of the audit committee gives legal backing to the audit committee, and it stipulates the responsibilities and the general guiding principles of the audit committee. The study investigated whether the audit committee to which the respondent belongs had an audit committee charter. The responses are presented in Table 8.10, which shows that 60.4% of the sampled audit committee members indicated that their audit committee has a charter. It implies that the majority of the audit committees covered in the study are adequately constituted and guided for effective functioning. The charter is similar to the audit committee's constitution, which is subject to periodic reviews by the board, written therein are the terms of reference of the committee (S. 11.1.3 NCCG 2018).

Table 8.11: Academic qualifications of members

Respondents	%	Academic qualifications
52	54.2	Bachelor of Science (B. Sc.)/Higher National Diploma (HND)
5	5.2	Ordinary National Diploma (OND)
23	24.0	Postgraduate Diploma (PGD)
16	16.7	Others
96	100	

The audit committee members' academic qualifications are in Table 8.11. The results indicate that most of the members of the audit committee have the requisite academic qualifications that qualify them to serve as an audit committee member. This item reveals the membership composition which indicates that 54.2% have a first degree or a Higher National Diploma (HND) in disciplines related to accounting and finance, and 24% have a post-graduate diploma (PGD) in relevant disciplines. These findings suggest that the respondents have the relevant knowledge to serve on the committee.

The findings are in alignment with the descriptive statistics in Table 6.1, Panel A and B, which reveal that 81% of the sampled firms have members that are financially literate on their audit committees.

Table 8.12: Professional qualifications/other relevant experience of members

Respondents	%	Professional qualifications/other
27	28.1	Institute of Chartered Accountants of Nigeria (ICAN) member
45	46.9	Banking or investment management experience
5	5.2	Chief Financial Officer (CFO)
19	19.8	Certified National Accountant (CNA).
96	100	

The study further investigated the possession of professional qualification as well as other relevant experience that qualifies them to serve as audit committee members. Responses to the question on other experience besides qualifications are in Table 8.12. The results indicate that 47.9% (28.1 + 19.8) of the respondents, apart from their academic qualifications, are either chartered accountants or certified national accountants. Precisely 46.9% of them have had experience in banking, finance or investment management. It suggests that the majority of the respondents understand basic accounting and audit principles to enable them to function well as audit committee members. In the opinion of Krishnan and Visvanathan (2008), only accounting/financial experts help in constraining RAM. All the codes of corporate governance in Nigeria recommend that every established audit committee must have at least one accounting/financial expert, as shown in Table 2.2, Chapter Two.

Table 8.13: Audit committee member as an employee of the company within the last five years

Respondents	%	Response
9	9.4	Yes
87	90.6	No
96	100	

The need to ensure objective responses from the respondents prompted the question: “whether they were the company’s employee within the last five years?” (Section A, question 13). Table 8.13 indicates that the majority of the respondents, (90.6%) were not staff members of the company in the last five years. Therefore, the responses of the audit committee members are likely to be unbiased and appropriate for analytical purposes.

As some of the audit committee members could be related to the company in diverse ways and this might have implications on their performance as audit committee members, it was necessary to ask respondents if they have any other relationship with the company besides their membership of the audit committee. The analysis of the responses in Table 8.14 indicates that 89.6% of the audit committee members have no other relationship with the company apart from being an audit committee member.

Table 8.14: Relationship with the company apart from being an audit committee

Respondents	%	Relationship with the company
1	1.0	Management consultant
4	4.2	Relations to staff or executive director
5	5.2	Customer
86	89.6	None
96	100	

Nevertheless, 5.2% of them are customers of the company while just 4.2% are related to a staff member or executive director of the company. Again, these statistics indicate that the responses to the question may be considered objective as the respondents are not dependent on any other obligations or benefits from the company they are representing as an audit committee member.

8.3 Assessment of prevalence of RAM

As an extension of the descriptive analysis, the study further investigated respondents' opinions on the prevalence of RAM in the sampled companies. In alignment to Chapter Six, it is appropriate to investigate the same three types of RAM, which include sales manipulation, discretionary expenses manipulation and production cost manipulation. Table 8.15 shows the responses to two statements which capture respondents' opinions on the prevalence of RAM in Nigerian listed companies. Table 8.16 and Figures 8.1 – 8.3 gives a pictorial analysis of the three types of manipulations mentioned above.

Table 8.15 shows that there exists a strong belief by the respondents that there is a high prevalence of RAM in Nigerian listed companies. Precisely 71 (73.96%) respondents agree that there are RAM practices in the listed firms in Nigeria, with a mean score of 4.12. This affirmative rate is quite significant. The responses support the empirical results in Chapter Six, under RAM measurement, which reveals the prevalence of RAM among sampled firms.

Table 8.15: Prevalence of RAM in Nigerian listed companies

	A	%	I	%	D	%	Mn	S/D
Question 19: Manipulation of Sales, Discretionary expenses and productions occur with the primary aim of deceiving unsuspecting stakeholders to believe that reported earnings are achievable through normal operational business activities.	65	67.71	10	10.42	21	21.88	3.54	1.11
Question 20: RAM, either by sales, discretionary expenses or production, is an engagement meant to benefit the executives/management, which is capable of destroying the information quality of financial statements.	73	76.04	12	12.50	11	11.46	4.06	1.06
Average score	71	73.96	12	12.5	13	13.54	4.12	1.12

Note: A = agree; I = indifference; D = disagree

Both Table 8.16 and Figure 8.1 show the prevalence rate of RAM that is traceable to sales manipulation among the companies. The inference from the results is that many of the respondents believe that RAM is a function of sales manipulations in the companies; that sampled firms might be engaging in the offering of cash discounts or granting of lenient credit terms among others. In literature, these are some of the ways sales manipulations are carried on (Roychowdhury, 2006).

Table 8.16: Prevalence of the three types of RAM in this study

	Sales manipulations		Discretionary expenses manipulations		Production cost manipulations	
Responses	Respondents	%	Respondents	%	Respondents	%
Strongly disagree	7	7.3	0	0	10	10
Disagree	31	32.3	39	40.6	26	27
Indifference	6	6.2	5	5.2	38	39
Agree	49	51.0	46	47.9	17	17
Strongly agree	3	3.1	6	6.2	5	
Total	96	100	96	100	96	10

Specifically, 39.6% (7.3 + 32.3) of the respondents disagreed with this assertion, while 54.1% of the respondents agree that sales manipulations are prevalent among the listed companies. Furthermore, the responses are shown diagrammatically in Figure 8.1. Chapter Six empirically revealed the existence of income-increasing RAM through sales manipulation among listed firms in Nigeria.

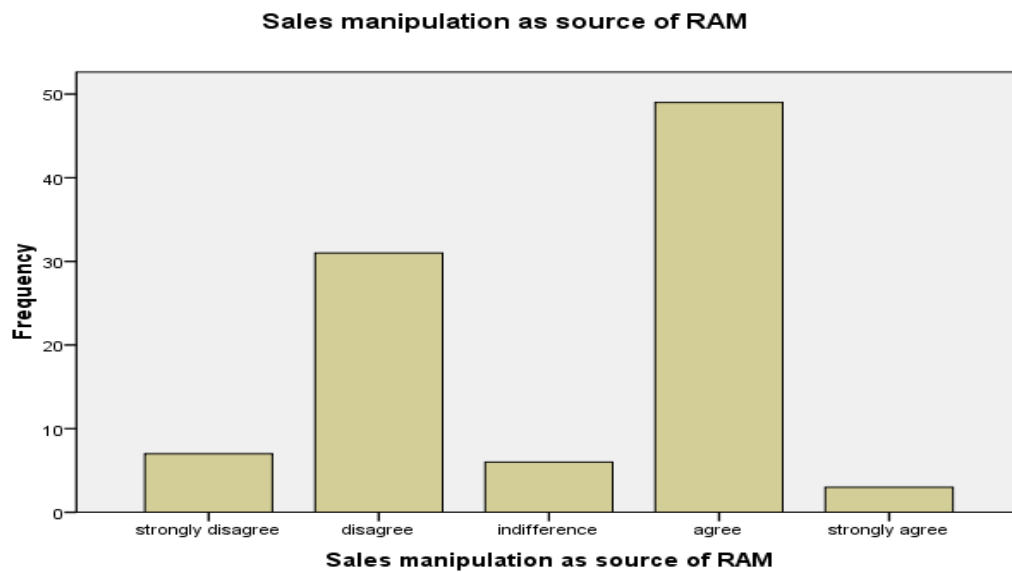


Figure 8.1 Sales manipulations as a source of RAM

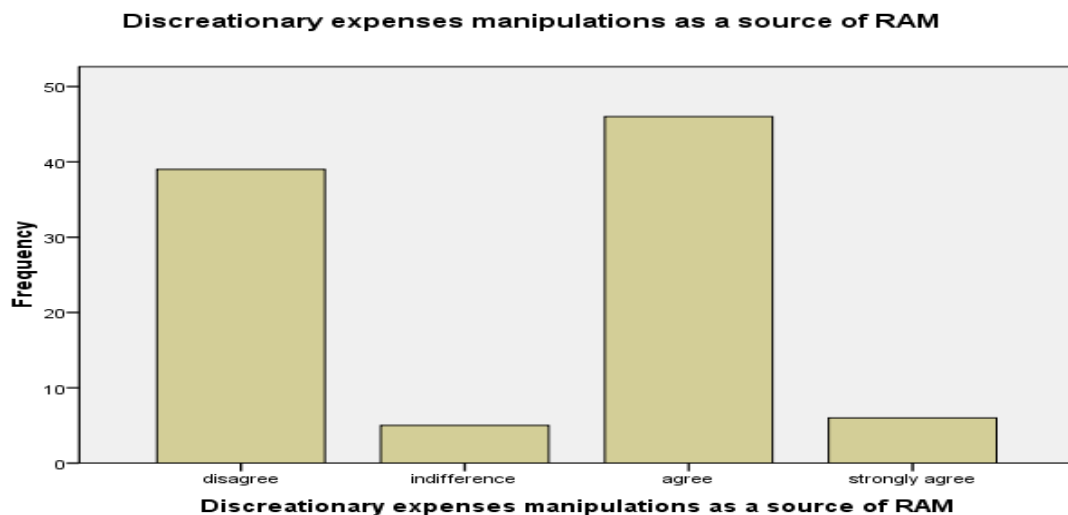


Figure 8.2 Discretionary expenses manipulations as a source of RAM

The views of the respondents as to the extent to which RAM through discretionary expenses manipulations exists among the listed companies are in Table 8.16 and Figure 8.2. The results show that 54.1% (47.9+6.2) of the respondents are of the view that sampled companies unnecessarily cut discretionary expenses to reduce the volume of their period expenditure and in this way engage in manipulations to increase their earnings. However, 40.6% of respondents disagreed with this statement, but the percentages of the respondents that agree with the statement are more significant. It confirms the empirical result in Chapter Six that firms listed in NSE are engaging in

income-increasing manipulations of earnings through reduction of discretionary expenses.

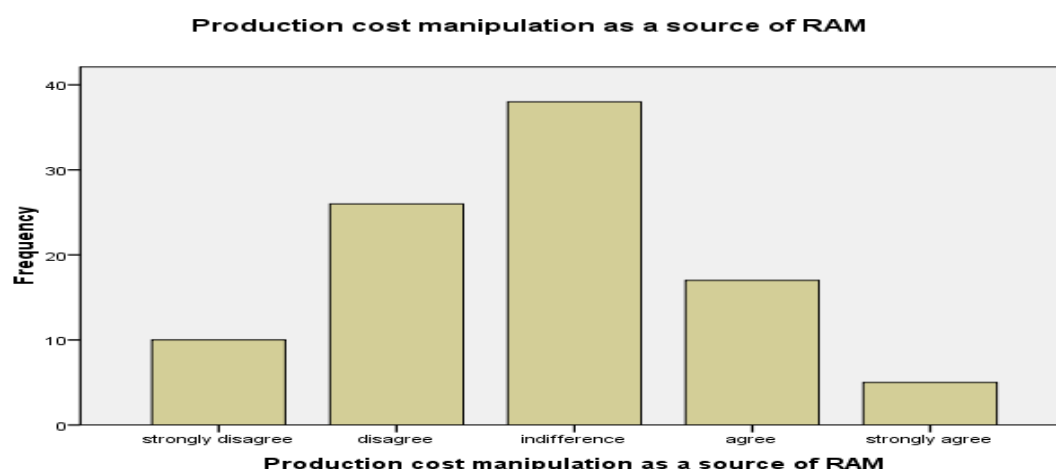


Figure 8.3: Production cost manipulation as a source of RAM

The results in Table 8.16 and Figure 8.3 are different from both sales and discretionary expenses manipulations. The implication is that the respondents believe that few of the companies engage in overproduction, that is, the production of goods more than necessary to bring down the unit cost of goods available for sales and consequently increases the period earnings. Precisely, 22.9% of the respondents agree that production cost manipulation is a cause of RAM among the listed companies in Nigeria; while 37.5% disagree, and 39.6% are indifferent. It contradicts the empirical results in Chapter Six, which reveals the prevalence of income-increasing manipulations through production cost manipulations among listed firms in Nigeria. The contradiction could be indicative of the industry inclination of a significant part of the respondents to the questionnaires. It could be that most of the respondents belong to the non-manufacturing sector where production processes are not prevalent or a familiar occurrence and as such do not envisage the possibilities of engaging in manipulations through production cost in the firms they represent.

To confirm or justify the scepticism on industry inclination is the high frequency (39.6%) of the respondents who are indifferent in their responses to the question. They do not link manipulations through production cost to their line of business activities. It is therefore sufficient to say that 22.9% of the respondents that agree are likely to belong to the manufacturing sector where real production activities take place.

Therefore, to conclude, the survey results have confirmed the results of the regression analysis in Chapter Six that all the three RAM models are prevalent (sales manipulations, discretionary expenses manipulations, and production cost manipulations) among companies listed in the NSE. It, therefore, concludes objective one and answers research question one. The next section discusses the responses to research question two to fulfil objective two.

8.4 Responses to the statements on the audit committee's attributes and RAM

Table 8.17 presents the responses to the statements in the questionnaire on research question two. It seeks to answer to what extent do the attributes of audit committee members (independence, financial literacy, size, frequency of meeting, female directorship, and multiple directorships) impact on RAM in Nigerian listed companies. The 'strongly agree' and 'agree' columns are summed up to 'agree' and likewise, the 'strongly disagree' and 'disagree' are summed up to 'disagree' in Table 8.17 below to facilitate the reporting and analysis process; the column on indifference is not affected in the merging process. For the negatively framed statements, that is, reversely-worded items, with responses in that pattern, it is in order to reverse the responses for analysis to avoid whatever harmful effects they might have on the covariance structure of the scale (Józsa & Morgan, 2017; Suárez-Alvarez *et al.*, 2018). Two other statements, that is, Question 21 and Question 42 are Likert scale items, and their analysis will not follow Likert scale items' treatment. Question 21 seeks to examine the characteristics of audit committee members in a related company and not the responses to any probing statement. The statement measures the strength of a characteristic (financial literacy) and not to agree or otherwise. These two statements are analysed in Tables 8.18 and 8.19 respectively.

Table 8.17: Frequency distribution of responses to the statements on the audit committee's attributes and RAM

Research question one: Is there RAM prevalence among companies listed in Nigeria?								
Prevalence of RAM								
Statements	A	%	I	%	D	%	Mn	S/D
Question 16: Managers are involved in sales manipulations by attempting to boost sales during the year by granting simple credit terms or price discounts in order to achieve a certain level of earnings.	52	54.16	6	6.25	38	39.58	3.23	1.24
Question 17: Managers reduce expenditures such as selling, general and administrative, advertisements and research and development in order to achieve outcomes that will guarantee an advantage in terms of contractual obligations.	52	54.17	5	5.21	39	40.63	3.19	1.15

Prevalence of RAM continued								
Statements	A	%	I	%	D	%	Mn	S/D
Question 18: Managers may increase earnings to avoid harsh debt agreements by increasing units produced beyond requirements to reduce total cost per unit, which will eventually bring down the cost of sales.	22	22.92	38	39.58	36	37.50	2.80	1.02
Question 19: Manipulation of Sales, Discretionary expenses and productions occur with the primary aim of deceiving unsuspecting stakeholders to believe that reported earnings are achievable through normal operational business activities.	65	67.71	10	10.42	21	21.88	3.54	1.11
Question 20: RAM, either by sales, discretionary expenses or production, is an engagement meant to benefit the executives/management, which is capable of destroying the information quality of financial statements.	73	76.04	12	12.50	11	11.46	4.06	1.06
Average score	54	56.25	23	23.96	19	19.79	3.36	0.79
Research question two: To what extent do the attributes of audit committee members (independence, financial literacy, size, frequency of meeting, and multiple directorships) impact on RAM in Nigerian listed companies.								
Audit Committee Financial Literacy and RAM								
Statements	A	%	I	%	D	%	Mn	S/D
Question 21: Financial literacy means members' ability to understand financial statements, please rate the financial literacy of this company's audit committee between 1- 5 (1 for very weak and 5 for very strong).	X	X	X	X	X	X	X	X
Question 22: Audit committee members can assist management in identifying and assessing significant risks facing the company and suggesting ways of overcoming them.	70	72.92	10	10.42	16	16.67	3.74	1.15
Question 23: I, as an audit committee member lack a good understanding of the financial statements.	65	67.71	13	13.54	18	18.75	3.47	1.05
Question 24: The presence of a financially literate member will assist in reducing the managements' desire to manipulate real activities in Nigerian listed companies.	56	58.33	11	11.46	29	30.21	3.42	1.37
Question 25: The financial literacy of audit committee members makes no difference in the existence of RAM in Nigerian listed companies.	61	63.54	10	10.42	25	26.04	3.58	1.23
Average score	65	67.71	27	28.13	4	4.17	3.66	0.65
Audit Committee Independence and RAM								
Statements	A	%	I	%	D	%	Mn	S/D
Question 26: There is an atmosphere of openness and trust among audit committee members, and everyone feels free to speak out and pursue issues to a logical conclusion.	59	61.46	17	17.71	20	20.84	3.54	1.23
Question 27: Audit committee members have unhindered access to financial statement, internal control system reports, audit reports of both the internal and external auditors and managements' report and responses to audit queries among others.	73	76.04	9	9.38	14	14.59	3.84	1.07
Question 28: Independence of audit committee members is capable of reducing the managements' motivations to manipulate real activities in Nigerian listed companies.	70	72.92	10	10.42	16	16.67	3.69	1.09

Audit Committee Independence and RAM continued								
Statements	A	%	I	%	D	%	Mn	S/D
Question 29: Independence of audit committee members makes no difference on the managements' desire to manipulate real activities in Nigerian listed companies.	63	65.63	11	11.46	22	22.92	3.56	1.14
Question 30: The audit committee enjoys a smooth working relationship with both the internal and external auditors along with the board of directors.	31	32.19	17	17.71	48	50.00	2.88	1.36
Average score	52	54.16	40	41.67	4	4.17	3.51	0.65
Audit Committee Meetings and RAM								
Statements	A	%	I	%	D	%	Mn	S/D
Question 31: We have a sufficient number of meetings, convened appropriately to address essential financial reporting responsibilities.	63	65.63	9	9.38	24	25.00	3.53	1.23
Question 32: We are at liberty to invite the right individuals to attend our meetings, especially those with professional skills or knowledge on issues on the agenda.	63	65.63	17	17.71	16	16.67	3.56	1.17
Question 33: The procedures for the audit committee meetings are not in a rush, and members have access to every item on the agenda well in advance. This culture affords members quality time of review before meetings.	66	68.76	14	14.58	16	16.67	3.54	1.04
Question 34: Audit committee meetings make no difference on the managements' falsification and manipulative desires.	78	81.25	4	4.17	14	14.58	3.76	0.96
Question 35: Audit committee meetings will enhance managements' falsification and manipulative tendencies.	60	62.50	6	6.25	30	31.25	3.21	1.31
Average score	44	45.83	44	45.83	8	8.33	3.38	0.73
Audit Committee Female Directorship and RAM								
Statements	A	%	I	%	D	%	Mn	S/D
Question 36: The female audit committee members are accommodating.	65	66.71	13	13.54	18	18.75	3.60	1.08
Question 37: Female audit committee members exhibit greater interpersonal relationship than their male counterpart.	31	32.29	25	26.04	40	14.67	2.94	1.15
Question 38: By the way they relate and associate with others, resolving issues become easy and thorough when a female director is a member of the committee.	36	37.50	21	21.88	39	40.63	2.99	1.05
Question 39: Women need considerations for more opportunities to become corporate directors in Nigeria, even if it means making it mandatory as is being contemplated in the United Kingdom and some other civilised countries.	45	46.88	21	21.88	30	31.25	3.16	1.07
Question 40: The presence of a female member in an audit committee will promote managements' desire to manipulate real activities in Nigerian listed companies.	18	18.75	20	20.83	58	60.42	2.44	1.17
Question 41: Female membership in audit committee makes no difference on the management's tendency at manipulating real activities in Nigerian listed companies.	45	46.88	15	15.63	36	37.50	3.06	1.28
Average score	27	28.13	48	50.00	21	21.87	3.08	0.79

Audit Committee Multiple Directorship and RAM								
Statements	A	%	I	%	D	%	Mn	S/D
Question 42: State the number of directorships seats occupied either in an executive or non-executive capacity?	X	X	X	X	X	X	X	X
Question 43: Audit committee member who holds several directorship seats in too many companies may have little time in fulfilling their responsibilities in	50	52.08	11	11.46	35	36.46	3.04	1.14
Question 44: Multiple directorships promote experience and skills of such director, which eventually becomes an advantage and make them useful as audit committee members.	52	54.17	16	16.67	28	29.16	3.16	1.19
Question 45: The presence of an audit committee member with several directorship seats will reduce RAM in Nigerian listed companies.	55	57.30	15	15.63	26	27.08	3.26	1.05
Question 46: The presence of an audit committee member with several directorship seats makes no difference on whether management engages in RAM or not.	56	58.33	16	16.67	24	25.00	3.26	1.03
Average score	17	17.71	60	62.50	19	19.79	2.98	0.71
Audit Committee Size and RAM								
Statements	A	%	I	%	D	%	Mn	S/D
Question 47: There is the right combination of members in terms of skills, experience and basic knowledge of the operational objects of the company.	67	69.79	7	7.29	22	22.92	3.71	1.26
Question 48: The audit committee meetings always end in disagreement and misunderstanding, which is mostly attributable to its size.	60	62.51	24	25.00	12	12.51	3.63	0.97
Question 49: The size of the audit committee enables shared responsibilities among members which allow resolution of issues in details and timely.	72	75.00	8	8.33	16	16.67	3.82	1.21
Question 50: The audit committee size makes no difference in the likelihood of management indulging in falsifications and manipulations of reported earnings in Nigerian listed companies.	36	37.50	7	7.29	53	55.21	2.77	1.32
Question 51: Audit committee size will promote managements' aspirations to manipulate real activities in Nigerian listed companies.	51	53.13	29	30.21	16	16.67	3.52	1.05
Average score	53	55.21	36	37.50	7	7.29	3.55	0.82

Note: A=Agree, I=Indifference, D=Disagree, Mn=Mean, and S/D=Standard deviation, X=Likert item

8.4.1 Audit committee financial literacy (ACFLT) and RAM

Table 8.18 shows the responses to item Q21 in Table 8.17 indicating that 77 (41 + 36) of the respondents gave a strong rating to financial literacy (ratings between 4 and 5) of the audit committee members in their company, that is, they can understand financial statements. In Table 8.17, four statements are used to assist in determining audit committee financial literacy and RAM, that is, from Q22 to Q25. Most of the respondents, that is, 70 (72.92%), attest to the fact that they can assist management in identifying and assessing significant risks facing the company and suggesting ways of overcoming them.

Table 8.18: Financial literacy rating of the company's audit committee members

Respondents	%	Ratings
19	19.79	3
41	42.71	4
36	37.50	5
96	100	

Similarly, 65 (67.71%) of the respondents agreed that they have a good understanding of the financial statements. Some respondents, that is, 56 (58.33%) were of the view that the presence of a financially literate member will assist in reducing the managements' desire to manipulate real activities in Nigerian listed companies. The respondents to the statement on whether the financial literacy of audit committee members makes a difference on the existence of RAM were also substantially in agreement, that is, 61 (63.54%) respondents agreed with the statement. On average, most, that is, 65 (67.71%) of the respondents agree that the financial literacy of audit committee members has a significant influence on RAM among listed companies in Nigeria. The average mean scores of 3.66 and a standard deviation of 0.65 is closer to the agreed threshold, although this cannot be said to be significant.

This result satisfies the provision in virtually all the codes of corporate governance in Nigeria, especially the S.13 (a) SEC (2011) code which requires members of the audit committees in Nigeria to be able to read and understand fundamental financial statements (Chapter Two, Table 2.2). The result supports the descriptive statistics result in Chapter Six which shows that the majority, (81.2%), of the sampled firms have audit committee members who are financially literate, that is, can understand financial statements.

This result is consistent with Farber (2005) and Agrawal and Chadha (2005) who find that firms with audit committee members who have financial expertise are less likely to have incidences of poor financial reporting. On the contrary, Carcello and Neal (2003), DeFond *et al.* (2005), and Anderson *et al.* (2004) fail to document any substantial financial reporting advantages due to the presence of audit committee financial expertise. There is also a link to the secondary data regression analysis result in Chapter Six, Table 6.12, which reports an insignificant relationship between audit committee financial literacy and RAM. The mean score observed is not significant though most of the responses to the items that form the scale are in the affirmative. It could mean that the dominant presence of audit committee members with financial literacy has not

reflected in the committee's impact on RAM. Several reasons could be responsible for this situation, such as conflict of interest among the committee members with financial literacy, over-busyness could also impinge on the commitment of financially literate members. However, examining these reasons are outside the scope of this study.

8.4.2 Audit committee independence (ACIND) and RAM

In Table 8.17, five statements seek the opinions of the respondents on audit committee independence and RAM. The first statement probes whether there is an atmosphere of openness and trust among audit committee members, where everyone feels free to speak out and pursue issues to a logical conclusion. The table shows that 59 (61.46%) of the respondents agree with the statement. It indicates that 73 (76.04%) of the respondents are of the view that audit committee members have unhindered access to the financial statements, internal control system reports, audit reports of both the internal and external auditors and managements' report and responses to audit queries. Most, 70 (72.92%), of the respondents, agreed with the statement that the independence of audit committee members is capable of reducing management's motivations to manipulate real activities in Nigerian listed companies.

Concerning the statement that seeks to understand whether the independence of audit committee members makes a difference to the managements' desire to manipulate real activities in Nigerian listed companies, 63 (65.63%) of the respondents supported this statement which shows their conviction that independence of audit committee members plays a role in preventing RAM practices by management. Only a few, 31 (32.19%), respondents agreed that audit committee members enjoy a smooth working relationship with both the internal and external auditors along with the board of directors. It implies that efforts are necessary to ensure audit committee members have access to both the internal and external auditors as well as the management which would guarantee access to vital information whenever required. It is also a recommendation of NCCG that there should be an annual meeting by the audit committee, with both the internal and external auditors (Chapter Two, Table 2.2).

The aggregate responses to all the statements on audit committee independence and RAM supported the view that audit committee independence is a necessary attribute in constraining RAM. On average, only 52 (54.16%) respondents, with an aggregate mean score of 3.51, agreed to this notion. This response is inconsistent with the descriptive

statistics in Chapter Six on audit committee independence which shows that 53.1% of the sampled firms have audit committees that are not independent in terms of composition. However, it supports the result of the secondary data regression analysis in Table 6.12. It is a clear indication of the importance of audit committee independence and the need for listed companies in Nigeria to improve on the composition of their audit committee by including more independent members.

This finding is in alignment with the recommendations in almost all the codes of corporate governance reviewed in Table 2.2 in Chapter Two. The finding is also consistent with García-Meca and Sánchez-Ballesta (2009) and Pucheta-Martínez and De Fuentes (2007) who argued that the quality and credibility of financial reporting could improve when the audit committee members are independent. In contrast, Garven (2015) and Visvanathan (2008) found that the audit committee independence does not in any way constrain RAM.

8.4.3 Audit committee meeting frequency (ACMTG) and RAM

Regarding the statements on audit committee meetings and RAM, Table 8.17 shows the responses to all the five statements. In all, 63 (65.63%) of the respondents asserted that they held meetings sufficiently enough to perform their oversight functions on financial reporting appropriately. Many, 63 (65.63%), respondents to the survey attested to the liberty that they have to invite the right individuals to attend their meetings especially those with professional skills or knowledge on issues on the agenda. It conforms with the recommendation of all the codes of corporate governance in Nigeria that the audit committee should be at liberty to hire an external professional party, and the company shall bear the cost. Similarly, 66 (68.76%) responded in the affirmative to the statement that meeting proceedings are not in a rush, and that members have access to every item on the agenda well ahead of the meeting.

The essence of this is to give members enough time to review and probe every item on the agenda. It will enhance their participation and ensure quality and fruitful deliberations. On the statement that seeks to probe whether audit committee meetings make any difference on the managements' falsification and manipulative desires, most, 78 (81.25%) of the respondents agreed that it does make a difference. Just a few, 14 (14.58%) of them did not agree with this assertion. In the same vein, 60 (62.5%) respondents agreed to a similar statement on whether audit committee meetings will

discourage managements' falsification and manipulative tendencies, indicating that audit committee meeting frequency will undoubtedly discourage any tendency to manipulate real activities. Audit committee meeting frequency is an essential attribute in the literature (Anderson *et al.*, 2004; Spira, 1999, 2003).

On average, only 44 (45.83%) of the respondents with a mean score of 3.38 were of the view that audit committee meetings can impact RAM in listed companies in Nigeria. The individual item analysis shows that all the statements indicated affirmative responses. This finding is in line with the recommendation of a quarterly meeting by almost all the codes of corporate governance in Nigeria, as reviewed in Chapter Two, except for the NCC (2016) Code that recommends at least two meetings. This finding can also be supported in the literature by Abbott *et al.* (2004) and Sharma and Iselin (2006) which both opined that an active audit committee should meet at least four times in a year. However, Bédard *et al.* (2004), Davidson *et al.* (2005), and Baxter and Cotter (2009) indicate that a higher number of audit committee meetings do not deter or constrain manipulation of earnings nor does it improve the quality of financial reporting.

8.4.4 Audit committee female directorship (ACFDR) and RAM

Concerning the impact of audit committee female directorship on RAM, as revealed in Table 8.17, six statements were used to investigate this assertion. In responding to the statement on whether female audit committee members are accommodating, 65 (66.71%) respondents agreed to this statement. The statement on whether female audit committee members exhibit a greater interpersonal relationship than their male counterpart has few, 31 (32.29%), respondents agreeing with the statement. Precisely 40 (41.67%) of them disagreed with this statement. It could be as a result of the dominance of the male among the respondents, as shown in Table 8.1 that 90 (93.7%) of the respondents are male. Similarly, only 36 (37.5%) respondents agreed that resolving issues becomes easy and thorough when there is a female director in the committee because of the way they relate and associate with others. A slightly higher percentage, 40.63% (39 respondents) disagreed with the statement, while 21.88% (21 respondents) were entirely indifferent.

The next statement on female directorships asked the opinion of the respondents on correcting the gender imbalance in corporate directorship. Less than half of the

respondents, 45 (46.88%), agreed with the statement that women need considerations for more opportunities to become corporate directors in Nigeria, while 30 (31.25%) of them disagreed. These responses are worrisome because of the global concern on gender issues. The 2011 SEC code, as reviewed in Table 2.2 Chapter Two, recommends that selection to the corporate board should reflect gender composition. It went further to state that the board should report its policies and practices annually on gender. Probing further, 18 (18.75%) of the respondents supported the statement that the presence of a female member in an audit committee will promote managements' desire to manipulate real activities. Most respondents, 58 (60.42%) disagreed with the statement. While some of the respondents do not see the need to give more opportunities to women on the corporate board, they also cannot imagine women as audit committee members promoting RAM. Investigating further the importance of having a female audit committee member, 45, (46.88%) respondents agreed that female membership in audit committee makes a difference in constraining manipulative tendencies in Nigerian listed companies, while 36 (37.5%) of them disagreed with this opinion. They are of the view that having female audit committee member does not make any difference to management's manipulative tendencies.

To summarise the opinions expressed by the respondents on audit committee female directorship and RAM, only 27 (28.13%) respondents, with a mean score of 3.08 agreed that audit committee female directorship can constrain or hinder manipulation of real activities. Among them, just 21 (21.87%) respondents disagreed with this opinion, while 48 (50%) were indifferent. This finding is contrary to the secondary data regression result in Chapter Six, which revealed a significant negative association, that is, audit committee female directorship can significantly constrain RAM. It is, however, consistent with Sun *et al.* (2011) who found that the ratio of female directorships and earnings manipulations is insignificant.

8.4.5 Audit committee multiple directorships (ACMDR) and RAM

Table 8.19 reveals that the majority 75 (78.1%) of the respondents are holding one additional directorship seat either in an executive or non-executive capacity. Just 17 (17.7%) of them are holding two additional seats, while the remaining four (4.2%) are holding three additional seats. It indicates that there are not many cases of multiple directorships among the respondents.

Table 8.19: Numbers of directorship seats held either in an executive or non-executive capacity

Respondents	%	Number of seats
75	78.1	1
17	17.7	2
4	4.2	3
96	100	

None of the respondents has contravened the recommendations of the 2011 SEC code and NCCG. Both codes did not specify a limit to multiple directorships, but both forbid holding directorship seats of (i) companies in the same industry (SEC (2011) code); and (ii) competing companies (NCCG). It supports the descriptive statistics result in Table 6.1, Panel B in Chapter Six which revealed that majority (68.9%) of the sampled firms have audit committee members with between two to five concurrent directorship seats.

In Table 8.17, four statements (Q43 – Q46) sought to examine the opinions of the respondents on the effect of multiple directorships on RAM. Precisely 50 (52.08%) respondents agreed that holding several directorship seats in too many companies will hinder them from fulfilling their responsibilities as audit committee members. This view corroborates that of Song and Windram (2004) and Core *et al.* (1999) who argue that multiple directorships may limit the time and commitment of audit committee members preventing them from performing effectively. Thirty-five respondents (36.46%) disagreed with the statement, implying that multiple directorships will not hinder their oversight functions as a committee member. Investigating further, 52 (54.17%) respondents were of the view that concurrent directorships will promote the experience and skills of such director and eventually make them more effective in their oversight functions. This view concurs with Boo and Sharma (2008) who concluded that concurrent directorships enrich audit committee members with experience and knowledge of management of companies of different business backgrounds. Most, 55 (57.30%) of the respondents affirmed that the presence of audit committee member(s) with several directorship seats will reduce RAM in Nigerian listed companies.

This result supports the previous view on gaining experience and skills as a result of several directorship seats. The numbers of those that disagree are few, as only 26 respondents disagreed with the statement. It could be that the experience and skills gained can assist in reducing RAM. The fourth statement probed whether the presence of a member(s) with several directorship seats makes a difference in preventing

management's desire to engage in RAM. The responses here are similar to the one before it. There is not much difference between the two extremes, precisely 56 (58.33%) respondents supported the statement while only 24 (25.00%) of them disagreed with this assertion. This opinion corroborates the previous finding that the presence of an audit committee member(s) with several directorship seats will reduce RAM in Nigerian listed companies.

The collective response is quite different from all the responses to all the individual items. It summed up to 17 (17.71%) respondents with a low mean score of 2.98, supporting the overall statement that the audit committee multiple directorships has an impact on RAM. This finding, in some way, confirms the result of the secondary data regression analysis that audit committee multiple directorships cannot constrain RAM. Although a large proportion 68.1% (100% - 31.9%) of the sampled firms have audit committee members with between one to five additional directorship seats as shown in Table 6.1 Panel B, it could be that their busyness has lessened their commitment to their oversight function as audit committee members. This result is consistent with the findings of Core *et al.* (1999) and Song and Windram (2004) who contend that audit committee members with multiple directorships may experience time constraints and low commitment to their responsibilities. It is contrary to the results of Coles and Hoi (2003), Ferris *et al.* (2003), Harris and Shimizu (2004) and Masulis and Mobbs (2011) who found that multiple directorships relate to effective governance and a signal of quality directorship. According to O'sullivan (2000), several directorship seats will expose them to different management policies, styles and practices which will eventually strengthen their oversight roles and increase their reputation.

8.4.6 Audit committee size (ACSZE) and RAM

In examining the impact of audit committee size and RAM, statements Q47 to Q51 were used to probe the opinion of the respondents. Most, 67 (69.79%), of the respondents were of the view that the combination of members in terms of skills, experience and basic knowledge is adequate for the operational activities of the company.

Sixty respondents (62.51%) affirmed that an audit committee meeting does not always end in disagreement and misunderstanding. However, 12 (12.51%) respondents disagreed with this notion. This implies that the popular view is that committee

meetings are usually well-managed, and that size is not a reason for conflict. Similarly, 72 (75%) respondents accepted the view that the size of the audit committee enables shared responsibilities among members, and this allows resolution of issues in detail and timeously. This response is consistent with the findings of Felo, Krishnamurthy, and Solieri (2003) and Pucheta-Martínez and De Fuentes (2007) who noted that an appropriate audit committee size is an essential component for audit committee effectiveness.

In assessing the respondents' opinions on whether the committee size makes a difference or not to the likelihood of management indulging in falsifications and manipulations of reported earnings, only 36 (37.5%) respondents believed that the size of the committee makes a difference and 53 (55.21%) respondents did not see the committee size as an attribute that can discourage manipulation of real activities.

This opinion is inconsistent with the results of Fodio, Ibikunle, and Oba (2013) which revealed that audit committee size is a significant factor in mitigating manipulation of earnings thereby improving the quality of the reported earnings. Fifty-one (53.13%) respondents rejected the statement that the audit committee size will promote managements' aspirations to manipulate real activities in Nigerian listed companies. It implies that the size of the committee will decrease managements' aspirations to perpetrate RAM in Nigerian listed companies. Relating this response to the one before it, it reveals that although size as an attribute may not discourage RAM, it will also not promote it.

To summarise, on average, 53 (55.21%) of the respondents with a mean score of 3.55 agreed with the overall statement that the audit committee size has a significant effect on RAM. This finding confirms prior literature which showed that audit committee size could lower earnings manipulations (Juhmani, 2017; Sun *et al.*, 2014), inspire appropriate and fundamental disclosures (Li, Pike, *et al.*, 2008), and contribute to the committee's oversight strength (Dhaliwal *et al.*, 2010). Nevertheless, this contradicts the findings of Hassan and Ibrahim (2014) and Bello *et al.* (2015) who found that the larger the size of the audit committee, the higher the prevalence of RAM; and that of the secondary data analysis in Chapter Six Table 6.12 which revealed an insignificant relationship between audit committee size and RAM.

The survey also indicated there was some apathy by the respondents towards the completion of the questionnaires. The expectation was to receive all the 400 questionnaires sent out, but only 96 were completed and returned after a long period of waiting. Many of the audit committee members of the sampled firms demonstrated reluctance in completing the questionnaires. Their reason for this might be due to the high level of corruption in Nigeria and hence divulging some information might expose the shortcomings of the management of the firms even if requesting such information is just for research purposes and is confidential. This was an impediment to conducting primary data-based research on issues relating to the auditing of firms in Nigeria. A few companies refused to accept the questionnaires citing that as the policy of the company.

The next section provides further results on Objective two which is the parametric analysis of the summed responses through logistic regression on the effects of audit committee attributes on RAM.

8.5 Controversy on using Likert scale data for parametric analysis

Researchers have argued that non-parametric analysis is best suited for Likert scale data, arguing that the data is of an ordinal or rank-order nature (Gardner & Martin, 2007; Jamieson, 2004). They argue further that a parametric analysis is strictly for interval data in order to yield valid results. However, other scholars feel otherwise. Several studies have revealed that Likert scaled-data can be effectively analysed as interval scales parametrically (Hagquist & Andrich, 2004; Linacre, 2002; Waugh, 2002).

In the opinion of Norman (2010), it is logical to conclude that a Likert scale constitutes an interval data since the multiple items of the scale impact equally to its quality. A Likert scale is a combination of Likert response items, none of these items is more significant than the others in contributing to the quality inherent in the sum (Carifio & Perla, 2007; Norman, 2010). To compute a Likert scale requires adding up multiple Likert items that measure a similar construct. It is equally acceptable to divide the summed up scores by the number of items that comprised it to obtain an indication of the average score. Such derived scales are capable of yielding data that are appropriate for parametric analysis (Carifio & Perla, 2007; Derrick & White, 2018). In the view of Pell (2005), conducting parametric tests requires the summed scores of Likert scale data. Norman (2010) submit that parametric tests are adequately robust in yielding

results that are mostly unbiased and seen as close to “the truth” when analysing Likert scale responses. Parametric tests are generally more robust than non-parametric tests and as such more desirable where possible. The tests tend to yield valid results even when statistical assumptions (such as the normal distribution of data) are violated to the extreme (Norman, 2010).

This study does not delve into the controversial issues surrounding parametric/non-parametric analysis, but serve as a contribution to the knowledge on using parametric analysis for Likert scale data. In this study, attaching scores to responses are in line with a 5-point Likert scale, and it was appropriate to reverse negatively worded statements. In obtaining a Likert scale value for each respondent, it was necessary to add up the individual response scores and then divide this Likert scale value by the number of items that formed it so that the resulting score fell in the same 5-Likert scale as the individual items. At this stage, it was essential to segregate the data into three-category (agree, indifference, and disagree) and two-category (agree and disagree) for analysis. Four categories were eventually derived, and all the categories were used in the parametric analysis and the results presented later in this chapter. In the next section, the diagnostic tests are presented in order to ascertain that the data is fit for parametric analysis. Ensuring normality to some extent is appropriate for a parametric procedure, and as such, the next section presents the result of the normality test.

8.6 Diagnostic checks

8.6.1 Skewness and kurtosis

Skewness measures the symmetry (or the lack of it) of the probability distribution of a random variable about its mean (Westfall, 2014). A distribution or data set is symmetric if it looks the same to the left and right of the middle point. It reveals the amount and direction of the skewness, that is, departure from horizontal symmetry. The value can be positive, negative or even exactly zero (though this is very unlikely for real-world data). The data is positively skewed if it tilts to the right, that is, the right tail of the distribution is longer than the left. If it is negatively skewed, the data distribution is longer towards the left. It is said to be perfectly symmetrical if the skewness is precisely zero, this position is difficult or virtually impossible to achieve.

According to Tabachnick and Fidell (2013), the acceptable range for skewness is below +1.5 and above -1.5, or else that might be a clear indication of the presence of outliers

in the data set. Several other scholars are of the view that skewness values between +2 or -2 can be considered a normal distribution (Field, 2009; George & Mallery, 2010).

Kurtosis is a measure of whether the data sets are heavily-tailed or light-tailed relative to a normal distribution (Westfall, 2014). The assertion or notion of referring to kurtosis as a measure of peakedness, that is, the height and sharpness or flatness of the peak of the distribution relative to the rest of the data set is false and misleading (Westfall, 2014). While skewness measures the relative size of the two tails of a distribution, kurtosis measures the combined size of the two tails. It describes the extreme values in one tail versus the other, in simple terms, it measures the outliers present in a dataset. It measures the amount of probability in both tails. The measured value is often compared to the kurtosis of a normal distribution, which is equal to three. If the kurtosis is higher than three, then the dataset has heavier tails than a normal distribution. A kurtosis less than 3, indicates lighter tails than a normal distribution. In an analysis by Zhao *et al.* (2016), a kurtosis value of 4.46 indicates moderate kurtosis. According to Schreiber-Gregory (2018), to test the assumption of normality in a dataset, skewness should be within the range of ± 2 , while kurtosis values should be within the range of ± 7 .

Table 8.20: Summary of responses on variables and normality test

Variables	Agree		Indifference		Disagree		Mean	SD	Skewness	Kurtosis
	F	%	F	%	F	%				
RAM	54	56.25	23	23.96	19	19.79	3.36	0.80	-0.74	1.99
ACIND	52	54.16	40	41.67	4	4.17	3.51	0.65	-0.74	4.25
ACFLT	65	67.71	27	28.13	4	4.17	3.66	0.65	-1.19	5.37
ACMTG	44	45.83	44	45.83	8	7.33	3.38	0.73	-0.71	4.00
ACMDR	17	17.71	60	62.50	19	19.79	2.98	0.71	0.03	4.01
ACFDR	27	28.13	48	50.00	21	24.87	3.08	0.79	0.11	2.83
ACSIZE	53	55.21	36	37.50	7	7.29	3.55	0.82	-0.51	3.75
ICCGV	69	71.88	13	13.54	14	14.58	3.77	1.09	-0.96	3.33
CCCGV	20	20.83	47	48.96	29	30.21	2.88	0.77	-0.20	2.54

Note: F = frequency of response; SD = Standard deviation

The results in Table 8.20 indicate normality in the survey data. The skewness ranges from -1.19 (ACFLT) to 0.11 (ACFDR), while the values of the kurtosis range from 1.99 (RAM) to 5.37 (ACFLT). All the values are within the acceptable boundary or limit for normality assumption. The table further reveals that most of the variables are negatively skewed, but none signify violation to normality. According to Frost (2017), examining the dataset for the possibility of multicollinearity should always be done as an initial

step in any regression analysis. Assumption of the absence of multicollinearity is another requirement in logistic regression. The next section examines multicollinearity through the variance inflation factor (VIF), tolerance, and coefficient variance-decomposition analysis.

8.6.2 Multicollinearity test

Multicollinearity check is a requirement in logistic regression, and the assumption is that of little or no multicollinearity among the independent variables. It means that the independent variables should not correlate too highly with each other. It is both a feature and a symptom of poor experimental design (Schreiber-Gregory, 2018). Schreiber-Gregory (2018) opined that multicollinearity signifies a severe hazard to both the appropriate and efficient estimation specification and the type of structural relationship commonly envisaged through regression analysis.

If the VIF is precisely one, there is no multicollinearity among the independent variables, but when the VIF is higher than one, the independent variables may be mildly correlated. The output in Table 8.21 indicates that the VIF for the independent variables is 1.08 (mean VIF), which is almost one, indicating a complete lack of multicollinearity. A VIF value between 5 and 10 indicates high correlation that may be problematic. Regression coefficients may be poorly estimated as a result of multicollinearity, especially if the value goes above 10. A commonly given rule of thumb is that a VIF of 10 or higher may be a severe cause for concern. Although this is just a rule of thumb, different scholars have used different levels of VIF values; ten as the maximum level of VIF (Hair *et al.*, 2010), five as the maximum level of VIF (Ringle, Da Silva, & Bido, 2015), and 2.5 as the maximum level of VIF (Allison, 2012).

Table 8.21: Variance inflation factor and tolerance statistics

Variable	VIF	Tolerance
ACIND	1.09	0.919
ACFLT	1.04	0.964
ACMTG	1.13	0.884
ACFDR	1.05	0.949
ACMDR	1.16	0.865
ACSZE	1.15	0.871
ICCGV	1.02	0.978
CCCGV	1.17	0.851
Mean VIF	1.10	
Condition Number		1.65

Tolerance values measure the influence of one independent variable on all other independent variables. A tolerance value that is 0.1 or less is a signal for the presence of multicollinearity in the dataset (Schreiber-Gregory, 2018). In considering the tolerance value, no values should fall below 0.1. The output in Table 8.21 shows that none of the variables is less than 0.1, the lowest is 0.851, which is an indication of the absence of multicollinearity in the dataset.

Table 8.22: Coefficient variance-decomposition analysis with condition indices

	Condition index	The proportion of variance of the coefficient							
		ACIND	ACFLT	ACMTG	ACFDR	ACMDR	ACSZE	ICCGV	CCCGV
1	1.00	0.06	0.03	0.12	0.05	0.10	0.10	0.02	0.09
2	1.15	0.17	0.00	0.03	0.20	0.21	0.01	0.02	0.11
3	1.22	0.01	0.40	0.05	0.02	0.02	0.06	0.22	0.11
4	1.28	0.11	0.15	0.00	0.00	0.00	0.14	0.54	0.01
5	1.36	0.21	0.09	0.01	0.39	0.01	0.29	0.03	0.04
6	1.39	0.06	0.18	0.61	0.14	0.02	0.09	0.01	0.00
7	1.44	0.18	0.05	0.01	0.11	0.05	0.22	0.07	0.49
8	1.65	0.19	0.09	0.18	0.09	0.60	0.10	0.09	0.15

Identifying multicollinearity between independent variables has been widely considered germane in regression analysis due to the numerous variables used as regressors. It is not enough to examine only the correlation matrix (which shows the correlation between two variables only). Hair *et al.* (2010) consider it necessary also to assess this using a method developed specifically to reveal the amount of multicollinearity present and the variables causing the high multicollinearity. To conduct this test, it involves two essential aspects. First, it is necessary to identify the high-value condition index. It represents the collinearity of the combinations of variables in the data set (this is the relative size of the eigenvalues of the matrix). Secondly, determine the regression coefficient variance-decomposition matrix, which indicates the proportion of variance for each regression coefficient (and its associated variables) attributable to each condition index (eigenvalues). It also requires a two-step procedure:

1. Identify the high-value condition indices those above a threshold value. The threshold value usually is in a range of 15 to 30, the most commonly used value (Hair *et al.*, 2010).
2. For all high-value condition indices, look out for variables with variance proportions above 0.9. A collinearity problem exists when a condition index identified in step 1 as above the threshold value accounts for a substantial

proportion of variance (0.9 or above) for two or more coefficients (Hair *et al.*, 2010).

The result in Table 8.22 reveals both the condition indices and variance decomposition values of this study. All the indices are less than two. The highest condition index is 1.65 under row 8. Even if the threshold value becomes 15 to be a bit conservative for the condition index, no condition index will fail this test. The coefficient variance-decomposition matrix also indicates no significant correlation exists among all the sets of independent variables. The test results, with the VIF and tolerance values, revealed the absence of multicollinearity in these regression results.

8.6.3 Coefficient of the correlation matrix

One popular detection method depends on the bivariate correlation between two independent variables. If it is 0.8 or above, the rule of thumb indicates that it is a signal of the presence of multicollinearity. It is undoubtedly true that a high correlation between two independent variables is an indication of multicollinearity (Schreiber-Gregory, 2018). While checking for multicollinearity, it is essential to consider checking multiple indicators rather than just concentrating on bivariate correlation. It is possible that while there may be no two highly correlated variables, three or more variables together might be multicollinear. According to Hair *et al.* (2010), the significant variances on regression coefficients caused by multicollinear independent variables is an indication of the low information content of the observed data and invariably leads to spurious parameter estimates. Multicollinearity, unfortunately, impacts negatively on the model specification as well as the estimation of economic relationships significantly.

Table 8.23: Coefficient correlation matrix

	ACIND	ACFLT	ACMTG	ACFDR	ACMDR	ACSZE
ACIND	1.000					
ACFLT	0.092	1.000				
ACMTG	0.279	-0.014	1.000			
ACFDR	-0.057	-0.108	-0.249	1.000		
ACMDR	-0.375	-0.174	-0.425	0.195	1.000	
ACSZE	0.006	0.040	0.086	-0.113	-0.254	1.000

The strength of the relationship between two variables ranges from +1 to -1, while the positive or negative sign is an indication of the direction of the relationship. The positive sign indicates that an increase in one variable leads to an increase in the other

variable and a negative sign indicates an inverse movement, that is, an increase in one decreases the other.

The correlation of the estimated coefficients of all the independent variables in Table 8.23 reveals that none are significantly high. The highest correlation revealed in the table is that between ACMDR and ACMTG, which is -0.425. It is quite a distance from the multicollinearity threshold. The table also reveals both negative and positive correlations among the variables, e.g., ACIND is positively correlated with ACFLT, ACMTG, and ACSZE, while it correlates negatively with ACFDR and ACMDR. It implies that companies with more independent audit committee members will witness more audit committee meetings than the one with less independent members. Such committees will not have a small size compared to the one with non-independent members. As independence increases, there will be less female membership and fewer members with multiple directorships.

8.7 Logistic regression analysis of the effects of audit committee attributes on RAM

This section presents the results of the logistic regression analysis of the summed responses after ascertaining the model fit through the results of all the parametric tests conducted. This section statistically examines the impact of audit committee attributes on RAM. As stated earlier, the summing up the Likert items is a prerequisite to obtaining Likert-scaled data. In performing the regression analysis against the RAM variable, obtaining the regressors becomes possible by grouping the scaled-data to form four data sets. The results are in four models (models A to D) based on the data category used in the estimation.

Model A is the result of the logistic regression that uses the dataset obtained from the summed Likert items. It is the first set of Likert-scaled data generated from the Likert items. The result in model B is the parameter estimates of the averaged Likert scale. This category was obtained by dividing the summed items (used in model A) by the number of items that added up to form it so that the resulting score falls in the same 5-Likert scale as the individual items. Model C uses the dataset obtained by recoding the averaged Likert scale (used in model B) into a three-scaled dataset, that is, 5 & 4 = 3, 3 = 2, and 2 & 1 = 1. The fourth model which is model D employed the dataset acquired through recoding of the dataset used in model C into the two-scale data category, that is, 3 = 1, and 2 & 1 = 0.

The results of all the logistic regression analysis are in Table 8.24. The presentation of the logistic regression results are under four models, that is, models A, B, C, and D. The results from the three models are identical, the same variables are significant in all models, and the directions of the relationship of all the variables are identical in all the models. The pseudo-r-square reported in Stata by default is the version proposed by McFadden (1984). It is considered the most popular of the many other alternatives. It is not a measure of how good the model is in prediction, but an indication of a better fit of the model to a null one (Allison, 2012). Making the right choice of model is critical since it must be the model with an optimal result. All the models based on the available scalar information from the estimations look fit and right.

The two tests conducted are to assist in making an optimal choice of model among the four available, the log-likelihood ratio (LR) and the Wald tests. The likelihood ratio (LR) test and Wald test are two tests used in evaluating the difference between the nested models (Gutierrez, Carter, & Drukker, 2001). The term ‘nested’ means that both models utilised the same estimation command (in this study, both models are fit by logistic command, with RAM as the dependent variable) and that the set of the predictor variables of one model is a subset of the predictor variables of the second model (Gutierrez *et al.*, 2001). In this study, for each of the models, the predictor variables ACFDR, ACMDR, and ACSZE, is nested within the model with the predictor variables ACIND, ACFLT, ACMTG, ACFDR, ACMDR, and ACSZE. Both the LR and Wald tests seek to investigate whether constraining these parameters to zero, that is, leaving out these predictor variables will significantly reduce the fit of the model.

In performing the LR test, it is essential to estimate both models expected for comparison. It is not the same with the Wald test, which approximates the LR test but demands that only one model be estimated, this can be considered a fairly significant advantage (Moreira & Poi, 2003). The LR test compares the log-likelihood of the two models and tests whether this difference is significant. This study uses both the LR and Wald tests and the results are presented in Table 8.24. The LR output gives the chi-squared value for the test as well as the p-value with three degrees of freedom. Testing for equality of the coefficients in the nested models requires that both coefficients be statistically significant.

Table 8.24: Logistic regression results of Likert scales' sets

Variable	Model A	Model B	Model C	Model D
ACIND	-0.245** (0.100)	-0.884** (0.399)	-0.803* (0.422)	-1.456*** (0.531)
ACFLT	-0.043 (0.091)	-0.146 (0.366)	-0.009 (0.429)	-0.227 (0.526)
ACMTG	-0.296*** (0.095)	-1.579*** (0.438)	-1.988*** (0.513)	-2.117*** (0.552)
ACFDR	0.058 (0.063)	0.318 (0.306)	0.405 (0.338)	0.540 (0.538)
ACMDR	0.187* (0.101)	0.781** (0.390)	0.907** (0.440)	2.265*** (0.788)
ACSZE	-0.006 (0.067)	-0.038 (0.302)	-0.302 (0.405)	-0.619 (0.512)
CONSTANT	7.219** (3.008)	6.153** (2.607)	5.252** (2.127)	2.026*** (0.653)
Observations	96	96	96	96
LR chi ² (6)	20.52	23.19	27.28	28.76
Prob>chi ²	0.00	0.00	0.00	0.00
Log likelihood	-55.53	-54.19	-52.15	-51.41
Pseudo r ²	0.16	0.18	0.21	0.22
LR test: chi ² (3) (Prob>chi ²)	4.43 (0.27)	5.48 (0.14)	6.54 (0.09)	10.78 (0.01)
Wald test: chi ² (3) (Prob>chi ²)	3.97 (0.27)	4.73 (0.19)	5.67 (0.13)	8.69 (0.03)

The standard error in parenthesis; Significance at 10% (), 5% (**), at 1% (***)*

The result indicates that only model D results in a statistically significant improvement in model fit with a chi-squared value of 10.78 and a p-value of 0.01 (which is <0.05). The result of the Wald test is not too different. Model D is the only model with a statistically significant improvement in model fit. The Wald test result shows a chi-squared value obtained from the test to be 8.69, and the p-value associated with the chi-squared is 0.03 (which is <0.05) this give rise to the rejection of the null hypothesis. It is an indication that the coefficients for ACFDR, ACMDR, and ACSZE are not simultaneously equal to zero.

These test results give a more unobstructed view of all the models emanating from the logistic regression results of all the four categories of Likert scaled data. Because of this, model D is adopted as the study model since it is the model with the optimal parameter estimates. It is the choice to achieve the study objective two, and the results are in both the logistics coefficient and the odds ratio in Table 8.25.

There are six predictor variables in the model: ACIND, ACFLT, ACMTG, ACFDR, ACMDR, and ACSZE (all binary variables). The two goodness of fit tests conducted indicated no sign of deficiencies with the model. The p-value (< 0.0001) for the LR chi-

squared statistics implies that one or more of the six predictors in the model is important for predicting the probability of constraining RAM.

Table 8.25: Logistic regression of audit committee attributes and RAM

Dependent Variable: RAM						
	Coefficient	Std. Error	P> z	Odds Ratio	95% Conf. interval	
ACIND	-1.456	0.531	0.006	0.233	0.082,	0.660
ACFLT	-0.227	0.526	0.666	0.797	0.284,	2.234
ACMTG	-2.117	0.552	0.000	0.120	0.041,	0.355
ACFDR	0.540	0.538	0.316	1.716	0.597,	4.927
ACMDR	2.265	0.788	0.004	9.631	2.054,	45.170
ACSZE	-0.619	0.512	0.226	0.539	0.198,	1.468
CONSTANT	2.026	0.653	0.002	7.585	2.110,	27.259
Observations	96					
LR chi ² (6)	28.76					
Prob > chi ²	0.00					
Loglikelihood	-51.41					
Pseudo r ²	0.22					

It is an indication that the model is statistically significant. The parameter estimates indicate that only three of the predictors in the model (ACIND, ACMTG, and ACMDR) are statistically significant at the 0.01 level (p-values < 0.001), although ACMDR is positively significant. The fitted logistic model is:

$$\log(p/1-p) = 2.03 - 1.46*ACIND - 0.23*ACFLT - 2.12*ACMTG + 0.54*ACFDR + 2.27*ACMDR - 0.62*ACSZE$$

where “p” is the estimated probability of constraining RAM. The estimated odds ratio was obtained by exponentiating the regression estimate. The confidence interval endpoints for the odds ratio were obtained by exponentiating the confidence interval endpoints for the corresponding regression parameter. The values are in log-odds units. In reporting odds ratio, it is usual to report the associated 95% confidence interval rather than the standard error. It is because the odds ratio is a non-linear transformation of the logit coefficient, so the confidence interval is asymmetric. The coefficients in logistic regression are log odds ratios. A negative value means that the odds ratio is smaller than one, which means, the odds of the test group are lower than the odds of the reference group.

Further, interpreting the negative log odds ratios to mean that the factor under study is a ‘protective’ factor, which means it is having an odds ratio less than one. For positive log odds ratios, it interprets to mean that the factor is a ‘risk’ factor having an odds ratio

higher than one. When interpreting an odds ratio, it is often needful to look at how much it deviates from one.

These estimates reveal the relationship between the audit committee attributes and RAM. The estimates indicate the amount of increase in the predicted log odds of RAM = 1 that would be predicted by a one-unit increase in the predictor, holding all other predictors constant.

For instance, the coefficient for the audit committee independence is -1.456. It means that for a unit increase in audit committee independence, there will be decreases of 1.456 in the log-odds of RAM, holding all other predictor variables constant. It implies that audit committee independence is capable of constraining RAM prevalence since the result indicates that a higher level of audit committee independence is associated with a decrease in the prevalence of RAM. The odds ratio column indicates that for a one-unit increase in audit committee independence, the odds are expected to decrease by a factor of 0.23, holding all other variables constant. This implies that audit committee independence can reduce the prevalence of RAM by 77%. This result is consistent with the secondary data regression analysis result in Chapter Six, Table 6.12, which reveals that ACIND has a significant negative impact on RAM. The analysis of the responses in Table 8.17 also supports this assertion. The finding is consistent with García-Meca and Sánchez-Ballesta (2011), who argued that an independent audit committee could potentially improve the quality and credibility of financial reporting. Studies by Klein (2002b) and Dechow *et al.* (1996) noted that the inclusion of more independent members in audit committee minimises the likelihood of fraudulent financial activities. Gendron, Be'dard, and Gosselin (2004) argued that members willing to be active and effective in the audit committee should have a probing mind and attitude which helps in assessing various management decisions. Pucheta-Martínez and De Fuentes (2007) revealed that the inclusion of independent members in the audit committee has a positive impact on improving the reporting quality both externally and internally. Xie *et al.* (2003) noted that the more independent an audit committee is, the better governance they can provide compared to the less independent audit committee. Kent, Routledge, and Stewart (2010) using a sample comprised of Australian public companies listed on the Australian Stock Exchange in 2004 supported the notion that the independence of the audit committee constrains earnings manipulations.

In contrast, in the US, Xie *et al.* (2003) examined the effect of some characteristics of the audit committee in constraining earnings manipulations and found that audit committee independence is not significantly associated with reduced levels of earnings manipulations. Abdul Rahman and Ali (2006), using listed firms in Malaysia, found an insignificant relationship between independent audit committees and earnings manipulations. Using a sample that consists of all companies listed on the Saudi Stock Market and covering a period between 2006 and 2009, Habbash (2010) found an insignificant relationship between independent audit committees and earnings manipulations. Waweru and Riro (2013) used panel data of 148-firm years observations comprising of 37 companies listed on the Nairobi Stock Exchange, and found that independence of the audit committee is not significantly related to earnings manipulations.

Audit committee frequency of meetings (ACMTG) also has a negative significance. The table reveals that for every additional audit committee meeting, the odds of prevalence of RAM reduce by a factor of 2.12. Looking at the odds ratio column from the table, it indicates that each additional audit committee meeting in a year will reduce the prevalence of RAM in Nigerian listed companies by 88%. This result indicates consistency with the secondary data regression results in Chapter Six, Table 6.12, which also has a negative statistical significance at 0.01 levels. This result elects an audit committee meeting as an essential attribute of an audit committee that can reduce RAM significantly. This result accepts the hypothesis stated earlier and validates the empirical result of the regression analysis in Chapter Six, Table 6.12. This result is consistent with Visvanathan (2008), who found a negative association between the number of audit committee meetings and the occurrence of REM. Surbakti, Shaari, and Bamahros (2017), Bala and Gugong (2015) and Soliman and Ragab (2014) opined that audit committee meetings are vital in conducting active oversight functions in monitoring the performance of managers.

In earlier studies, Kalbers and Fogarty (1993) noted that audit committee diligence is one of the critical components for its effectiveness. Spira (2003) and Anderson *et al.* (2004) regarded the frequency of audit committee meetings as a necessary factor in corporate governance. While studying the collapse of Arthur Andersen, Chen and Zhou (2007) noted that the number of audit committee meetings is an essential mechanism of corporate governance. Empirical evidence exists of a positive relationship between

meeting frequency and the quality of a firm's accounting information (Abbott *et al.*, 2004; Xie *et al.*, 2003). Scholars argued that effective control is unlikely to occur if an audit committee holds a single annual meeting, or none at all (Deli & Gillan, 2000). Abbott *et al.* (2004) noted that a competent audit committee should meet at least four times annually

Hassan and Ibrahim (2014) and Bello *et al.* (2015) found a positive relationship of audit committee meetings with RAM among listed manufacturing firms in Nigeria. Garven (2015) also examined the relationship between frequency of audit committee meetings and the occurrence of REM and found no evidence that companies involved in REM have fewer audit committee meetings. Other studies (Bala & Gugong, 2015; Baxter & Cotter, 2009) have found an insignificant relationship between audit committee meeting and earnings quality. Bédard *et al.* (2004) found that audit committee meeting frequency was not significantly related to earnings quality. In the same vein, Lin *et al.* (2008) found that audit committee meeting frequency is not associated with earnings manipulation.

In Table 8.25, the audit committee multiple directorships coefficient is 2.265 and it is statistically positively significant at the 0.01 level. This means that for a unit increase in audit committee multiple directorships (ACMDR), there will be a 2.265 increase in the log-odds of RAM, holding all other predictor variables constant. This implies that audit committee multiple directorships are not capable of constraining RAM prevalence since the result indicates that an increase in directorship seat of an audit committee member will lead to an increase in the prevalence of RAM. The odds ratio column indicates that for a one-unit increase in audit committee multiple directorships, the odds are expected to increase by a factor of 9.631, holding all other variables constant. It indicates that the audit committee multiple directorships are capable of increasing the prevalence of RAM by 863.1%. This result is somewhat consistent with the secondary data regression analysis result in Chapter Six, Table 6.12, which reveals that ACMDR has an insignificant positive relationship with RAM. This finding is in line with Shivdasani (1993) and Song and Windram (2004) who argue that multiple directorships may cause limitations of time and commitment for audit committee members affecting their performance.

Studies posit that audit committee members who holds director posts in too many companies may have limited time fulfilling their responsibilities (Core *et al.*, 1999; Lipton & Lorsch, 1992). Similarly, Hunton and Rose (2008) reveal that busy directors are less likely to accept auditors' suggested adjustments that will improve quality financial reporting, and in the opinion of Dewally and Peck (2010), busy directors are more likely to leave the firm when auditors disclose earnings manipulations or poor performance.

In contrast, audit committee members with multiple directorships may demand a more extensive audit to protect their reputation capital (Boo & Sharma, 2008), hence, contributing to better reporting quality. Multiple directorships enrich audit committee members with experience and knowledge of management of companies of different business backgrounds. Other studies are also of the view that audit committee multi-directorships contribute to better financial reporting quality (Vafeas, 2005; Yang & Krishnan, 2005).

These attributes are not statistically significant from the results in Table 8.25, ACFLT, ACFDR, and ACSZE. Two of the attributes, that is, ACFLT, and ACSZE, are not statistically significant in both the secondary and primary data regression analyses. However, ACFDR is statistically negatively significant in the secondary data regression analysis in Chapter Six.

The result of ACFLT from both analyses came as a surprise because there are more audit committee members with financial literacy among the respondents. Starting with the primary data regression analysis, the respondents with financial literacy from both Tables 8.11 and 8.12 indicates that 54.2% have a first degree or HND in disciplines related to accounting and finance and 47.9% of them are either chartered accountants or certified national accountants. Precisely 46.9% of them have had either experience in banking, finance or investment management. Also, from Table 8.17, the overall mean score from the summation of Likert scale items that form the ACFLT scale is 3.66. It is the highest compared to other scales. On the other hand, the secondary data regression analysis in Chapter Six, from the descriptive statistics in Table 6.1, 81.2% of the observations from the sampled companies have members with financial literacy. This proportion is quite significant, which would cause the expectation of a significant negative relationship, but that never happened from the two analyses.

The results implied that having financial literacy alone is not sufficient to constrain RAM but the ability to make a valid contribution to reporting quality without compromise or prejudice. The other angle to it is being available to perform an oversight function as an audit committee member. The result on multiple directorships from both the secondary primary data analyses indicates that many of the audit committee members from the sampled companies have additional directorship seats. In Chapter Six, Table 6.1, panel B, precisely 68.1% (100 – 31.9) of the audit committee members of the sampled firms have additional directorship seats either as executive or non-executive. In Table 8.19, all the respondents have between one to three additional directorship seats. It will not be out of place to conclude that most of the audit committee members with financial literacy also have additional directorship seats which may cause them to compromise their responsibilities. The results in Table 8.25 reveals that an increase in directorship seats will increase the prevalence of RAM in Nigerian listed companies.

8.7.1 Assessing goodness-of-fit for the logistic regression of RAM

To conduct the goodness-of-fit test is one of the essential diagnostic test or post estimation test for logistic regression. The conduct of two of such tests and the results are available in Tables 8.26 and 8.27.

Table 8.26: Test of goodness-of-fit for RAM logistic estimated model

Classified	---- True ----		Total
	D	~D	
+	39	13	52
-	15	29	44
Total	54	42	96
Classified + if predicted $\Pr(D) \geq 0.5$			
True D defined as RAM != 0			
Sensitivity		$\Pr(+ D)$	72.22%
Specificity		$\Pr(- \sim D)$	69.05%
Positive predictive value		$\Pr(D +)$	75.00%
Negative predictive value		$\Pr(\sim D -)$	65.91%
False + rate for true ~D		$\Pr(+ \sim D)$	30.95%
False - rate for true D		$\Pr(- D)$	27.78%
False + rate for classified +		$\Pr(\sim D +)$	25.00%
False - rate for classified -		$\Pr(D -)$	34.09%
Correctly classified			70.83%

The test in Table 8.25 explains the joint explanatory power of the independent variables, and it expresses it in percentages. It uses a command that shows how many cases were

classified correctly and incorrectly, using a cut-off point of 50% for the predicted probability.

The goodness-of-fit results in Table 8.26 indicates that the logistic regression estimates have a good fit. Exactly 70.83% of the responses used are appropriately and correctly classified. This result is suitable for both the coefficient and odds ratios of logistic regression. The implication of this is that all the collated responses for the analysis are valid, and therefore, the conclusions based on the parameter estimates are reliable.

The second goodness-of-fit test is the Pearson chi2 goodness of fit test, and it is well suited for logistic regression. The result is presented in Table 8.27. It is a test of the observed against the expected number of responses using cells defined by the covariate patterns (Archer & Lemeshow, 2006). It usually determines whether the predicted probabilities deviate from the observed probabilities in a way that the binomial distribution does not predict (Allison, 2012). If the p-value of the test is lower than the chosen significance level (e.g., for this study, it is 0.05), the predicted probabilities deviate from the observed probabilities in a way that the binomial distribution does not predict. The result in Table 8.27 is an indication that the model fits reasonably well.

Table 8.27: Pearson goodness-of-fit test for RAM logistic estimated model

Observations	96
Covariate patterns	39
Chi2 (32)	20.97
Prob > chi2	0.93

8.7.2 Logistic model classification of the effect of audit committee attributes on RAM

The logistic regression results on the effects of audit committee attributes on RAM confirms to the extent that both audit committee independent (ACIND) audit committee meeting frequency (ACMTG) are negatively significant aligning precisely with the regression result in Chapter Six. The exception to the findings is that the audit committee female directorship (ACFDR) that was negatively significant in Chapter Six is now statistically insignificant. Incidentally, the analysis of the responses to the statements on all the attributes indicated that most of the respondents agreed that all the attributes under investigation are capable of mitigating incidences of RAM in Nigerian listed companies.

8.7.3 Robustness check

Robustness check is a common and essential feature in empirical research according to Lu and White (2014). It analyses the uncertainty of models and tests whether estimated effects of interest are sensitive to changes in model specifications. It became necessary to conduct regression analyses using other estimating techniques to verify the stability of the parameter estimates of the primary model (baseline model) as a way of performing a robustness check. The results of these robustness test models are in Table 8.28.

Table 8.28: Regression analysis of audit committee attributes and RAM

Dependent Variable: RAM

Variable	Logistic Variable		Robust logistic	Survey regression	
	Coefficient	Odds ratio		Coefficient	Odds ratio
ACIND	-1.456*** (0.531)	0.233*** (0.124)	-1.456*** (0.533)	-1.456*** (0.533)	0.233*** (0.124)
ACFLT	-0.227 (0.526)	0.797 (0.419)	-0.227 (0.524)	-0.227 (0.524)	0.797 (0.417)
ACMTG	-2.117*** (0.552)	0.120*** (0.066)	-2.117*** (0.557)	-2.117*** (0.557)	0.120*** (0.067)
ACFDR	0.540 (0.538)	1.716 (0.924)	0.540 (0.558)	0.540 (0.558)	1.716 (0.958)
ACMDR	2.265*** (0.788)	9.631*** (7.594)	2.265*** (0.725)	2.265*** (0.725)	9.631*** (6.981)
ACSZE	-0.619 (0.512)	0.539 (0.276)	-0.619 (0.517)	-0.619 (0.517)	0.539 (0.279)
CONSTANT	2.026*** (0.653)	7.585*** (4.950)	2.026*** (0.627)	2.026*** (0.627)	7.585*** (4.757)
Observations	96	96	96	96	96
LR chi ² (6)	28.76	28.76	-	-	-
Wald chi ² (6)	-	-	19.02	-	-
Prob > chi ²	0.000	0.000	0.004	-	-
Loglikelihood	-51.411	-51.411	-51.411	-	-
F(6, 90)	-	-	-	3	3
Prob > F	-	-	-	0.010	0.010
Pseudo r ²	0.22	0.22	0.22	-	-

Standard error in parenthesis; Significance at 10% (), 5% (**), at 1% (***)*

The results are not too different from that of the baseline model, and this indicates that the baseline parameter estimates are robust, and the results are reliable. The results are in Table 8.28, which confirms the findings of the results in Table 8.25. Two robustness test models are involved in the robustness checks; the variables that achieve significance are the same in all the models. Even the directions of the relationships are not different in all the models.

Thus, objective two is resolved and answers to a reasonable extent research question two. The next section resolves objective three, which are both descriptive and parametric analyses through logistic regression of the responses to the effects of codes of corporate governance on RAM in Nigeria listed companies. Analyses of all the statements is appropriate using frequencies and percentages, just like in objective two. The pattern here is not in any way different from the analysis involved in objective two.

8.8 Results of effects of corporate governance codes on RAM

This section presents the results of corporate governance codes effects on RAM. It extends the analysis of the responses and a discussion of the test results of the hypotheses as proposed in Chapter Five. The discussion is split into two in line with the stated hypotheses.

8.8.1 SEC (2003) code of corporate governance and RAM

In examining the impact of the 2003 SEC code of corporate governance on RAM, three statements (Q52 to Q54) in Table 8.29 are applicable. The majority, 79 (82.29%), of the respondents support the view that the introduction of the 2003 SEC code was timely and that it affected the corporate governance practices to a large extent. This opinion echoed the view of Damagum and Chima (2013) and Orumwense (2012) who observed that the issuance of corporate governance codes by so many countries, including Nigeria, was because of the notable global corporate failures such as the collapse of Enron and WorldCom.

According to Aina and Adejugbe (2015), the need to develop and promote good corporate governance in Nigeria prompted the SEC to establish the committee that drafted the 2003 SEC code. Regarding the responses to the statement on whether the introduction of the 2003 code of corporate governance had any effect on RAM in Nigerian listed companies, a significant proportion, 65 (67.71%), of the respondents were of the view that introducing the code did affect RAM. Consistent with this view are the findings of Aina and Adejugbe (2015) which stated that before the introduction of the 2003 SEC code, the Nigerian banking sector experienced numerous financial scandals and suffered significant setbacks due to poor corporate governance.

According to Ofo (2013), the 2003 SEC code impacted the corporate governance scene in Nigeria tremendously being the first code to be issued by any regulatory agency in Nigeria.

In a similar vein, most of the respondents, 64 (71.88%) confirmed the statement that introducing the 2003 SEC code had abated managements' desire to manipulate real activities in Nigerian listed companies. Enyioko and Onwusoro (2014) supported this view when they noted that establishing the 2003 SEC code was to safeguard firms against corruption, manipulations, and environmental abuse. A similar view was shared by Okeahalam and Akinboade (2003) and Armstrong (2014) when they observed that the code promoted corporate transparency and accountability, economic growth and social development. The 2003 SEC code influenced the corporate environment to a large extent because it was the first code issued by a regulatory agency in Nigeria (Marshall, 2015).

Table 8.29: Responses to the statements on the codes of corporate governance and RAM

Research question three: Does the introduction of the codes of corporate governance by the SEC in 2003 and 2011 impact on RAM in Nigerian listed companies?

SEC (2003) Code of Corporate Governance and RAM								
Statements	A	%	I	%	D	%	Mn	S/D
Question 52: The introduction of the SEC (2003) code was timely, and it affected the corporate governance practices to a large extent.	79	82.29	2	2.08	15	15.63	3.95	1.23
Question 53: The introduction of the code of corporate governance in 2003 does not have any effect on RAM in Nigerian listed companies.	65	67.71	16	16.67	15	15.63	3.71	1.16
Question 54: The introduction of the code of corporate governance in 2003 has aided managements' desire to manipulate real activities in Nigerian listed companies.	64	66.67	14	14.58	18	18.75	3.66	1.21
Average score	69	71.88	13	13.54	14	14.58	3.77	1.09
SEC (2011) Code of Corporate Governance and RAM								
Statements	A	%	I	%	D	%	Mn	S/D
Question 55: The new code introduced in 2011 is not in any way different from the previous one introduced in 2003.	67	69.79	10	10.42	19	19.79	3.72	1.08
Question 56: The review of the SEC code of corporate governance in 2011 does not affect management's desire to manipulate real activities in Nigerian listed companies.	15	15.63	15	15.63	66	68.75	2.07	1.09
Question 57: The change of the code of corporate governance in 2011 has encouraged managements' desire to manipulate real activities in Nigerian listed companies.	54	56.26	13	13.54	29	30.21	3.11	1.22
Average score	20	20.83	47	48.96	29	30.21	2.88	0.77

Note: A=Agree, I=Indifference, D=Disagree, Mn=Mean, and S/D=Standard deviation

The overall opinion of the respondents on the impact of 2003 SEC code on RAM is that on the average, 69 (71.88%) of them with a mean score of 3.77 agreed that the SEC (2003) code has assisted in reducing RAM practices in Nigeria listed companies. This view is significant. This finding is inconsistent with the result of secondary data regression analysis in Chapter Six that the 2003 SEC code has no significant effect on RAM.

8.8.2 The SEC (2011) code of corporate governance and RAM

Three statements (Q55 – Q57) also in Table 8.29 present the responses of the respondents on the impact of the 2011 SEC code on RAM. In verifying whether there is any difference between the 2003 and 2011 SEC codes, many, 67 (69.79%), of the respondents agreed that the 2011 code is different to that of 2003. This view is consistent with that of Ejubekpokpo (2017), who noted that in 2008, the SEC inaugurated a committee to review the 2003 code to address its weaknesses and enhance the mechanism for its enforcement. The board of the SEC believe that the new code will ensure the highest standards of transparency, accountability and good corporate governance practices.

To verify if the 2011 code has any effect on management's desire to manipulate real activities in Nigerian listed companies, only a few, 15 (15.63%), of the respondents had an affirmative view. A large proportion, 66 (68.75%), disagreed with this assertion. This item could have possibly suffered from reversed-item bias in Likert data analyses. An indication to this effect is the affirmative responses to item 57, which is the next and concluding item. According to Weijters, Baumgartner, and Schillewaert (2013), using both regular and reversed items reduces response bias to some extent. The last item is related to the one preceding it. Exactly, 54 (56.26%) of the respondents disagreed with the notion that the 2011 code has encouraged managements' desire to manipulate real activities in Nigerian listed companies, implying that, they believe that the code has discouraged managements' desire to manipulate real activities in Nigerian listed companies. The analysis shows that on the average, only, 20 (20.83%) respondents support the overall statement that the 2011 SEC code has impacted on RAM. The average mean score of 2.88 is low.

Logistic model classification of the effect of corporate governance codes on RAM

The next section statistically examines the effects of the SEC codes of corporate governance on RAM. As stated in the methodology, the logistic regression assists in achieving this objective and the results are presented in both the logistics coefficient and the odds ratio in Table 8.30, respectively.

The effects of corporate governance codes' indicators are the ICCGV and CCCGV, and both describe the adherence of the companies to the corporate governance codes of the SEC. The result shows that both codes of corporate governance have a significant negative relationship with RAM and are also in line with the *a priori* expectations. The 2003 SEC code is significant at the 0.1 level while the 2011 SEC code is significant at the 0.05 level.

Table 8.30: Logistic regression of corporate governance codes and RAM

Dependent Variable: RAM						
	Coefficient	Standard Error	P> z	Odds Ratio	95% Confidence interval	
ICCGV	-0.364	0.208	0.080	0.695	0.462,	1.045
CCCGV	-0.706	0.297	0.017	0.493	0.276,	0.883
CONSTANT	3.681	1.210	0.002	39.690	3.702,	425.502
Observations	96					
LR chi ² (2)	9.62					
Prob > chi ²	0.01					
Loglikelihood	-60.98					
Pseudo r ²	0.07					

The coefficient for ICCGV is -0.364, indicating that introducing 2003 SEC code reduces the prevalence of RAM holding the other variables constant. The odds ratio reveals that for a unit increase in the administration of the code, the odds will decrease by a factor of 0.7 holding the other variables constant. This could mean that introducing the 2003 SEC code reduces the prevalence of RAM by 30.5% (1 – 0.695). This result is inconsistent with the secondary data regression analysis result in Chapter Six, which recorded an insignificant relationship between the 2003 SEC code and RAM. However, the result is consistent with the study of Ofo (2013) who disclosed that the 2003 SEC code, being the first corporate governance code to be issued by any regulator in Nigeria, has impacted the corporate governance scene in Nigeria.

According to Aina and Adejugbe (2015), introducing the code in 2003 was because of the need to develop and promote good corporate governance in Nigeria. Enyioko and Onwusoro (2014) argue that poor shareholding practices and further marginalisation of shareholders in corporate democracy in Nigeria prompted the SEC and NSE to introduce a code of corporate governance which became effective in 2003. They are of the view that it made an impact through some of its recommendations which included enhancing and broadening the capacity of the shareholders in corporate decision making. Ofo (2013) agrees that the 2003 code aimed at promoting the tenets of good corporate governance which includes transparency, accountability, responsibility, integrity, independence and discipline in private sector companies.

Miko and Kamardin (2016) suggest that the 2003 SEC code at a point could no longer satisfy the spirit of its introduction. There were many complaints and observations about its weaknesses which led to most regulators introducing codes to address their specific industry-related challenges.

The review of the SEC code in 2011 (CCCGV), also referred to as 2011 SEC code, is negatively and statistically significant at the 0.05 level. The coefficient or parameter estimate for the variable is -0.706, and this means that for a unit increase in its implementation, a decrease of 0.706 log odds of the prevalence of RAM will occur, holding the other variables constant. From Table 8.30, it is observed that the estimated odds ratio of 0.493 is associated with reduced prevalence of RAM practices in the Nigerian listed companies. It indicates that an increase in the implementation of the 2011 SEC code will lead to 50.7% decrease in the RAM practices. The level of significance of the 2011 code is higher than that of the 2003 code, which is reasonable and logical. It indicates that the review of the SEC corporate governance code in 2011 has a greater negative significant effect compared to the SEC code introduced in 2003 in mitigating or controlling RAM practices among the listed firms in Nigeria. It further confirms the desirability of the review.

8.8.3 Goodness-of-fit test for the logistic regression of corporate governance codes on RAM

The two tests conducted to ascertain goodness-of-fit under objective two are equally applicable here to achieve the same purpose. The joint explanatory power of the independent variables is explained and expressed in percentages in Table 8.31.

Table 8.31: Test of goodness-of-fit for RAM logistic estimated model

Classified	----- True -----		Total
	D	~D	
+	44	23	67
-	10	19	29
Total	54	42	96
Sensitivity	Pr(+ D)		81.48%
Specificity	Pr(- ~D)		45.24%
Positive predictive value	Pr(D +)		65.67%
Negative predictive value	Pr(~D -)		65.52%
False + rate for true ~D	Pr(+ ~D)		54.76%
False - rate for true D	Pr(- D)		18.52%
False + rate for classified +	Pr(~D +)		34.33%
False - rate for classified -	Pr(D -)		34.48%
Correctly classified			65.63%

The result indicates a good-fit with 65.63% of the responses adjudged as being appropriate and correctly classified. This result is not too different from that in Table 8.32, which presents the goodness-of-fit on the effect of audit committee attributes on RAM. The results of the other test conducted to confirm the goodness-of-fit, which is the Pearson chi2 goodness-of-fit test is in Table 8.32. Table 8.32 shows that the model fit is not in doubt in whatever way possible. It validates and gives credibility to the collated responses used in both logistic regressions.

Table 8.32: Pearson goodness-of-fit test for RAM logistic estimated model

Observations	96
Covariate patterns	16
Chi2 (13)	11.81
Prob > chi2	0.54

8.8.4 Robustness check

A robustness check is appropriate to give credence to the regression result in Table 8.30, just like in objective two. The same models used for robustness checks in objective two are also applicable here. The result confirms the robustness of the results of this study.

Table 8.33: Logistic regression of corporate governance codes and RAM

Dependent Variable: RAM					
Variable	Logistic regression		Robust logistic	Survey regression	
	Coefficient	Odds ratio		Coefficient	Odds ratio
ICCGV	-0.364 (0.208)	0.694 (0.145)	-0.364* (0.191)	-0.364 (0.191)	0.695 (0.133)
CCCGV	-0.706*** (0.297)	0.493*** (0.147)	-0.706** (0.292)	-0.706*** (0.292)	0.493*** (0.144)
CONSTANT	3.681** (1.210)	39.690** (48.037)	3.681*** (1.419)	3.681** (1.224)	39.690 ** (48.569)
Observations	96	96	96	96	96
LR chi ² (2)	9.62	8.19	-	-	-
Wald chi ² (2)	-	-	8.31	-	-
Prob > chi ²	0.008	0.017	0.016	-	-
Loglikelihood	-60.98	-61.70	-60.98	-	-
F(2, 94)	-	-	-	4.11	4.11
Prob > F	-	-	-	0.02	0.02
Pseudo r ²	0.07	0.07	0.07	-	-

Standard error in parenthesis; Significance at 10% (), 5% (**), at 1% (***)*

8.9 Discussions of the empirical results and inferences (Primary Data Perspective)

The results of the primary data analyses show a strong alignment to the results of the secondary data analyses. Firstly, the primary data analyses on the prevalence of RAM in Nigeria confirms the results in Chapter Six that listed firms in Nigeria are engaging in RAM, especially sales manipulations and discretionary expenses manipulations. Out of the three measures of RAM assessed in the survey study, the prevalence of these two appears to be statistically significant among the listed firms in Nigeria. The implication is that many of the listed firms do manipulate their sales and discretionary expenses in order to boost current period earnings to meet certain thresholds. All these activities are capable of destroying the integrity of the firms' financial reporting.

Secondly, the results have also shown that RAM among the firms is traceable to activities such as managers reducing discretionary expenditures to increase their earnings. Accounting for these expenditures should be immediate since they are usually period costs. Also, some companies opportunistically cut discretionary expenses and thus have unusually lower discretionary expenses. Discretionary expenditures include advertising expenses, R&D expenses, and selling, general and administrative expenses. This result is similar to Okolie *et al.* (2014) who concluded that the financial reports of many listed firms do not portray the actual sales of the companies and hence it appears that companies, especially the listed ones, engage in practices that fail to reflect the

correct position of sales in their respective firms. Both the secondary and primary data analyses confirm this result.

However, RAM in terms of overproduction shows that manipulation of production costs is not as prevalent as sales and discretionary expenses manipulations among the listed firms in Nigeria. The primary data analysis also investigated the opinions of the audit committee members of the companies on their perceptions about the source of RAM. As discussed earlier, the low frequencies on the responses to the statement that sought to investigate RAM through production cost manipulation could have been as a result of the industry affiliations of most of the respondents. Although there was no statement to capture the industry affiliation of the respondents implying that this assertion is possible. However, on an overall assessment of the responses on RAM, the primary data analysis confirms the result in Chapter Six of the secondary data regression analysis that there is the prevalence of RAM among the listed companies in Nigeria. Considering the relationships between the audit committee attributes and RAM from the primary data analysis, it reveals that not all the attributes of the audit committee can significantly negatively constrain RAM.

Three attributes are negatively significant in either the secondary or the primary data regression results. Among the three attributes that are negatively significant in either of the results, two are significant negatively in both regression results (ACIND, and ACMTG). ACFDR is significant negatively in the secondary data regression result but not significant in the survey data regression result. ACMDR is positively significant in the primary data regression result but not significant at all in the secondary data regression result. The analyses of the model fit from both the secondary and primary estimations indicate that all the predictor variables are well suited in predicting the prevalence of RAM in Nigerian listed companies.

Firstly, from the analysis based on the questionnaires, audit committee financial literacy is an essential attribute of an audit committee that can influence RAM. The levels of academic, professional as well as relevant cognate experiences of audit committee members are essential attributes of the audit committee that will enable it to function well especially in controlling RAM among the listed firms in Nigeria. The descriptive analysis earlier in this chapter indicated that most of the respondents are financially literate, supported by the composition of the respondents to the questionnaires.

However, this attribute is not statistically significant in both the secondary and primary data analyses.

Secondly, the descriptive statistics in Chapter Six indicates that in most of the sampled firms, 60.8% have no female members in their audit committee. It also reflects in the composition of the respondents to the questionnaires, as 90 (93.7%) of the respondents are males. Probing further on gender, Table 8.7 reveals that only 31.2% of the respondents indicated that they have between two or three female audit committee members. The attribute is negatively significant in the secondary data regression result despite these statistics. It indicates that the inclusion of female directors in the audit committee of these firms is an essential factor that can affect their efficiency, especially in the area of controlling RAM.

The number of meetings held in a financial year by the audit committee is another essential attribute of an audit committee that can affect its efficiency significantly (Garven, 2015; Stewart & Munro, 2007). Results from the primary data analysis have shown that regular meetings of the audit committee are essential in curbing RAM. Again, this result is also similar to the one obtained under the secondary data analysis. Therefore, the prevalence of RAM among the firms in Nigeria can decrease when the audit committee meets regularly to update and monitor the activities of the management, especially in the area of financial management.

In the same manner, ACIND, just like ACMTG, is also negatively significant in both regression results. All the codes of corporate governance in Nigeria, as evidenced in Table 2.2, indicated the importance of having an audit committee with at least one member who is an independent director. It ensures an unbiased judgement and a critical review of the financial reporting process. The test of the overall significance of the estimated logistic regression for the primary data analyses and that of the estimated secondary data regression analyses have shown that jointly all the attributes are important factors that can affect the efficiency of the audit committee especially in controlling RAM among the sampled listed firms in Nigeria. The next section discusses the results of testing the hypotheses formulated in Chapter Four.

8.9.1 Hypothesis testing

Chapter Six gave the results of the hypotheses tests from the secondary panel-data regression analyses. This section concentrates on analysing the results of the hypotheses

testing based on responses of sampled respondents. To recap, research question one resolved objective one which sought to ascertain the prevalence of RAM practices using the three RAM models investigated in this study. As such, there were no hypotheses developed on RAM prevalence. Research question two addresses hypothesis H₁, (subdivided into H_{1A} to H_{1F}) which focused predominantly on the attributes of the audit committee members. Research question three addresses hypothesis H₂, (subdivided into H_{2A} and H_{2B}) focusing on the SEC corporate governance codes of 2003 and 2011.

The results also assist in further explaining the results from the secondary data regression analyses in Chapter Six.

Table 8.25 shows the analysis on the test results of hypotheses H_{1A} to H_{1F}.

Hypothesis 1A (H_{1A}): Audit committee independence has a negative significant effect on RAM in Nigerian listed companies.

The coefficient of ACIND is -1.456, and it is statistically negatively significant. The odds ratio of success, that is, of having audit committee independence responsible for the change in RAM is about 0.233 times ratio of failure. The two figures are statistically significant at 1% level. It indicates that the respondents do view the level of independence available to them as essential and sufficient enough in controlling RAM among the listed firms. The hypothesis is accepted.

Hypothesis 1B (H_{1B}): Audit committee financial literacy has a negative significant effect on the manipulations of real activities in Nigerian listed companies.

The audit committee financial literacy (ACFLT) is not significant since both the coefficient and odds ratio values are not statistically significant. The implication of this is that ACFLT is not considered an essential attribute of an audit committee that may negatively and significantly effect on RAM. Therefore, the hypothesis is rejected.

Hypothesis 1C (H_{1C}): Audit committee female directorship has a negative significant effect on RAM in Nigerian listed companies.

The audit committee female directorship (ACFDR) is statistically insignificant, in both the coefficient and odds ratio values. The implication of this is that ACFDR is not considered an essential attribute of an audit committee that could impact significantly on RAM. Therefore, the hypothesis is rejected.

Hypothesis 1D (H_{1D}): *Audit committee frequency of meetings has a negative significant effect on the manipulations of real activities in Nigerian listed companies.*

Audit committee frequency of meeting (ACMTG) measures the number of meetings held in a year by the audit committee of a firm. The coefficient is statistically negatively significant and significant in odds ratio tables also. The coefficient and odds ratio are -2.117 and 0.120, respectively, and they are both statistically significant at the 0.01 level. It indicates that meeting frequency of the audit committee is a vital attribute of the audit committee that can enable the committee to function well, especially in the area of controlling RAM among the listed companies. Therefore, the hypothesis is accepted.

Hypothesis 1E (H_{1E}): *Audit committee multiple directorship has a negative significant effect on RAM in Nigerian listed companies.*

Audit committee multiple directorships (ACMDR) measures the number of directorships seats an audit committee member holds in a particular year. The coefficient values are statistically positively significant. The coefficient and odds ratio values are 2.265 and 9.631, respectively, and they are both statistically positively significant at the 0.01 level. It indicates that ACMDR is not a vital audit committee attribute that can equip the members with the necessary skills and experience required to function well, particularly in the area of constraining RAM among the listed companies. Therefore, the hypothesis rejected.

Hypothesis 1F (H_{1F}): *Audit committee size has a negative significant effect on the manipulation of real activities in Nigerian listed companies.*

Audit committee size (ACSZE) is the total number of members in an audit committee in a particular year. Its coefficient value is statistically insignificant, which implies that the respondents do not view the size of the committee as an essential attribute of an audit committee that may significantly impact on RAM. The stated hypothesis is, therefore, rejected.

Table 8.30 shows the analysis on the test results of hypotheses H_{2A} and H_{2B}

Hypothesis 2A (H_{2A}): *The introduction of the code of corporate governance by the Nigeria SEC in 2003 has a negative significant effect on RAM in Nigerian listed companies.*

The code of corporate governance indicator, that is, the ICCGV describes the adherence of the companies to the SEC Code of Corporate Governance introduced in 2003. In Table 8.30, the coefficient column indicates -0.364 while the odds ratio column indicates 0.695. The results from both columns are statistically negatively significant. It implies that the introduction of the 2003 code of corporate governance reduces the prevalence of RAM to some extent. Therefore, the hypothesis is accepted.

Hypothesis 2B (H_{2B}): *The review of the SEC code of corporate governance in 2011 has a negative significant effect on RAM in Nigerian listed companies.*

The other indicator of SEC code of corporate governance, that is, the CCCGV, illustrates the impact of the review of the 2003 code of corporate governance in 2011 by SEC. The result from the coefficient column reveals -0.706 while the odds ratio column indicates 0.493. The results from both columns are statistically negatively significant. It is, therefore, appropriate to deduce that the review of the SEC code of corporate governance in 2011 is yielding fruitful results since it is capable of reducing RAM practices significantly. Therefore, the hypothesis is accepted.

Table 8.34 is a recap on triangulation effects and the discussions on the results from both the secondary-panel and primary-survey data regression analyses. It revealed that five variables, that is, ACIND, ACFLT, ACMTG, ACMDR and ACSZE achieved convergence, while three variables which include, ACFDR, ICCGV and CCCGV do not achieve convergence. Table 8.34 shows that there are seven instances where the formulated hypotheses were accepted and nine instances where they were rejected.

Table 8.34 Summary on the triangulation of the secondary and primary data analyses results

	Hypothesis	Predicted Result	Reject	Accept
H_{1A}	Audit committee independence has a negative significant effect on RAM in Nigerian listed companies.	-SG		A&B
H_{1B}	Audit committee financial literacy has a negative significant effect on the manipulations of real activities in Nigerian listed companies.	-SG	A&B	
H_{1C}	Audit Committee female directorship has a negative significant effect on RAM in Nigerian listed companies.	-SG	B	A
H_{1D}	Audit Committee frequency of meetings has a negative significant effect on the manipulations of real activities in Nigerian listed companies.	-SG		A&B
H_{1E}	Audit Committee multiple directorship has a negative significant effect on RAM in Nigerian listed companies.	-SG	A&B	
H_{1F}	Audit Committee size has a negative significant effect on the manipulation of real activities in Nigerian listed companies.	-SG	A&B	
H_{2A}	The introduction of the code of corporate governance by the Nigeria Securities and Exchange Commission in 2003 has a negative significant effect on RAM in Nigerian listed companies.	-SG	A	B
H_{2B}	The review of the 2003 code of corporate governance in 2011 has a negative significant effect on RAM in Nigerian listed companies.	-SG	A	B

-SG = Negatively significant; A = Secondary data regression result; B = Primary data regression result.

8.10 Summary

Several observations emanate from the results presented in this chapter. Firstly, it reflects the fact that the audit committee members in Nigeria are predominantly male and consist of shareholders and board members in equal proportion. Secondly, most of the members are non-executive directors of the company, although a few of them are executive directors. This second factor is vital in determining the independence or otherwise of the audit committee member, and incidentally, it is one of the attributes that can significantly negatively constrain RAM. Thirdly, it appears that the audit committee members in Nigeria do have the necessary academic qualification to function well as audit committee members. Fourthly, membership of the audit committee is predominantly six. The responses reveal that about 64% of the respondents reported that their audit committees have a membership of six, closely followed by a membership of four (31%). It might be connected to the statutory requirement of not more than six memberships, comprising of an equal number of shareholders and board members.

However, from the results of the primary data analysis, many findings are in alignment with the findings from the secondary data analysis. The primary data analysis revealed

that out of the three types of RAM assessed in this study, the prevalence of sales and discretionary expenses manipulations is higher.

The impact of audit committee attributes on RAM from the primary data analyses indicates that not all the attributes of audit committee investigated can significantly negatively impact on RAM. The analyses based on responses to the questionnaires revealed that audit committee independence, and frequency of meetings, are essential attributes of an audit committee that can influence RAM significantly.

This chapter has discussed the results obtained from the questionnaire survey with a comparison of the results from both the secondary data regression and the primary data regression analyses. The next chapter discusses the summary, conclusion, recommendations, limitations and research contribution of this study. It also highlights some areas for further research.

CHAPTER NINE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

9.1 Introduction

The main objective of this study was to investigate the impact of the audit committee attributes on RAM in Nigeria listed companies. This study was motivated primarily by the fact that to the best of the researcher's knowledge, there has been no prior academic study in this area that covers all listed firms in Nigeria. It has therefore extended existing knowledge in the area. Therefore, the study has comprehensively covered a wide range of issues relating to the audit committee attributes and RAM in Nigeria. This chapter's primary aim is to conclude the study with a chapter-by-chapter overview. It also highlights some policy implications of the study, acknowledges limitations and makes several recommendations for further study. It is structured as follows: Section 9.2 provides a summary of each chapter of this thesis; section 9.3 states some policy implications of this research on the capital market development in Nigeria; section 9.4 provides the limitations of the research; section 9.5 indicates some potential areas for future research; and, finally, section 9.6 ends the thesis with some concluding notes.

9.2 Summary and Overview

This thesis has nine chapters, including this concluding chapter. It presented the whole journey of the study including the background of the study, the literature review, methodological issues from both the archival and survey data perspectives, the results/findings from using both data types and finally the implications of the study.

Chapter One provided the motivation for the study, and also highlighted the prospective contributions of the study. The chapter also discussed the justification of the study, its contribution to accounting knowledge and existing literature, and its potential benefits to listed companies in Nigeria. The chapter concluded by stating the structure of the thesis.

Chapter Two provided the Nigerian country context, its peculiarities as an economy, its general development and more specifically, its corporate governance developments. This chapter discussed the legal and institutional structures relating to corporate governance as well as audit committee practices in Nigeria. It gave a brief account of the current guidelines on corporate governance-related issues in Nigeria. The chapter revealed a shift in corporate governance practices to what it is presently in Nigeria. The CAMA (2004), as amended, included some clauses regarding the governance of

companies and have given investors some protection. The SEC plays a leading role among the monitoring agencies in Nigeria and by the year 2003, it introduced a code of best practices on corporate governance for listed companies (which was to be administered on a ‘comply or explain’ basis). The code’s review was in 2011 (initially intended to be administered voluntarily but later became mandatory after 2014 amendments). Several other sectoral codes (CBN, 2006 code (reviewed in 2014); PenCom, 2008 code; NAICOM, 2009 code; NCC, 2014 code (reviewed in 2016); and NCCG, 2018) were all introduced, and some of them reviewed to improve the corporate environment. This chapter reviewed all the codes of corporate governance in Nigeria drawing attention to some recommendations of the codes that are capable of influencing the oversight functions of the audit committee as a corporate governance mechanism in constraining RAM.

Chapter Three focused on the theoretical frameworks associated with corporate governance. It reviewed the literature on these theoretical frameworks generally. It also reviewed the background of the concept of corporate governance, which entails managing a corporate entity in the overall interests of all stakeholders. The chapter highlighted diagrammatically theories that are associated with the development of corporate governance. The agency problem, which is the basis for the separation of ownership (principals) and control (agents), was examined. This chapter discussed the role of audit committees as an effective mechanism of corporate governance. It also highlighted and discussed the two theories underpinning this research study, that is, agency and stakeholder theories.

Chapter Four focused on the review of literature relating to the various facets of the audit committee attributes on one hand and RAM on the other. It commenced with definitions of the audit committee and RAM. The chapter highlighted the essence of the formation and developments of the audit committee to curtail manipulations and ensure quality financial reporting. It further examined the roles and functions of a competent audit committee. This chapter reviewed the audit committee attributes under investigation, which include independence, financial literacy, frequency of meetings, multiple directorships, female directorship and size of the committee.

Chapter four also discussed various manipulations of earnings through real activities. It reviewed the different types of RAM, the evidence of its practices and the costs

associated with RAM. It also examined several traditional models and empirical studies on RAM. It pointed out the motivating factors to engage in RAM and empirical studies on the audit committee and RAM.

Chapter Five focused on the adoption of the research approach used in secondary data analysis. This chapter identified the philosophical assumption and paradigmatic inclination of this study. The study, though inclined towards a positivist paradigm, uses two quantitative approaches, that is, archival (secondary data analysis) and survey (primary data analysis) research. The study adopted a multimethod quantitative research approach using a methodological triangulation to examine how audit committee attributes impact RAM in listed companies in Nigeria. The chapter elucidated how, in the first phase, the archival data collection was carried out and analysed before embarking on the second phase of the data collection, which was the survey data collection. It discussed the scope, population, sampling, and sample size. It also disclosed the data type, its sources, and the method adopted in the data collection exercise. It revealed the model specification along with the variable measurement details. The techniques of data analysis with all the diagnostic test carried out in the chapter were all disclosed.

Chapter Six discussed the findings obtained from the archival (secondary) data analysis using Stata statistical software to run the regression estimates. There were several observations from the results presented in this chapter. Firstly, the result of the analyses showed that all three types of RAM assessed in this study appeared to be prevalent among the listed firms in Nigeria. Reflecting on the impact of the audit committee attributes and RAM, it is evident that not all the attributes of the audit committee are capable of constraining RAM. The impact of some attributes is statistically insignificant. For instance, the results from the panel analysis indicated that three of the attributes, that is, ACIND, ACMTG, and ACFDR, are attributes that can significantly constrain RAM practices among the listed firms in Nigeria.

Chapter Seven discussed the research methodology on the primary data analysis which is the second approach used in this study to achieve methodological triangulation. The chapter discussed the techniques adopted in the second phase of data collection, which is, the questionnaire survey. It explained the need to conduct a pilot study to improve the questionnaire and the modalities of conducting the pilot study. The final version of

the questionnaire consisted of 57 questions divided into two broad aspects. The questionnaire also included six attributes that generally can impact RAM and also some suggestions for improving audit committee effectiveness in Nigeria. The chapter also gave details of the procedures adopted in administering the questionnaire. The chapter explained the statistical tools used for analysing the data and testing the hypotheses. Inferential and descriptive statistics were both used in this study to analyse the responses to the questionnaire. It presented the findings of the descriptive statistics using frequencies and percentages. It employed a parametric approach in testing the study hypotheses and used logistic regression analysis as the estimating technique.

Chapter Eight discussed the analysis and findings obtained from the survey (primary) data. The chapter reported the results of the responses from the questionnaire received from 96 respondents who are all the current audit committee members (as at the time of data collection) of the sampled firms. It carried out this phase of the data collection and analysis after the archival data stage noted in the previous chapter. The questionnaire was in two sections: demographic (termed ‘general’) and specific (which focused on audit committee attributes and RAM) sections. Descriptive statistics analysis was initially employed using graphs, frequencies and percentages, and logistic regression analysis which is a parametric approach followed this stage immediately. As stated in Chapter Seven, in the primary data methodology, logistic regression analysis was used and the results presented both logistic regression coefficients and the odds ratio as well.

However, from the results of the primary data analysis, many findings agree with what was obtained under the secondary data analysis. Firstly, there is a prevalence of RAM in Nigerian listed firms. The primary data analysis revealed that there is a prevalence of all the three types of RAM examined, but two were dominant, that is, sales and discretionary expenses manipulations. Production cost manipulations had a low response proportion. The logistic regression result revealed that out of the six audit committee attributes investigated against RAM, three (ACIND, ACMTG, and ACMDR) could significantly impact RAM practices in Nigerian listed firms, although ACMDR had a positive impact among them. ACIND and ACMTG are audit committee attributes that appeared in both secondary and primary data analyses results. Among the three attributes that are not significant in the logistic regression results, only ACFDR was negatively significant in the secondary data analysis result. The other two, that is, both ACFLT and ACSZE are not significant in either of the results.

9.3 Principal findings and conclusions

In terms of achieving the first objective, which is the prevalence of RAM and the impact of audit committee attributes on RAM, the listed companies in Nigeria are culpable on the incidences of RAM practices. In the assessment of the prevalence of RAM, both the secondary and survey data regression analyses confirmed this. The RAM measurement in secondary data regression analysis was confirmed by the analysis of the questionnaire, thereby enriching this finding.

In examining (second objective) the impact of audit committee attributes on RAM, the main regression analysis results from using both secondary and primary data revealed further some level of consistencies. Three attributes are significant in either of the secondary or primary data regression results, and they are all statistically significant at the 0.01 level. Among the three attributes that are significant in both of the results, two are statistically negatively significant in both regression results, that is, audit committee independence (ACIND), and audit committee meeting frequency (ACMTG).

The analysis of the responses on ACIND revealed that audit committee members do not enjoy a smooth working relationship with both internal and external auditors as well as with management. This situation is capable of frustrating the effective discharge of their oversight function if not addressed. Audit committee female directorship (ACFDR) is significant in the secondary data regression result but not significant in the survey data regression result. This result could be attributable to the lop-sidedness of the composition of the respondents that was male dominated. In the analysis of the Likert scale items on ACFDR, all the items had a low score, but there was only one with a proportion of 65%. The gender biasedness was reflected in the pattern of responses to all the ACFDR Likert scale items. This could be an explanation for why this attribute does not confirm the results of the secondary data regression analysis, which recorded a statistically negative significant relationship with RAM.

The significant positive relationship recorded in ACMDR was explained in the result in the secondary data regression analysis which was also insignificantly positive. The logistic result on ACMDR revealed a very high proportion (863.1%) of the failure of this attribute to constrain RAM. The other two attributes, ACFLT and ACSZE, are both not significant in all the two regression results. This demonstrates the extent of

convergence achieved (five variables achieved convergence) and the level to which the primary data explained the result of the secondary data analysis.

The third objective, which was the impact of the SEC codes of corporate governance on RAM, did not record an alignment from the two results. The two regression results, although they do not achieve convergence, seem to be giving a better perspective to the relationship that existed between the two codes and RAM. The non-parametric analysis, as well as the regression analysis of the survey data, explained the fact that the 2003 SEC code of corporate governance was impactful as at the time it was introduced. It explained further that its introduction was timely, and corroborated the studies of Aina and Adejugbe (2015), Damagum and Chima (2013), Ofo (2013), and Orumwense (2012). Similarly, the 2011 SEC code was adjudged not too different from the 2003 code possibly due to the same basis of applying the code, that is, on a 'voluntary' basis.

Voluntary application of the code of corporate governance generally has been criticised by several scholars since there is no consequence for non-compliance (Bagwandeem, 2010; Isukul & Chizea, 2017; Langeni, 2018; Suleh-Yusuf, 2017; Ujunwa, 2012; Zhao, 2016). However, despite this, it has been able to discourage the opportunistic behaviour of management from perpetrating RAM practices. The logistic regression revealed that the 2011 SEC code has more impact on RAM than the 2003 code, which records a statistical significance at 0.05 level as against 0.01 level recorded by 2011 SEC code. The results from the secondary data analysis indicated that both codes are statistically insignificant in constraining RAM. It reflected the performances of the codes, that is, the ICCGV and CCCGV within the scope of this study. The ICCGV reigned for eight years (2003 to 2011) while CCCGV reigned for only three years (2011 to 2014). The results are deemed insignificant based on the prevalence of RAM in the sampled firms within these periods in which the two codes reign. It will not be out of place to argue that the three years regime of CCCGV was inadequate compared to the eight years of ICCGV.

The descriptive statistics in Table 6.1 Panel B gives a clearer picture of the two regimes in proportion, 85.7% for ICCGV and 28.6% for CCCGV. These statistics confirm the result of the logistic regression that CCCGV has a more significant effect on RAM than ICCGV. It is essential also to point out that the logistic regression predicted the

relationship of ICCGV and RAM using its introduction while that of CCCGV was with the review of the code in 2011.

To conclude, the results of the non-parametric analysis and the logistic regression of the primary data have fulfilled the essence of the triangulation, that is, explaining in more depth the results of the secondary data regression analysis. All three objectives of the study were achieved using both the secondary and the primary data.

9.4 Recommendations

Engaging in RAM is detrimental and harmful to the growth strategy of a firm. Studies have provided empirical evidence on the consequences of RAM (Amoah, Anderson, Bonaparte, & Muzorewa, 2017; Cupertino *et al.*, 2016; Gunny, 2010; Roychowdhury, 2006; Zang, 2012; Zhu & Lu, 2013). Managers are manipulating real activities to meet an earnings target which might be a requirement in fulfilling a binding contract in order to secure a significant financial reward. Such a manager will divert time and effort required for productive activities to manipulation strategy. Consequently, manipulations can infringe on performance while imposing more significant financial obligations on the affected company (Bar-Gill & Bebchuk, 2003; Paine, 1994; Sherman & Young, 2016; Yu, 2008). RAM is a problematic behaviour to detect by auditors and regulators alike. In the opinion of Yu (2008), it is less likely to be adjudged as criminal since it does not violate any accounting principles or security laws and this makes auditors and regulators less concerned about such behaviour. Given these consequences, and the prevalence of RAM among listed companies in Nigeria, it is, therefore, appropriate to recommend as follows:

It has become imperative for regulators as a matter of priority to monitor and where possible be part of the induction and the annual educational programmes organised by the board of directors. At such programmes, educating managers on the harmful effects of engaging in RAM would be appropriate. Sensitisation workshops can also be organised by regulators to achieve this objective rather than waiting for the consequences to manifest. The recommendations on induction and annual education of directors as well as ethical issues and professionalism are peculiar to all the codes of corporate governance as revealed in Appendix 9. It should, therefore, attract special attention and priority.

Encouraging sound ethical culture will go a long way in ameliorating incidences of RAM. Research has revealed that hiring industry specialist auditors cannot constrain RAM, but rather it encourages switches from accrual-based manipulations to RAM (Yu, 2008; Zang, 2012). Perpetrating RAM is not a violation of any principle, law or standard, but it is an unethical behaviour with enormous consequences. It is needful to consider a paradigm shift in organisational management, imbibing a “family syndrome” using Siemens AG as a case study. Schnebel and Bienert (2004) view ethics as a prerequisite and a necessity in conducting business. Advantages abound in embracing ethics-based value-added management as is the case with Siemens, Boeing Corporation, and SAP (Gilman, 2005; Paine, 1994). The more both the principal and agent believe in the same values and adhere to the same fundamental ethical convictions, the smaller the uncertainty and the agency problem (moral hazard) will be (Schnebel & Bienert, 2004).

The audit committee members’ independence should be enhanced, and as a matter of priority, access to both internal and external auditors must be ensured. They should also have unhindered access to management, employees, official documents, and such other issues that may be necessary for discharging their oversight functions.

There is the need for regulatory authorities to be specific on the additional directorship seats allowable to directors in either an executive or non-executive capacity. It is only the NCC (2016) code in Section 7.9 that is specific on this. It went further to warn on the consequences of concurrent directorships on too many boards.

It is essential to emphasise the need for the audit committee to meet quarterly, if not for anything in particular, to at least review the quarterly reports published by companies. International standards recommends that the audit committee should meet at least four times a year to be effective in its duties in probing the quarterly financial reports required from listed companies (BRC, 1999). Only the NCCG (2018) and the CBN (2014) codes recommend quarterly meetings. The NCC (2016) code recommends at least two meetings. Regular meetings of the committee are an essential attribute in discharging its responsibilities effectively (Garven, 2015).

It is needful to address issues of gender imbalance in the Nigerian corporate boards in line with international best practices (Cabrera-Fernández *et al.*, 2016; Fakeye *et al.*, 2012; Lincoln & Adedoyin, 2012). It is a recommendation in NCCG (2018) and other Nigerian codes that the board should promote diversity in its membership across a

variety of attributes, including gender. Female inclusion in corporate directorship has become an international phenomenon. Several studies, including this study, have attested to the need and relevance of this inclusion.

The need to have an operational/functional official website has been recommended as a prerequisite to the dissemination of information and publication of annual and quarterly reports by virtually all the codes of corporate governance. In the course of the data collection, it was observed that most of the sampled companies did not have a functional website. The website of some is akin to non-existent. The paucity of information on some of these websites is to the extent that updated information was not available of even the corporate head office address. Many companies did not have their published annual reports on their websites. Monitoring and ensuring the functioning of these websites will facilitate the availability of necessary information to the various stakeholders and the general public.

The role of the codes of corporate governance is effectual as observed, especially the SEC code, but unfortunately, no provision in the code recommends its review. Provision for periodic review is the only means by which the code can be updated and be abreast with current developments in the international community. Only the NCC that can be said to be correct in its review policy. There is a space of only two years between its codes released so far.

The FRCN should reconsider its recommendation on the dual audit committee, that is, statutory audit committee and board audit committee. No listed company in Nigeria is presently operating this policy except in the banking sector. Rather than strengthening the audit committee, it may create an unhealthy relationship between the two identical committees. It could be interpreted as an attempt to frustrate the representation and participation of the shareholders in the committee as enshrined in the CAMA. The review of the codes of corporate governance in Chapter Two revealed that besides the CBN code, there is no code with such a recommendation. Also, it may create an unhealthy relationship between the regulatory authorities and the shareholders' association. It is more feasible that a lot can be achieved if there is a harmonious relationship between the regulatory authorities and the shareholders' association.

9.5 Limitations of the study

In most studies, constraints could occur in either the design or the methodology. In other instances, it could be both the accessibility of data and the interpretation of the results of the study. Given this, both the researcher and users alike need to be wary of the relevant limitations as they intend to develop and interpret the results of the study or clarify their meaning (Anderson & Poole, 2009).

However, a few limitations exist for this study. A substantial sample size consideration is an assumption which can limit the results in logistic regression. The sample size used in the logistic regression of the codes of corporate governance and RAM was not as large as that used in the attributes of the audit committee and RAM. This explains why the regression was not feasible using the binary scale as predictor variables. The regression used data with a five-scale measurement, and that gave the optimal results reported.

Secondly, the data used in the logistic regression was collected using a questionnaire. No survey is without flaws (Jia & Harman, 2011; Liu, Ng, Zhou, & Haeberle, 1997). There are instances where respondents might lie or provide responses that they think are expected of them or portray them and their firm in a good light, and this situation was observable in some responses to the statements on female directorship. It is also possible that the questionnaire lacked clarity in certain areas, which caused respondents to interpret statements differently. However, the questionnaire was pilot-tested to remove ambiguities, ensure it was understandable enough and time to complete was reduced.

Thirdly, the respondents were limited to only audit committee members of the sampled firms. Therefore, the views captured are those of the audit committee members. There are possibilities that divergent views could have been obtainable if the survey was extended to other board members, CFOs, internal and external auditors, and company secretaries.

Fourthly, the low response rate to the survey could be another cause for concern. The refusal of some company secretaries to accept questionnaire for onward distribution to their audit committee members was a challenge. Some cited the ‘voluntary’ clause in the consent letter as a reason for refusal, while others insisted that it is the company’s policy to not respond to questionnaires. It is possible that more in-depth insight would

have been attainable with an enhanced response rate. However, as discussed in Chapter Seven, the questionnaire survey was only one of the two data collection methods adopted in the study and the main objective of the questionnaire survey was to complement the archival data regression results by acquiring more insight so that the findings obtained from the archival data regression results could be more understandable.

Fifthly, the non-availability of financial data on listed companies in Nigeria in most of the databases, especially for the relevant period of this study (1999 - 2014) was challenging. Collecting data for 16 years for 74 companies came with a considerable cost and energy, especially with no access to a database. The libraries of the two major regulatory authorities (SEC and NSE) did not have the required annual reports and audit committee information for all the relevant companies under this study.

Sixthly, studies of this nature come with enormous constraints. There was the challenge of collecting both secondary and primary data for the study. The requirement to possess reasonable analytical knowledge and skill, for both secondary and primary data analyses, is quite a task. The non-consideration of the study duration of the programme by the awarding institution was another concern together with the financial burden.

Lastly, the examination of the impact of the audit committee attributes on accruals management and RAM is beyond the objectives of this study. Although, many studies as stated in Chapters One and Four, have examined audit committee attributes and accruals management none have so far investigated the two types of earnings management. There were also other audit committee attributes that were not considered in this study, such as audit committee shareholdings. The attributes investigated were selected from the literature reviewed, and the need to enrich existing knowledge on them. It should also be noted that many board characteristics, such as size, meetings, diversity, CEO-duality, etc, were also not considered as this current study specifically investigates audit committee attributes. The choice of board independence as a control variable amidst other board characteristics was discussed in Chapter Five, S.5.9.

9.6 Research contribution

The contribution of this research study is observable from two aspects, that is, empirical and methodological. Firstly, the empirical contribution provided an understanding of which audit committee attributes can significantly reduce or decrease the prevalence of

RAM among Nigerian listed companies, thereby extending existing literature to cover all sectors (except the financial sector), as previous studies of this nature concentrated on manufacturing sectors only. Secondly, the methodological contribution enriches the positivist paradigm of audit committee research studies, through a multimethod research design using methodological triangulation. All previous studies of this nature have used mostly the archival research method. There are no known studies on audit committee attributes and RAM that have used a multimethod research design to date.

9.6.1 The empirical contribution

There are a few studies on audit committee attributes and RAM. In Nigeria, there are two of such studies, and both concentrated on manufacturing sectors (Bello *et al.*, 2015; Hassan & Ibrahim, 2014). The scope (six years) and the sample size (20 listed manufacturing companies) of the two studies are the same. This current study consisted of 74 listed companies comprising all sectors except the financial sector and covered a period of 14 years (2001 - 2014). Sixteen years of data (1999 - 2014) was necessary for each of the sampled firms. The choice of this period was purposeful. The two codes of corporate governance introduced so far by the SEC (the regulator of all the sampled companies) all fall within this period. The first one was in the year 2003 and later reviewed in 2011. Before this current study, there has been no study that has examined the impact of these codes on RAM in Nigeria.

Before now, there was no attempt to confirm or get an in-depth explanation of regression estimates of audit committee attributes and RAM using more than one research method. This challenge became surmountable in this study through multimethod research using methodological triangulation. In an earlier study, Jick (1979) observed that conducting research using the multimethod design is beneficial whether there is congruence or not. Congruency affords confidence in the result while divergent results give rise to alternative, more complex explanations. Critically, with this study, there were both convergent and divergent results.

It afforded enriched explanations due to the methodological triangulation employed. The impact of ACFLT and ACFDR on RAM were both considered unexpected and surprising from the regression estimates, but a better picture was made possible due to the instrumentality of methodological triangulation. The same was a better understanding afforded in the interpretation of the divergent findings on ACMDR and

RAM. All these enriched and better interpretations of the empirical findings would have been impossible if only one method were involved in the parametric estimations.

The data used were extracted manually from company annual reports, and this gives credence and originality to the study. The data collection period covers over two years of extensive fieldwork. This was due mainly to the sample size (74 companies) and the period required, that is, 1999 to 2014. It is essential to reemphasise here that the data used in this study were both secondary and primary, collected through archival and survey instruments, respectively. Non-availability of the relevant archival data on any database as earlier mentioned was responsible for the extended fieldwork in the first instance. This study is the first to use this dataset collected either in Nigeria or elsewhere, and this makes this research original. The data offers for the first-time direct evidence on the impact of audit committee attributes and RAM in Nigerian listed companies. The sample size was an adequate representation of all sectors except for the financial sector for reasons discussed earlier. This spread of the sample size enhanced the generalisation of the findings unlike prior studies that concentrated mostly on the manufacturing sector.

9.6.2 The methodological contributions

This study is positioned within the positivist paradigm using a multimethod quantitative research approach, which is using two quantitative research approaches by way of methodological triangulation (otherwise known as within-method triangulation). Several studies that have previously examined audit committee attributes/characteristics on RAM have used monomethod mono-strand research, that is, the use of either a quantitative or a qualitative research method. This is a common practice in accounting research (Lukka, 2010). This study contributes methodologically by deviating from the narrowness that characterises accounting research in the opinion of Lukka (2010) and Merchant (2010). Further, the discussions on the methodological contributions of this study follow two perspectives.

First, it is the archival data regression perspective. The choice of an efficient estimator is considered critical in any regression analysis especially in resolving the non-spherical error behaviours dominant in panel data. Therefore, the choice of FGLS (Groupwise heteroscedasticity + autocorrelation) estimator following the opinion of Moundigbaye *et al.* (2018) is considered essential. In line with the recommendation of Moundigbaye *et*

al. (2018), bootstrapping the parametric estimates became appropriate. This study is the first to use this estimator and bootstrapping in examining the impact of audit committee attributes on RAM in Nigerian listed companies.

Second, there have been divergent opinions on the use of Likert scale data for parametric analysis. Several studies argue against using Likert scale data for parametric analysis, insisting that it is of an ordinal or rank-order nature (Boone & Boone, 2012; Gardner & Martin, 2007; Jamieson, 2004). While others believe that Likert scaled-data can effectively be analysed as interval scales parametrically (Linacre, 2002; Lubke & Muthén, 2004; Norman, 2010; Waugh, 2002). This study was the first to apply parametric estimation using Likert scale data to examine audit committee attributes on RAM among listed companies in Nigeria.

9.6.3 The theoretical contributions

The results from this study justify the choice of agency and stakeholders theories as to the underpinning theories. The prevalence of RAM is an indication of agency relationship problems among firms listed in Nigeria. The secondary data regression results indicated that the SEC (2003, 2011) codes of corporate governance have no significant effect on RAM practices. However, the logistic regression results indicated a contrary view, and it showed that both ICCGV and CCCGV are negatively significant in constraining RAM. This result was from the opinions expressed by the audit committee members (respondents). It may be deduced that weak corporate governance mechanisms are responsible for poor compliance or non-compliance in some cases, thereby causing the insignificant effect recorded from the secondary data regression results. This means that much is required to achieve compliance; therefore, every stakeholder must participate in ensuring sound ethical commitments and total compliance to the spirit of the code of corporate governance.

9.7 Future research

Future research opportunities could emanate from the limitations of the study. Firstly, this study can be extended, especially from the survey perspective. The extension of the survey data collection could include members of the executive management, the staff of audit firms, internal auditors, CFOs, the board of directors, institutional investors, company secretaries, and members of the shareholders' association. This will widen the scope of the opinions and enable access to divergent views on the same study.

Collecting qualitative data is also possible on the same topic using interviews instead of a questionnaire, which will change the research method to a mixed-method research study.

Secondly, further investigation of the attributes that are statistically significant in this study could be undertaken. The relationship between audit committee independence and RAM, for example, would be a research interest to investigate further. The same should be for other attributes not included in this study as well. Thirdly, it may be appropriate to investigate the pre and post 2011 SEC code on RAM and also the impact of the adoption of IFRS on RAM among listed companies in Nigeria.

Fourthly, board characteristics could be investigated alongside those of the audit committee to ascertain their impact on RAM. Examining the impact of audit committee attributes on accruals management and RAM could also be a good idea. Finally, comparative studies with some developing nations of the world could also be a research idea. This study can also be replicated in some other African countries to ascertain and compare the effectiveness of their audit committees and thereby present a more extensive and substantial analysis of economies from developing countries.

9.8 Summary

This study has been able to achieve its main objectives. It has also been able to answer all of the research questions posed in Chapter One. More specifically this study has comprehensively investigated the attributes of the audit committee and RAM prevalence in Nigeria, using both archival and questionnaire survey data. It has also identified some attributes of an audit committee that can significantly constrain RAM. The significant findings were highlighted, recommendations made, contributions of the study revealed and areas for further research that could extend or build on the present study were provided.

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APPENDIXES
Appendix 1: Administered questionnaire
QUESTIONNAIRE
SECTION A (GENERAL QUESTIONS)

The questions in this section are on audit committees.

Instructions:

Please tick ☐ in every question appropriately.

All questions are in bold prints while research questions are bold and italicized.

1. What is your gender: Male ☐ Female ☐

2. How many members are there on the audit committee which you belong?

2 members ☐ 3 members ☐ More than 3, please specify _____ members.

3. How many non-executive directors are members of this company's audit committee?

One ☐ Two ☐ More than 2, please specify _____ None ☐

4. Are you the chairman of the audit committee? _

Yes ☐ No ☐

5. How many years have you served as a member of the audit committee in this firm?

1year ☐ 2years ☐ 3years ☐ More than 3years, please specify _____

6. How many years have you served as a member of an audit committee generally?

1year ☐ 2years ☐ 3years ☐ More than 3years, please specify _____

7. How many female members are in the audit committee in this firm?

None ☐ 1 member ☐ 2 members ☐ More than 2, please specify _____ members.

8. Are you the chairman of the board of directors?

_ Yes ☐ No ☐

9. In the financial year ended on 31/12/2014, how many meetings of the audit committee took place?

_ 1 Meeting ☐ 2 meetings ☐ 3 meetings ☐ More than 3, please specify _____

10. Does the audit committee of this company have a charter? _

Yes ☐ No ☐

11. What are your qualifications? (You can tick more than one box) _

B.Sc. in Accounting/ Finance ☐

Chartered Accountant (ACA) ☐

Certified Public Accountant (CPA) ☐

Postgraduate degree in Accounting or Finance ☐

Others, please specify _____

12. Besides your qualification, you are also..... (You can tick more than one box) _

A member of a registered professional body, specify _____

Having banking or investment management experience ☐

Holding or having held the position of Chief Executive Officer ☐

Chief Financial Officer (CFO) of this or other firm quoted on NSE. ☐

None of the above, specify if different from all the above

13. In the past 5 years were you an employee or an executive of this company?

Yes ☐ No ☐

14. Besides your membership of the audit committee, do you have any other relationship with this company? (You can tick more than one box)

Major Dealer ☐

A management consultant ☐

Relation of a staff/executive director ☐

Other, please state _____

None ☐

15. Would you like a soft copy of the completed thesis sent to your email?

Yes ☐ No ☐

If yes, kindly provide your email address

SECTION B (SPECIFIC QUESTIONS.)

The questions in this section are specific to the audit committee members. Please provide your opinion on the following statements by ticking only one box for each question.

Research Question 1. Is there a prevalence of real activities manipulations in Nigerian quoted companies?

16. Managers are involved in sales manipulations by attempting to boost sales during the year by granting simple credit terms or price discounts in order to achieve certain level of earnings.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

17. Managers reduce expenditures such as selling, general and administrative, advertisements and research and development in order to achieve outcomes that will guarantee advantage in terms of contractual obligations.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

18. Managers may increase earnings to avoid harsh debt agreements by increasing units produced beyond requirements so as to reduce total cost per unit which will eventually bring down the cost of sales.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

19. Manipulation of Sales, Discretionary expenses and productions are carried out with the basic aim of deceiving unsuspecting stakeholders to believe that reported earnings are achieved through normal operational business activities.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

20. Real activities manipulations, either by sales, discretionary expenses or production is an engagement meant to benefit the executives/management, which is capable of destroying the information quality of financial statements.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

Research Question 2. To what extent does the attributes of audit committee members (independence, financial literacy, size, frequency of meeting, and multiple directorships) impact on real activities manipulations in Nigerian quoted companies.

FINANCIAL LITERACY

21. Financial literacy means members' ability to understand financial statements, please rate the financial literacy of this company's audit committee between 1- 5 (1 for very weak and 5 for very strong)?

1. ☐ 2. ☐ 3. ☐ 4. ☐ 5. ☐

22. Audit committee members are able to assist management in identifying and assessing major risks facing the company and suggesting ways of overcoming them.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

23. I, as an audit committee member lack a good understanding of the financial statements

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

24. The presence of a financially literate member will assist in reducing the managements' desire to manipulate real activities in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

25. The financial literacy of audit committee members makes no difference on the existence of real activities manipulations in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

INDEPENDENCE

26. There is an atmosphere of openness and trust among audit committee members, everyone feels free to speak-out and pursue issues to a logical conclusion.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

27. Audit committee members have unhindered access to financial statement, internal control system reports, audit reports of both the internal and external auditors and managements' report and responses to audit queries etc.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

28. Independence of audit committee members is capable of reducing the managements' motivations to manipulate real activities in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

29. Independence of audit committee members makes no difference on the managements' desire to manipulate real activities in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

30. The audit committee enjoys a smooth working relationship with both the internal and external auditors along with the board of directors.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

MEETINGS

31. We have sufficient number of meetings, convened appropriately to address basic financial reporting responsibilities.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

32. We are at liberty to invite the right individuals to attend our meetings especially those with professional skills or knowledge on issues on the agenda.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

33. Audit committee meetings are not conducted in a rush, members have access to every item on the agenda well in advance. This affords members quality time of review before meetings.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

34. Audit committee meetings make no difference on the managements' falsification and manipulative desires.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

35. Audit committee meetings will enhance managements' falsification and manipulative tendencies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

FEMALE DIRECTORSHIP

36. The female audit committee members are accommodating.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

37. Female audit committee members exhibit greater interpersonal relationship than their male counterpart.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

38. By the way they relate and associate with others, issues are resolved easily and thoroughly when a female director is a member of the committee.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

39. Women need to be given more opportunities to become corporate directors in Nigeria, even if it means making it mandatory as is being contemplated in United Kingdom and some other civilized countries.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

40. The presence of a female member in an audit committee will promote managements' desire to manipulate real activities in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

41. Female membership in audit committee makes no difference on the management's tendency at manipulating real activities in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

MULTIPLE DIRECTORSHIPS

42. How many directorships post do you hold either in executive or non- executive capacity?

One ☐ Two ☐ Three ☐ More than three, please specify _____

43. Audit committee member who hold several directorship seats in too many companies may have little time in fulfilling their responsibilities in such capacity.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

44. Multiple directorships promotes experience and skills of such director which eventually becomes an advantage and make them effective as audit committee members.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

45. The presence of audit committee member with several directorship seats will reduce real activities manipulation in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

46. The presence of audit committee member with several directorship seats makes no difference on whether management engage in real activities manipulation or not.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

SIZE

47. There is the right combination of members in terms of skills, experience and basic knowledge of the operational object of the company.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

48. The audit committee meetings always end in disagreement and misunderstanding which is largely attributable to its size.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

49. The size of the audit committee enables shared responsibilities among members which allow matters to be resolved in details and timely.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

50. The audit committee size makes no difference on the likelihood of management indulging in falsifications and manipulations of reported earnings in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

51. Audit committee size will promote managements' aspirations to manipulate real activities in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

Research Question 3. Does the introduction of the codes of corporate governance by the Securities and Exchange Commission (SEC) in 2003 and 2011 impact on real activities manipulations in Nigerian quoted companies?

52. The introduction of the code of corporate governance in 2003 is a right move in the right direction.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

53. The introduction of the code of corporate governance in 2003 does not have any effect on real activities manipulation in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

54. The introduction of the code of corporate governance in 2003 has aided managements' desire to manipulate real activities in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

55. The new code introduced in 2011 is not in any way different from the previous one introduced in 2003.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

56. The change of the code of corporate governance in 2011 has no effect on management's desire to manipulate real activities in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

57. The change of the code of corporate governance in 2011 has encouraged managements' desire to manipulate real activities in Nigerian quoted companies.

Strongly Disagree ☐ Disagree ☐ Indifference ☐ Agree ☐ Strongly Agree ☐

Appendix 2: Information Sheet and Consent Letter

Dear Prof/Dr/Chief/Mr/Mrs

My name is Samuel Gabriel, an accounting doctoral student in School of Accounting, Economics and Finance, University of KwaZulu-Natal, Westville Campus, Durban-South Africa. My contact numbers: +27715507313; +2348060770525 and email address: gabrielsamuel52@gmail.com

You are being invited to consider participating in a study that involves research on audit committee attributes and real activities manipulation in listed companies in Nigeria. The aim and purpose of this research is to empirically substantiate the effect of audit committee attributes on real activities manipulations in Nigerian quoted companies, as impacted by the introduction and review of the codes of corporate governance. The study is expected to enroll all audit committee members of companies quoted on the Nigerian Stock Exchange as at 31st December, 2014. It will involve two pronged mixed-methods approach using both primary and secondary data by firstly conducting a regression analysis (using secondary data) and secondly by survey research (using primary data) to probe deeper into the results of the regression analysis (this will provide a triangulation of the results). The primary data (survey research) will serve a complimentary role by giving a deeper and wider understanding to the regression results from the secondary data. The duration of your participation if you choose to enroll and remain in the study is expected to be one week. Within this period it is expected that you would have completed the questionnaire and returned it back to me through my email (as indicated above).

The study does not involve any risk and/or discomforts. We hope that the study could spark off a need for policy review and overhaul in favour of corporate audit committee by ensuring their effectiveness and efficiency in order to achieve the essence of their formation and in line with world best practices; it could attract attention to gender sensitivity in the composition of audit committee in Nigeria as this is a trend in other developed economies; It will provide empirical evidence on the effect of the introduction and the subsequent review of the code of corporate governance by the Securities and Exchange Commission; It will also be relevant to the investing public and other stakeholders who will be at the receiving end if quality financial reporting is not achieved in Nigerian listed firms, to mention but a few.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee. In the event of any problems or concerns/questions you may contact the researcher the above contact details or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows: **Humanities & Social Sciences Research Ethics Administration**, Research Office, Westville Campus, Govan Mbeki Building, Private Bag X 54001, Durban 4000, KwaZulu-Natal, SOUTH AFRICA, Tel: 27 31 2604557- Fax: 27 31 2604609, Email: HSSREC@ukzn.ac.za

You are assured of the utmost confidentiality of your response to this questionnaire. The only person that will have access to the data collected beside me is my supervisor; therefore your anonymity is guaranteed since no contact details are required on the questionnaire. However, you are at liberty to decline participation in the survey. Your participation in the study by responding to the attached questionnaire will be deemed consent and if otherwise it will be deemed as withdrawal.

CONSENT

I have been informed about the study entitled **Attributes of Audit Committee and Real Activities Manipulations of Nigerian Quoted Companies** by Gabriel Samuel.

I understand the purpose and procedures of the study. I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

I have been informed about any available compensation or medical treatment if injury occurs to me as a result of study-related procedures.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at School of Accounting, Economics and Finance, University of KwaZulu-Natal, Westville Campus, Durban-South Africa. Contact numbers: +27715507313; +2348060770525 and email address: gabrielsamuel52@gmail.com

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact: **Humanities & Social Sciences Research Ethics Administration**, Research Office, Westville Campus, Govan Mbeki Building, Private Bag X 54001, Durban 4000, KwaZulu-Natal, SOUTH AFRICA, Tel: 27 31 2604557- Fax: 27 31 2604609, Email: HSSREC@ukzn.ac.za



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Appendix 3: Ethical clearance

18 April 2016

Mr Gabriel Samuel (214585109)

School of Accounting, Economics & Finance
Westville Campus

Dear Mr Samuel,

Protocol reference number: HSS/0204/016D

Project title: Attributes of Audit Committee and Real Activities Manipulations of Nigerian Quoted Companies

Full Approval — Expedited Application

In response to your application received on 03 March 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

Please note: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter

Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shéhuka Singh (Chair)

/ms

Cc Supervisor: Professor Lesley Stainbank and Dr Farai Kwenda

Cc Academic Leader Research: Dr Harald Ngalawa

Cc School Administrator: Ms Seshni Naidoo / Ms Nondumiso Mfungeni

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Telephone: (0) 31 260 3587/8350/4557 Facsimile: (0) 31 260 4609 Email: ximbap@ukzn.ac.za | snvmæn@ukzn.ac.za | mohunp@ukzn.ac.za

Website: vmw.ukzn.ac.za

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Appendix 4: Letter of introduction



6 June 2016

The Chief Executive Officer,
Nigerian Stock Exchange,
Stock Exchange House,
2-4 Customs Street,
Lagos,
Nigeria.

Dear Sir,

LETTER OF INTRODUCTION

I am writing to introduce Mr. Gabriel Samuel who is about to conduct an empirical study on the attributes of audit committee and real activities manipulations in Nigerian listed companies. This is part of the requirements for the award of the PhD in Accounting in the School of Accounting, Economics and Finance, College of Law and Management Studies, University of KwaZulu-Natal, Westville Campus, Durban, South Africa.

I will greatly appreciate it if you could permit him to have access to the quarterly and annual financial and non-financial information of the relevant companies. This will afford him access to the required data necessary to accomplish his doctoral thesis.

Thank you for your understanding and support. If you desire more information, please contact me at the postal address shown below or send an email to stainbankl@ukzn.ac.za.

Yours sincerely,

Lesley Stainbank (Professor)
Supervisor

School of Accounting, Economics and Finance

Postal Address: Private Bag X54001 Durban 4000

Telephone: +27 (0) 31 260 8076 (Mrs D Stillies) Facsimile: +27 (0) 31 260 8436 Website: www.ukzn.ac.za



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Appendix 5: Letter of introduction II



2 December 2016

The Chief Executive Officer
Nigerian Stock Exchange
Stock Exchange House,
2-4, Custom Street,
Marina, Lagos.

Dear Sir,

Re: Letter of Introduction - Gabriel Samuel

I refer to my letter of 6th June, 2016 which requested that Gabriel Samuel, a PhD student under my supervision, be assisted to access quarterly and annual financial and non-financial information of companies relevant to his studies.

He has found it very difficult to access the annual reports of some companies. The list of these companies and the related years are hereby attached. We are aware that some of these companies were recently delisted (as at 01/12/2016) but if prior to now they have submitted the financial reports required for his study, can you kindly allow him access to them. If no submissions were made in respect of some or all the required financial statements, please can you confirm that so that he can advance to the next stage of his study.

His study covers ninety six (96) companies continuously listed on the Nigerian Stock Exchange (NSE) between the years 1999 to 2014. Data collection has taken him almost a year now. He has been to the Libraries of Securities and Exchange Commission (SEC), NSE (both at Abuja and Lagos), Independent Shareholders' Association of Nigeria (ISAN). He has visited most of the head offices of these companies especially those within and around Lagos. Whatever assistance you can render in this regard will be most appreciated.

Thank you for granting him access to the closing share prices of all the companies for all the relevant years. We look forward to enjoying further support and assistance.

Many thanks in anticipation of your quick and favourable response.

Yours sincerely,


Lesley Stambank - Professor and supervisor

School of Accounting, Economics and Finance

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Appendix 6: Letter of introduction III



School of Accounting, Economics and Finance,
University of KwaZulu-Natal,
Westville Campus,
Private Bag X54001
Durban-South Africa.
1st May, 2017.

The Managing Director/CEO
.....
.....
.....

Sir,

LETTER OF INTRODUCTION

I am writing to formally introduce Mr. Gabriel Samuel who has been in the field for about a year now collecting data for an empirical study on the attributes of audit committee and real activities manipulations in Nigerian listed companies. His study involves seventy one (71) companies consistently listed on the Nigerian Stock Exchange (NSE) between the years 1999 to 2014 and which have the required data necessary for the study. Your company falls in this category.

This is part of the requirements for the award of a PhD in Accounting in the School.

I would greatly appreciate it if you could assist him to administer the questionnaire on your current audit committee members. This will enable him to have the required data towards completing his doctoral thesis.

Thank you for your understanding and all the support you have accorded him so far. If you require more information, please email me at stainbankl@ukzn.ac.za.

Yours sincerely,

A black rectangular box redacting the signature of Prof. Lesley Stainbank.

Prof. Lesley Stainbank (Professor Emeritus)

Supervisor

School of Accounting, Economics and Finance

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100 YEARS OF ACADEMIC EXCELLENCE

Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

Appendix 7: Evidence of payment for historical data at NSE


THE Nigerian
STOCK EXCHANGE
RC: 2321
STOCK EXCHANGE HOUSE, 2/4 CUSTOMS STREET,
P.O. BOX 2457, LAGOS, NIGERIA.

NSE

Received from Gabriel Samuel 7/4/ 2016 No 00882E5

The sum of Twenty Nine thousand four hundred Naira
only Kobo PROFIT 54231756
Being payment for historical data Cheque No

₦ 29,400 [Redacted] Cashier

Appendix 8A: General developmental information on Nigeria

General developmental information on Nigeria

YEAR	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Overall GCI Ranking	94/134	99/133	127/139	127/142	115/144	120/148	127/144	124/140	127/138	125/137	115/140
Population (million)	150.3	154.3	158.5	162.8	167.2	171.8	176.4	181.1	186.0	190.9	195.9
No of Listed Companies	213	214	215	196	189	188	188	183	169	166	164
Market Capitalisation (USD million)	48,062	32,223	50,546	39,028	56,205	80,610	62,766	49,974	29,792	50,605	38,371
Real GDP Growth Rate	5.98	6.96	7.98	7.43	6.61	6.80	6.30	2.70	-1.60	0.80	1.90
Real GDP (USD, billion)	337.04	291.88	363.36	410.34	459.38	514.97	568.50	494.58	404.65	375.75	397.27
GDP per capita USD	2,243	1,891	2,292	2,520	2,747	2,998	3,223	2,730	2,176	1,969	2,028
GNI per capita USD	1,960	2,040	2,140	2,190	2,460	2,720	2,990	2,880	2,470	2,100	1,960
GDP PPP Ranking	41	43	29	30	32	30	NA	21	22	23	24

Note: NA = Not available; GCI = Global Competitive Index
Source: World Economic Forum (2008 – 2018 Editions).

Appendix 8B: Corporate governance world ratings on Nigeria

Some corporate governance world ratings on Nigeria

YEAR	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Strength of auditing & reporting standard	82	102	130	126	113	106	NA	57	56	66	77
Conflict of interest regulation	61	79	107	89	89	108	NA	49	49	55	23
Shareholders' governance	56	70	117	108	91	101	NA	64	50	61	45
Ethical behaviour of firms	95	104	125	96	106	131	NA	123	117	119	NA
Strength of investors' protection	NA	NA	45	47	52	57	NA	55	20	31	NA

Note: NA = Not available
Source: World Economic Forum (2008 – 2018 Editions).

Appendix 8C: Some institutional and infrastructural world ratings on Nigeria

Some institutional and infrastructural world ratings on Nigeria

YEAR	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Participating economies	134	133	139	142	144	148	144	140	138	137	140
Strength of Auditing & Reporting Standard	82	102	130	126	113	106	NA	57	56	66	77
Conflict of Interest Regulation	61	79	107	89	89	108	NA	49	49	55	23
Shareholders Governance	56	70	117	108	91	101	NA	64	50	61	45
Institutional Pillar	106	102	121	111	117	129	129	124	118	125	127
Infrastructural Pillar	120	127	135	135	130	135	134	133	132	132	124
Macroeconomic Stability Pillar	26	20	97	121	39	46	76	81	108	122	130
Health Establishment	126	132	137	140	142	146	143	140	138	136	119
Financial System Pillar	54	57	84	86	68	66	67	79	89	91	131
Electricity Rate (% population)	132	131	138	139	138	141	NA	139	137	136	114
Terrorism Incidence	118	101	121	128	139	142	NA	135	132	133	139
Legal Framework Efficiency in Challenging Regulation	72	85	80	58	65	92	NA	91	85	104	121
Legal Framework Efficiency in Settling Disputes	NA	47	68	55	48	77	NA	83	86	99	111
Diversion of Public Fund	119	119	126	129	135	143	NA	132	127	132	NA
Public Trust of Politician	127	128	125	120	102	121	NA	132	131	130	NA
Favouritism by Government Officials	125	121	124	106	122	141	NA	132	127	125	NA
Wastefulness of Government Spending	118	120	135	122	111	124	NA	131	126	120	NA
Incidence of Corruption	NA	NA	134	143	139	144	136	136	136	148	144
Transparency of Government Policymaking	54	79	126	88	63	111	NA	121	113	106	110
Soundness of Banks	87	92	122	136	129	106	NA	77	83	99	107
Regulation of Securities Exchanges	53	52	82	81	59	72	NA	47	49	57	NA

Note NA = Not available

Appendix 9: Analysis of Nigerian Codes of Corporate Governance

Analysis of Nigerian Codes of Corporate Governance						
Issues analysed	2008 PenCom Code	2009 NAICOM Code	2011 SEC Code	2014 CBN Code	2016 NCC Code	2018 NCCG
Effective date	June, 2008	March 1, 2009	April 1, 2011	October 1, 2014	November 1, 2016	January 15, 2019
Application	Mandatory, rule-based.	Voluntary, principle-based; to be administered using a “comply-or-explain” approach	Introduced in 2011 as voluntary but later became mandatory, rule-based after 2014 amendment.	Mandatory, “rule-based”.	Mandatory, “rule-based”.	Voluntary, principle-based; to be administered using “apply-and-explain” approach
Board chairman	Implied to be a NED; shall be involved in the evaluation of both NEDs and EDs; should manage well his/her relationships and communications with shareholders	Shall be a NED; shall not be granted remunerations beyond the usual entitlements for board appointment	Shall be a NED; should oversee the annual evaluation of the performance of the CEO	The code is silent about the appointment of board chairman, but it implies that he/she should be a NED; the board chairman shall not be a member or chairman of any board committee.	Shall be a NED and be elected by the directors among themselves; the board chairman and the CEO shall neither Chair nor be a member of any committee; the annual performance evaluation of the Chairman and his ability to continue to add value to the board is necessary.	Shall be a NED; if the board decides that a former MD/CEO or an ED should become chairman, adoption of a cool-off period of three years should subsist; he/she needs to engage with other NEDs periodically; should not serve as chairman or member of any board committee;
Separation of powers	No individual shall occupy the position of Chairman and CEO/MD; the PFA/PFC shall disclose the relationship between the Chairman and the CEO, where they are related to each other.	No individual shall occupy the position of chairman and CEO/MD at the same time; the dominance of the board by any one person shall not apply; no two members of the same extended family shall occupy the position of the chairman and CEO/MD of an insurance company at the same time.	No individual shall occupy the position of Chairman and CEO/MD	No individual shall occupy the position of chairman and CEO/MD; there should not be an executive vice-chairman in the board structure; no two members of the same extended family shall occupy the positions of Chairman and CEO/MD or ED of the bank and Chairman or CEO/MD of a bank’s subsidiary at the same time; where the bank is a member of a holding company, not more than two extended family members shall be allowed to serve on the boards of the bank and the holding company.	The positions of CEO/MD and the board’s chairman shall be occupied by two separate persons, to institute and maintain independence and proper checks and balances and prevent incidences of overbearing influence.	The positions of the CEO/MD and that of the board’s chairman should be separate such that no person can combine the two positions; it is allowed to appoint the CEO/MD or an ED as NED in any other Company, provided such appointment is not detrimental to his responsibilities; the MD/CEO or an ED should not go on to be the chairman of the same company; if in very exceptional circumstances the board decides that a former MD/CEO or an ED should become chairman, adopting a cool-off period of three years is necessary.

Board of directors	The board shall assure that the company has a capable management team; it shall monitor and evaluate the performance of the management team regularly; the board can appoint and dismiss an MD; all members of the board shall complete the Code of Conduct forms for directors, issued by the Commission.	Board of directors shall be active and accountable; nominated board members to file with commission Personal History Statement (PHS) form, not later than 4weeks after nomination; monitor and manage potential conflicts of interest of management, board members and shareholders, including misuse of corporate assets and abuse in related party transactions.	Directors should not be board members of companies in the same industry; not more than two members of the same family shall sit on the board of a public company at the same time; no cross memberships on the boards of two (2) or more companies.	The board shall assure strict compliance to the code of conduct for bank directors; procedure for board appointment shall be formal, transparent and documented in line with existing CBN guidelines; no director, either ED or NED, shall be allowed to serve on the boards of a bank and a holding company in a Group structure at the same time.	Subject to the provisions of CAMA, one-third of NEDs should retire periodically by rotation at the licensee's AGM but retiring directors may re-present themselves for re-election; shall be composed as to assure a mix of skills, diversity of experience, and gender; no board member should sit in more than two committees; each board should have a board charter.	The board should have a charter setting out its responsibilities; perform the appraisal of board members and executive management; Shareholders should be provided with biographical information of proposed directors to guide their decision.
Board size	Not specific on size figure; the board shall not exceed the size that will allow it to employ simple and effective methods of work to enable each director to feel a personal responsibility and commitment.	It shall not be less than seven, and not more than 15.	It shall not be less than five.	The board size of any bank or discount house shall be limited to a minimum of five (5) and a maximum of twenty (20).	Not less than five (5) for large telecommunication companies, while for the smaller companies it shall be subject to the provisions of CAMA.	Not specific on board size; the board should be of sufficient size to effectively undertake and fulfil its business.
Board composition	An equal number of ED and NED; the composition of the board and its committees be appropriate, with the right mix of knowledge and skills; At least one INED on the board.	ED & NED, not more than 40% ED; at least one INED on the board to be appointed by the board subject to ratification at AGM	A mix of ED & NED, the majority should be NED with at least one INED; all public companies should have at least one INED on its board.	A mix of ED & NED, the majority should be NED with at least two INED, while that of discount houses shall have at least one INED; shall be knowledgeable in business and financial matters.	A mix of ED & NED, the majority should be NED, minimum of two ED of which one should be the CEO while the other should hold another strategic position; with at least one INED, while larger companies may have two or more INED.	An appropriate mix of EDs, NEDs, and INEDs members such that the majority of the board are NEDs; most of the NEDs should be independent.
Board gender diversity	Not mentioned	Not mentioned	Selection to the board should reflect gender composition; the board should report annually on gender policies and practices, especially as they relate to the executive-level opportunities	Not mentioned	Diversity of gender recommended; the board should ensure that it is so composed as to assure a mix of skills, diversity of experience, and gender.	The board should encourage diversity in its membership across a variety of attributes, including gender.

Board meeting	Quarterly meetings recommended	The meetings shall not be less than four times a year; each member should attend not less than 75% of the meetings annually. Attendance report shall form part of the submissions at the AGM.	Quarterly meetings recommended; every director should be required to attend at least two-thirds of all board meetings to qualify for re-election.	The board's meeting shall be at least once a quarter, and it will enable it to be competent in performing its functions of oversight and monitoring.	The quarterly meeting recommended; for re-election, directors shall attend at least two-thirds of all board and committee meetings.	Quarterly meeting recommended
Board committees	Board committees shall include: the audit committee, the investment strategy committee, the risk management committee, and the nominating committee	The board committees shall include: Finance and General Purposes Committee, Investment Committee, Enterprise Risk Management Committee, Audit and Compliance Committee (to be headed by an INED), Establishment and Governance Committee (an INED to be a member)	In addition to the audit committee required by CAMA, the board may establish a governance/remuneration committee, and risk management committee and such other committees as the board may deem appropriate depending on the size, needs or industry requirements of the firm.	The Board shall establish at least three (3) committees namely board risk management committee (BRMC), board audit committee (BAC) and board governance/nomination committee (BNC); all banks are to establish statutory audit committee in line with CAMA.	The Board shall constitute these committees: audit and risk management committee, governance committee, nomination and remunerations committee.	Adequate oversight will require the board to establish committees responsible for nomination and governance, remuneration, audit, and risk management. The membership of the board committees should be reviewed and refreshed periodically, and each committee should be composed of at least three members, individual board committee charters will indicate where INEDs are required.
Independent non-executive director (INED)	The Commission shall determine the independent status of an INED annually, bearing in mind the criteria outlined in S.4.1.4 (a) to (d) and any other salient factors. The code recognises these criteria: either he/she or any of his relation shall not be an employee of the company or any of its related companies currently or in the past three years; shall not be accepting compensation from the company or any of its related companies	An INED does not represent any particular shareholding interest nor hold any business interest in the company; to be appointed by board subject to ratification at AGM; he/she is critical in the evaluation of the board and management appraisal; serve as a mediating agent in the event of conflict of interest between management, the company and its shareholders.	Shareholding should not exceed 0.1% of paid-up capital; should not be employed or related to any employee of the company or the group in the last three years; all public companies should have at least one INED on its board; is not a representative of a shareholder that has a controlling influence; has not served in any executive capacity in the company or group for the past three financial years; not a professional advisor to the	At least two INEDs shall be board members of banks while the board of discount houses shall have at least one INED as enumerated in the CBN guidelines on the INED appointment.	Independent director (INED) is one holding not more than 0.1% shareholding directly or indirectly in the licensee; shall be a NED who is free of any relationship with the licensee or its management that may impair, or appear to impair the director's ability to make independent judgments; should generally monitor corporate affairs and policies, and act as a check, and present a balance on the acts of the board and management of	Does not possess a shareholding above 0.01% of the paid-up capital of the company; does not have, and has not had within the last five years , a material business relationship with the company either directly, or as a partner, shareholder, director or senior employee of a body that has had, or has, such a relationship with the company; has not served at directorate level or above as the company's regulator within the last three years ;

	other than that meant for board service for the current or past three years; shall not be a substantial shareholder of, or a partner in (with 5% or more equity interest) or an executive officer of any profit-making organisation to which the company made, or from which it received payments significantly, in the current or past three years; if the company is comfortable with the status of an INED, in the event of violation of either of these criteria, it shall disclose in full, to the Commission, the nature of the director's relationship and explain why he should be considered independent		company or the group, except in a capacity of a director; not a significant supplier to or customer of the company or group; has no contractual relationship significantly with the company or group; not a partner or an executive of the company's statutory audit firm, or other consulting firms that have material association with the company in the past three financial years; an independent director should be free of any connection with the firm or its management.		the licensee.	the board should annually ascertain and confirm the continued independence of each INED; it is not desirable to reclassify an existing NED into an INED within the same board; nomination and governance committee should assess the independent status of the INED annually.
Board assessment, appraisal or evaluation	Annual self-evaluation recommended; possible assessment questions listed; to bring objectivity to the process, the board may use an external third party to conduct the evaluation; alternatively, the PFA/PFC may design and institute its internal board review and evaluation process using the nomination committee; the NEDs, led by the INED, shall be responsible for performance evaluation of the chairman, considering the views of the EDs; the Chairman and the NEDs shall be	Board performance appraisal to be carried out annually by an external consultant appointed by the shareholders, and the appraisal report forwarded to the commission.	Board to establish an annual evaluation of its performance, that of its committees, the Chairman and individual directors.	Board appraisal codified in S. 2.8; it shall be conducted by an independent consultant annually covering all aspects of the boards' structure, composition, responsibilities, processes and relationships, as may be prescribed by the CBN, and the report presented at the AGM and a copy forwarded to the CBN.	Board to establish an annual evaluation of its performance, that of its committees, the Chairman and individual directors; the periodic evaluation of the board should happen at least once annually.	Board evaluation codified in S.14; board to establish an annual evaluation of its performance, that of its committees, the Chairman and individual directors; to be facilitated by an independent external consultant at least once in three years.

	responsible for the evaluation of EDs, and the Chairman and the EDs shall be responsible for the evaluation of NEDs.					
Re-election of directors	Not automatic but based on performance evaluation	Based on performance evaluation; each director to attend not less than 75% of the meetings annually to qualify for re-election	All directors to attend at least two-thirds of the board meetings to qualify for re-election	To qualify for re-election, all directors must attend two-third of both board and its committee meetings.	Based on performance evaluation report; all directors to attend at least two-thirds of the board meetings to qualify for re-election; subject to satisfactory performance and the provisions of CAMA, all directors to submit themselves for re-election at regular intervals of five (5) years.	Based on performance evaluation; all directors should endeavour to attend all board meetings to qualify for re-election
NED's remuneration	The Board should inform the shareholders annually on remuneration, published in the annual report and accounts; the report should set out the company's policy on directors' remuneration drawing attention to factors specific to the PFA/PFC.	NEDs shall not be granted remunerations beyond the usual entitlements for board appointment.	Compensation for NEDs shall be fixed by the board and approved at AGM; however, the fees and allowances or other incentives tied to corporate performance, paid to NEDs, shall not be at a level that could compromise their independence.	NEDs' remuneration shall be limited to directors' fees, sitting allowances for board and board committee meetings and reimbursable travel and hotel expenses; shall not receive benefits, salaries, whether in cash or in-kind, other than those mentioned above.	The board shall develop and implement remuneration policies for NEDs, and the policies should reflect the differing roles of EDs and NEDs; the levels of remuneration for NEDs should reflect the commitment, and responsibilities of their role; higher remuneration for more significant time commitment may also be incorporated.	The policy and structure of remuneration for all directors and senior management employees shall be recommended to the board by the remuneration committee.
NED Tenure	Directors shall be appointed for specific tenors, subject to re-election in line with the Guidelines (GL/APPT/01), issued by the Commission.	NED shall not be re-nominated & appointed for more than three terms of three years each.	Subject to satisfactory performance and the provisions of CAMA, all directors should submit themselves for re-election at regular intervals of at least once every three years; NEDs should serve for a reasonable period on the board.	To ensure perpetuity and introduction of fresh ideas, NEDs of banks shall serve for a maximum of three terms of four years each.	Director may serve for three terms of five years each; NEDs should not remain on the board for a continuous period above 15 years.	NEDs tenure should be for a reasonable period on the board (S.12.8).
INED Tenure	Not mentioned	To be determined at AGM.	Not mentioned	Not mentioned	Not mentioned	The INEDs tenure should not exceed three terms of

						three years each (S.12.10).
CEO/MD Tenure	Directors shall be appointed for specific tenures, subject to re-election in line with relevant statutory requirements and sections of the Memorandum and Articles of association	The CEO of the company shall be the person approved by the Commission and shall be a member of the board throughout his/her tenure.	Subject to satisfactory performance and the provisions of CAMA, all directors should submit themselves for re-election at regular intervals of at least once every three years.	The CEO's tenure of a bank shall follow the terms of engagement with the bank but subject to a maximum period of 10 years; maybe broken down into periods not exceeding five years at a time; such a CEO shall not be eligible for appointment in that bank or its subsidiaries.		
CEO/MD, and ED's remuneration	The Board should report to the shareholders annually on directors' remuneration and the policy thereon in its annual report and accounts. The policy should reflect factors specific to PFA/PFC.	The board of directors will decide directors' compensation and seek approval at the AGM.	Remuneration committee recommends compensation structure for EDs, including the CEO for the board's approval; compensation should comprise of component that is long-term performance-related, i.e., stock options and bonuses to be disclosed in the annual reports. Same with ED.	A Committee of NEDs shall determine the remuneration of EDs; EDs shall not receive sitting allowances and directors' fees; where stock options (approved at AGM) are part of executive remuneration or compensation, the board shall ensure that issuing them is not at a discount except authorised by relevant regulatory agencies.	The board should develop a formal remuneration policy for CEO, ED, and senior executives and should link it to both individual and corporate performance; care should be taken not to reward poor performance where severance packages apply.	The remuneration of the MD/CEO and EDs should be structured to link rewards to corporate and individual performances and include a significant component that is related to long-term corporate performance, such as stock options and bonuses.
Claw-back policy	Not mentioned	Not mentioned	Not mentioned	Not mentioned	Not mentioned	Companies should implement a claw-back policy to recover excess or undeserved rewards, such as bonuses, incentives, the share of profits, stock options, or any performance-based reward, from Directors and senior employees.
Reward scheme	Not mentioned	Not mentioned	Not mentioned	Not mentioned	To encourage compliance, the Commission has instituted an annual reward scheme which is an Award of Good Corporate Governance to the most	Not mentioned

					compliant licensee.	
Audit Committee	The board shall establish an audit committee with a specific term of reference; where the Board appoints a committee, it shall issue, in writing, the terms of reference to guide the committee's work and shall also spell out the committee's authorities, and in particular, whether it can act on behalf of the board or has the authority to examine a particular issue and report back to the board with a recommendation.	To be elected at AGM as specified in CAMA; to be headed by an INED with high level of integrity, commitment and discipline; at least one member shall have good understanding of the insurance business; it shall review and ensure the adequacy of whistle-blowing procedures; shall review the terms of engagement and recommend the compensation, appointment or re-appointment of external auditors to the board and the shareholders; there should be a periodic evaluation of committee's performance	Codified in S.30; the board shall establish an audit committee in line with CAMA; the committee shall review and ensure the adequacy of whistle-blowing procedures	Establishment of a board audit committee (BAC) in addition to audit committee which is not a board committee but as recommended by CAMA; the BAC shall be of sufficient size, independence and technical expertise to discharge its mandate effectively.	Codified in S.11.6; the board shall establish an audit committee in line with CAMA; there should be a disclosure of the membership of the audit committee in the annual report; review of whistle-blowing mechanism by the audit committee; the committee shall maintain and recommend to the board a policy of non-audit services provided by the external auditor and must approve the contracts for non-audit services; there should be a report on all related party transactions to the board through the audit committee.	Committee responsible for audit codified in S.11.4; Dual audit committee recommended for all companies (S.11.4.1 and S.11.4.6); without prejudice to CAMA on the statutory audit committee, every company should have a board committee responsible for audit; the board audit committee shall review and ensure the adequacy of whistle-blowing policies and procedures, and that the board should receive summary of issues reported through the whistle-blowing mechanism.
Audit committee composition	The code makes no specific recommendation on this, but request that the board include the composition in the corporate governance report.	It is as specified in CAMA with not more than one ED.	As specified in CAMA; the majority of the board members of the audit committee shall be NEDs.	Statutory audit committee as specified by CAMA while BAC shall consist only of NEDs headed by an INED; has at least three members.	As specified in CAMA; the board chairman and the CEO should not serve on the audit committee but could attend its meeting(s) by invitation.	Dual audit committee recommended; for the statutory audit committee, a chairperson should be elected from amongst its members, and should have financial literacy; for private companies, members of the audit committee should be NEDs, and a majority of them should be INEDs where possible; BAC should be composed of at least three members.
Audit committee meetings	The code makes no specific recommendation on this, but request that the board should include its	To meet three times, and at least once with the external auditor	Shall meet separately and periodically with management, internal auditors, and external	BAC members shall meet at least quarterly.	At least twice in a year, meet with the external and internal auditors at least once in a year.	The committee responsible for audit should meet at least once every quarter; the committee should meet

	conduct in the corporate governance report.		auditors.			with the head of the internal audit function and the external auditors without the presence of management at least yearly.
Audit committee financial literacy	The code makes no specific recommendation on this, but request that the board include a statement on it in the corporate governance report.	Composed of NEDs at least two of whom shall have the requisite knowledge of accounting, financial analysis and financial reporting.	Members should have basic financial literacy and ability to read financial statements; at least one board member of the committee and one member of the shareholders association should know accounting or financial management.	BAC members should have basic financial literacy and ability to read financial statements; at least one of the members shall have relevant qualifications and experience; shall be a qualified accountant or other finance professional with experience in financial and accounting matters.	All members of the audit committee must be members of a recognised body of professional accountants in Nigeria.	All the members of the committee should be financially literate and should be able to read and understand financial statements; at least one member of the committee should be a financial expert, knowing accounting and financial management.
Multiple directorships	Not mentioned	Not specific but implied; each NED shall demonstrate that he/she has sufficient time to devote to the business of the company.	A director of a company may hold concurrent directorships provided however that such concurrent directorships do not interfere with the director's ability to discharge his responsibilities to each board effectively.		Codified in S.7.9; No individual shall serve simultaneously as a director of more than three (3) companies in the communications sector; concurrent service on too many boards may interfere with ability to discharge responsibilities; prospective nominee should disclose memberships on other boards before election; serving directors should give information on other boards prospective appointments.	Directors may hold concurrent directorships (no limit fixed); directors should not be members of boards of competing companies; prospective directors should disclose memberships on other boards, and current directors should notify the board of prospective appointments on other boards. This information should be reviewed continuously by the serving Board members.
External Audit	No recommendation is made on an external audit.	S. 8 requires a company to appoint an external auditor following the recommendation of audit committee and subject to the approval of NAICOM;	Rotation of external auditor codified in S.33; companies should rotate both the audit firms and the audit partners within a time frame of three years	The CBN shall approve the appointment of external auditors. The tenure of external auditors shall be for a maximum period of ten cumulative years, for	The audit committee shall nominate the external auditor for appointment; approve the terms of engagement and remuneration; shall	External audit codified in S.20; tenure not longer than ten years continuously. An audit firm disengaged may be considered for

		the external auditor(s) is/are answerable to the board; the tenure of an appointed external auditor is for a maximum of five years and the auditors' performance shall be reviewed periodically; audit committee shall recommend the re-appointment and compensation of external auditors to the board and the shareholders; the external auditor shall attest to and report on the assessment made by the management on internal audit.	to guarantee independence; external audit firms should be retained for no longer than ten years continuously. When disengaged, could be reappointed after another seven years since their disengagement.	reappointment in the bank until after a period of another ten consecutive years; an audit firm shall not provide audit services to a bank if one of the bank's top officials was an employee of the firm and worked on the bank's audit during the immediate past two years; shall render reports annually on the bank's risk management practices to the CBN; shall not provide client services that shall amount to conflict of interest; shall report annually to the CBN, the extent of compliance with the whistle-blowing Guidelines.	monitor and report on the independence of the external auditor; the audit committee shall maintain and recommend to the board policy of non-audit services provided by the external auditor and must approve the contracts for non-audit services.	reappointment after seven years. Any audit firm whose cumulative tenure has already exceeded ten years at the commencement of this Code should cease to hold office at the next AGM; there should be a rotation of the audit engagement partner every five years; to appoint a retired audit partner to the client's board, there should be an appropriate cooling-off period spanning at least three years.
Whistleblowing	Not mentioned but implied; S.4.3.9 stated that the board should put adequate structures in place by which staff of the company may, in confidence, raise concerns about possible improprieties.	The board is responsible for monitoring potential risks within the company, including recognising and encouraging genuine whistleblowing; the audit committee shall review the procedure put in place to encourage genuine whistleblowing.	Codified in S.32; whistle-blowing policy/mechanism should be established and known to shareholders & all stakeholders; the audit committee shall review and ensure the adequacy of whistle-blowing procedures; a designated senior-level officer should review the reported cases and initiate appropriate action; the board should receive a summary of the reported issues through the audit committee chairman	Codified in S.5.3; banks shall have a whistle-blowing policy made known to all stakeholders; the review of the whistle-blowing policies should be every three years, and the regulatory authorities notified of all such reviews; no bank or other financial institution shall subject a whistle-blower to any detriment whatsoever because s/he has disclosed following the provisions of these Guidelines; copies of whistle-blowing guidelines to be forwarded to the CBN within three months, of issuing the guidelines; quarterly reports rendered	Codified in S.11.4; the board should set in place mechanisms (e.g. hotlines, emails) to aid easy reporting of unethical or illegal practices. The mechanism is to be reviewed by the audit committee; the board should encourage a confidential reporting process covering fraud and other risks.	Codified in S.19; whistle-blowing policy/mechanism should be established and known to shareholders & all stakeholders; the board audit committee shall review and ensure the adequacy of whistle-blowing policies and procedures, and that the board should receive a summary of issues reported through the whistle-blowing mechanism

				in compliance with the provisions of the whistle-blowing guidelines along with the returns on corporate governance compliance status.		
Sanction for non-compliance	Non-compliance to attract sanction by the Pension Commission.	No sanction for non-compliance	Non-compliance sanction codified in S. 37 (a) – (f); non-compliance with the code now attract a fixed fine of ₦500,000 in the first instance, an additional ₦5,000 for every day that the violation continues and any other penalty that the SEC may deem fit in the circumstances (SEC Rule 1.3(h)); while imposing a penalty under this Code, the Commission shall accord the persons in violation a fair hearing.	Non-compliance will attract appropriate sanctions following S. 60 of BOFIA 1991 as amended or as may be specified in any applicable legislation or regulation; the CBN should receive returns on each institution's compliance with the code at the end of every quarter or as may be specified from time to time by the CBN.	Non-compliance with this Code shall attract appropriate sanctions following the Enforcement Processes Regulations, or as may be specified in any applicable legislation or regulation.	The FRCN will monitor the Code through the sectoral regulators and registered exchanges that are empowered to impose sanctions on observed deviations.
Disclosures in the annual report	Evaluation reports on board, board committees, and individual directors to be disclosed along with the corporate governance report; 5.4.1 The PFA/PFC shall include a statement on its website on the level of compliance with this Code.	Information on shareholder who owns directly or indirectly a minimum of (5%) five percentage of shares of the company as well as the shareholders who control the company when acting in concert; show manner of compliance with, or explain any deviation from applicable corporate governance codes; report of attendance at meetings of board and its committees; significant items that are estimated and any deviation from applicable accounting, auditing and corporate governance standards;	Codified in S.32; All board appointments; details of shares held by all directors; remuneration policy and all material benefits and compensation paid to directors; company's risk management policies & practices; corporate governance report; the degree of compliance with the provisions of this Code	Banks are to make robust disclosures beyond the statutory requirements in BOFIA 1991 as amended, CAMA, and other applicable laws; number of board meetings and directors' attendance; remuneration policy and all material benefits and compensation paid to directors; details of shares held by all directors; board appraisal report; the annual report shall disclosure, but not limited to, material information listed in S.5.1.2 (a) – (n); banks and other financial institutions shall include a whistleblowing	Statements of all performance evaluation; membership of audit committee; governance committee should provide input to the annual report in respect of directors' compensation; all companies should report compliance with the code of best practices in their annual reports.	Processes used concerning all board appointments; summary of corporate governance evaluation report included on the company's portal; company's remuneration policy as well as all directors' remuneration; statement by the board on the company's level of application of this code; where the board has engaged independent experts in evaluating and reporting on the extent of application of this code, they should name the consultant and include a summary of the consultant's report;

		related party transactions; all contraventions on which NAICOM imposed penalties and any other regulatory/supervisory body in any accounting year.		compliance status report in their audited financial statements.		statement by the board on the company's environmental, social and governance (ESG) activities; the plan for achieving gender diversity set by the board following its diversity policy.
Disclosures to regulator	Board evaluation report; and report on corporate governance activities within its organisation, not later than two months after its financial year-end; the corporate governance report to the Commission shall include the total number of board meetings held in the financial year and names of the directors that attended each of the meetings.	Board appraisal report; Personal History Statement (PHS) form of nominated board members not later than 4 weeks after nomination; filing with the Commission copy of any global management consulting agreement with any consultant outside Nigeria; the board should forward to the commission performance appraisal report; the internal audit report of each insurance or reinsurance company shall be filed quarterly with the commission.	In their annual report to the SEC , public companies shall indicate their compliance with the Code of Corporate Governance; all disclosures made in the annual report should be disclosures made to SEC (regulator) by public companies.	Board to give quarterly report on compliance with the code not later than seven days after each quarter; external auditors to report annually to the CBN, the extent of the bank's compliance with the code; board appraisal report; external auditors shall render annually, reports on the bank's risk management practices to the CBN; copies of whistle-blowing guidelines to be forwarded to the CBN within three months, of issuing the guidelines; quarterly reports rendered in compliance with the provisions of the whistle-blowing guidelines along with the returns on corporate governance compliance status.	A return confirming board evaluation shall be available to the Commission; Compliance report should be submitted annually to the Commission in the format and Form in Appendix 4 to this Code. The Board should ensure the assurance of the reliability of this Report. The Compliance report codified in S.14.0	FRCN regulates regulators in terms of corporate governance codes.
Code of ethics	All members of the board shall complete the Code of Conduct Forms for directors, issued by the Commission; the board shall put in place a satisfactory process to monitor compliance with the operational law, rules and regulations; the board	No specific provision on code of ethics/conduct; The board shall conduct the business in line with high ethical and sound insurance best practices; board members shall act on a fully informed basis, in good faith, with due diligence and care, and in	Codified in S.36; companies shall have a code of ethics and statement of business practices formulated by the board; the code's requirements are as contained in S.36.2 (a) – (l); adherence should be by all directors, management,	Ethics and professionalism codified in S.7.1; banks shall establish a code of conduct developed in collaboration with management and employees; it shall commit the bank, its board and management (and employees) to the highest	The Board should develop a Code of Conduct with provisions which align with this Code as a minimum standard of ethics to aid ethical culture.	Business conduct and ethics codified in S.24; the board should formulate and periodically review the code of business conduct and ethics.

	should establish guidelines on ethical conducts in line with that issued by the Commission.	the best interest of the company and the shareholders.	and employees; the board should monitor adherence and sanction breaches.	standards of professional behaviour, business conduct and sustainable business practices.		
Minority shareholding	Not mentioned	There shall be the position of a minority shareholder on the board; the board shall treat all shareholders fairly; there shall be equal opportunity to all shareholders	Board to ensure that minority shareholders are treated fairly at all times and protected from unfair actions of controlling shareholders.	The board shall ensure that minority shareholders protection from the overbearing influence of controlling shareholders.	The board should ensure the protection of minority shareholders' interests.	Board to ensure adequate protection of the minority shareholders from abusive actions by controlling shareholders
Shareholders' association	Not mentioned	Not mentioned	Role of shareholders' association codified in S.26; the board shall ensure that dealings with shareholder associations are always transparent and in strict adherence with the <i>Code for Shareholder Association</i> as issued by the SEC.	Codified in S.3.5; the board should relate with the association bearing in mind SEC's code for the association. Where the bank is not listed, its dealings with the association shall be transparent and any applicable code.	Not mentioned	The board should ensure that dealings of the company with shareholder associations are always transparent and in the best interest of the company.
Shareholder's protection	The board chairman should manage well his/her relationships and communications with shareholders	Rights of shareholder codified; directors shall assist the shareholders in exercising their rights by effectively ensuring communication of information that is understandable and accessible on a timely and regular basis; give equal opportunity to all shareholders	The following are issues on shareholders: Meetings of shareholders (AGM), the venue, and notice; resolutions; protection of shareholders' rights; shareholders should have access to the biographical information of proposed directors; the board should ensure equal treatment of all shareholders irrespective of shareholding.	Rights and functions codified in S.3.1; protection of rights codified in S.3.3; annual general meeting codified in S.3.4; in addition to the traditional means of communication, banks shall have a website and shall communicate with shareholders via the website; shareholders shall have the right to obtain material and relevant information from the bank on a timely and regular basis; fair treatment of every shareholder.	Codified in S.10.1; The Board should ensure the equitable treatment of all shareholders; shareholders' engagement with the board recommended	The following issues are on shareholders: general meeting (AGM) (S.21); shareholder engagement (S.22); and protection of shareholders' rights (S.23); the board should develop a policy that ensures appropriate engagement with shareholders. The policy should be on the website of the company.
Stakeholders' issues	The code recommends that the board communicate with the management team, company employees	The industry shall promote transparent and efficient markets, and clearly articulates the division of	Codified in S.35; companies should adopt and implement a communications policy	Rights of other stakeholders codified in S.4.0; stakeholders shall be able to freely communicate	These issues are on stakeholders: stakeholder in S.10.2, stakeholders' considerations S.6.6, and	Stakeholder communication is in S.27; the board should adopt and implement a stakeholder

	and others.	responsibilities among different stakeholders; accounting systems are central to the information needed by investors, customers, supervisors and other stakeholders so that they can make an objective assessment of the effectiveness of the enterprise and its prospects.	that enables the board and management to communicate, & give information on operational management of the firm to shareholders, stakeholders and the general public; The board shall establish a websites and investor-relations portals to publish policies as well as annual reports and the public can access other relevant information	their concerns about illegal or unethical practices to the board, or CBN if the concerns are board-related; banks shall demonstrate a good sense of corporate social responsibility to their stakeholders such as customers, host communities, employees, and the general public.	stakeholders' engagement in S.6.7; extant laws and regulations should guide the licensee's interaction with stakeholders; the board should establish a suitable programme of stakeholders' engagement to be adequately supervised by the board or such committee or person(s) as the board deem fit; managing the gap between stakeholder perceptions and the performance of the licensee should be towards protecting the licensee's reputation.	management and communication policy; the board should ensure that the communication issued to stakeholders are in clear language and are on the company's web portal; companies are encouraged to explore formal mechanisms for engagement and communication with stakeholders, including the use of alternative dispute resolution mechanisms and associated processes (S.24.5).
Sustainability issues	-	-	Codified in S. 28; the interest of stakeholders (employees, host community, consumers, and the general public) must attract adequate attention; recognise corruption as a sustainability issue, and all directors must be transparent and imbibe a culture of zero tolerance to corruption; the board should report the nature and extent of its CSR issues in a specified categorisation annually.	Banks shall demonstrate a good sense of corporate social responsibility to their stakeholders (customers, employees, host communities, and the general public).	The board should actively develop and implement an appropriate Corporate Social Responsibility (CSR) policy and strategies; the focus should be on the establishment of leading practices that enhance public perception, reputation and sustainability of the licensee to balance the interests of stakeholders,	The board should pay adequate attention to sustainability issues including environment, social, occupational and community health and safety; ensures successful long term business performance and let the company be seen as a responsible corporate citizen, contributing to the economic development of its host; the board should monitor the implementation of sustainability policies and report on the extent of its compliance.
Related party transaction or Insider trading	Treated under the conflict of interest	Not codified but stated in the conflict of interest; the board should monitor and manage potential conflicts of interest, including abuse	Codified in S.17 as insider trading; insiders or related party as defined under S.315 of ISA and Rule 110 (3) of the SEC Rules and	The annual report shall disclosure, but not limited to, material information on risk assets; related party transactions; insider-	Codified as related party transaction in S.13.0; records of related party transactions shall be maintained annually, along	Ethical culture codified in S.25; the board should ensure the establishment of policies on insider trading, related party transactions

		in related party transactions.	Regulations, having sensitive or vital information, shall not deal with the securities of the company where such would amount to insider trading as defined under the ISA 2007.	related credits following the extant CBN circular.	with all relevant documents and explanations; the board should receive all related party transactions reports through the audit committee.	and conflict of interest.
Conflict in code application	-	Since it is to be applied voluntarily, then the code with a stricter provision shall prevail.	Code with a stricter provision prevails	-	Code/regulation with a stricter provision prevails	The Code does not make provision for which code will prevail in the event of a conflict, but impliedly the code with a stricter provision prevails.
Biographical information/ Personal History Statement (PHS) on directors	-	Nominated board members to file with commission Personal History Statement (PHS) form, not later than 4weeks after nomination.	Enough biographical details of directors required for appointment and re-election; it should accompany the performance evaluation results and any other relevant information.		The background report and reference check on nominated director shall be available to all board members and shareholders for independent assessment	Shareholders should have access to the biographical information of proposed directors to guide their decision on appointment or re-appointment.
Continuing education	Comprehensive formal induction programmes for NED	Relevant training of board members by the commission, attendance mandatory.	Codified in S. 18 as “orientation and training of directors”; chairman should ensure induction or orientation program for new directors & mandatory continuing professional education for all directors periodically.	To improve the directors’ effectiveness, the bank shall provide training and continuing education arrangements and facilitate access to independent professional advice.	The chairman should ensure the induction program for new directors & mandatory continuing education for all directors; Every licensee should have Board Development Programmes for its Directors (S.7.1(i); S.11.8).	Induction and continuing education codified in S.13; the board should ensure the induction program for new directors & mandatory continuing education for all directors.
Conflict of interest	There should be reasonable measures taken to avoid conflict; spouses of operator (PFA, CPFA, & PFC) employees shall not be allowed to work with the commission. Similarly, spouses of the commission employees shall not be allowed to work with the operators; PFA/PFC shall engage service providers	Monitor & manage potential conflict of interest & abuse of related party transaction; codified; to ensure and maintain high ethical standards for business conduct, each director and employee of an insurance company shall formally disclose to the board or shareholders his/her interest whatsoever	Codified in S.16.1 (a) – (f), Companies to adopt a policy to guide the board and individual directors on conflict of interest situations; cross memberships on the boards of two (2) or more companies shall be disallowed where it will lead to conflict of interest; directors should disclose	Codified in S.7.2; Banks shall adopt a policy to guide the board and individual directors in conflict of interest situations; the board of directors shall be responsible for managing conflicts of interest; directors shall promptly disclose to the board any real or potential conflict of	Avoiding conflict of interest codified in S4.4; each director should avoid conflict of interest whether directly or indirectly through other relationships; directors’ disclosure of areas of conflict of interest codified in S.6.4; save for the EDs, no one should participate in deciding on his	The board should ensure the establishment of policies on conflict of interest; all potential conflict situations should be monitored & disclosed; no retired person (retiring) who has served at directorate level or above, of a relevant regulatory agency, should be appointed as a director or

	that have a relationship with it on an arms' length basis, and customary disclosures shall be in their audited financial statements to that effect; PFA shall not have any relationship with the PFC with which it chooses to do business.	in any: insurance broking firm; loss adjusting firm; actuarial firm; insurance & reinsurance company; audit firms; legal firms.	promptly any potential or real conflict of interest that they may have regarding any matters that may come before the board or its committees; a director should abstain from discussions and voting on any matter in which he/she has or may have conflict of interest.	interest that they may have concerning any matter that may come before the board or its committees; directors shall abstain from discussions and voting on any matter in which they have or may have a conflict of interest.	remuneration; the remuneration committee (composed of NEDs only) shall assist the board, in developing procedures, processes, policies and practices to be adopted in determining executive management remunerations.	top management staff of a company he/she has supervised or regulated until after three years of disengaging from that regulatory agency; a director may not be present when a matter in which he has an interest is being decided and should not seek to participate or influence any discussions or negotiations relating to that matter.
Institutional shareholders/investors	-	Institutional (controlling) shareholders shall not be allowed to dominate minority shareholders; there shall be equal opportunity to all shareholders	Codified in S.27as "institutional shareholders"; they should play critical roles in corporate governance, seek to influence the standard of corporate governance positively; demand for compliance with the principles and provisions of this Code, and seek explanations for non-compliance; should disclose any service contracts and other significant contracts with controlling shareholder(s).	Institutional (controlling) shareholders shall not be allowed to dominate minority shareholders.	The chairman should ensure effective communication and relations with institutional shareholders and strategic stakeholders (S.7.1 (j))	The board should encourage institutional investors to positively influence the standard of corporate governance and promote value creation in the companies; monitor compliance with the provisions of this code and raise concerns where necessary.
Corporate governance evaluation	The Commission should receive the corporate governance evaluation report; compliance to the code to be reported on the website and to the Commission; corporate governance report to the Commission shall include the total number of Board meetings held in the financial year and names	-	The Board of a public company shall ensure that the company's annual report includes a corporate governance report that conveys clear information on the strength of the company's governance structures, policies and practices to stakeholders; it shall include among others, composition of the board	The Corporate Governance report shall disclose the total number of board meetings held in the year and director' attendance	A compliance report should be submitted annually to the commission in the reporting format and form in appendix 4 to this code; the board should ensure the reliability of the compliance report.	Corporate governance evaluation is in S.15; the board should ensure that an annual corporate governance evaluation, including the extent of application of this Code, is carried out; it should be facilitated by an independent external consultant at least once in three years; content of

	of the directors that attended each of the meetings.		in line with S.4 of this code; stating the names of board chairman, the CEO/MD, EDs and NEDs as well as INEDs.			corporate governance report given in S.28.2(a) – (n).
Provision for review	The Code shall be subject to review by the Commission from time to time as the need arises.	NAICOM will regularly review the code and ensure its adaptation with changing circumstances.	Not mentioned, except the review of the code of ethical conducts.	There is no provision for the review of this code, except for that of code of conduct which is to be reviewed regularly and updated when necessary.	The review of this Code may be yearly to allow for continuous improvements, where applicable.	The FRCN may review the implementation of the Code where deviations from the Code recur; other monitoring mechanisms adopted by the FRCN will be on its review of the level of implementation of the code.
Equity ownership	-	Information on a shareholder who owns directly or indirectly a minimum of five per cent of shares of the company as well as the shareholders who control the company when acting in concert	-	Holding equity of five per cent and above by any investor shall be subject to CBN's prior approval. Where the acquisition of such shares is through the capital market, the bank shall apply for a no-objection letter from the CBN immediately after the acquisition.	-	all shareholders are to make available, current information on the ultimate beneficial owners of the significant shareholdings or any shareholders owning, controlling or influencing five per cent or more of the company's shares.

Appendix 10: Regression result without bootstrapping
Regression results before and after firm leverage log-transformation without bootstrapping: Effects of audit committee attributes on RAM

	Before Transformation	After Transformation
	FGLS	FGLS
ACIND	0.0317 (0.0255)	0.0373 (0.0256)
ACFLT	0.0071 (0.0338)	0.0177 (0.0342)
ACMTG	-0.0314*** (0.0112)	-0.0268** (0.0110)
ACFDR	-0.0168 (0.0210)	-0.0174 (0.0209)
ACMDR	-0.0103 (0.0170)	-0.0171 (0.0169)
ACSZE	-0.0185 (0.0142)	-0.0166 (0.0143)
BDIND	0.1649* (0.0985)	0.1856* (0.0988)
ADQLT	-0.0560* (0.0289)	-0.0567* (0.0291)
FRMLV	-0.0501* (0.0273)	0.0546** (0.0243)
FRMSZ	0.0346*** (0.0092)	0.0397*** (0.0091)
FRMGW	-0.0180** (0.0081)	-0.0166** (0.0080)
CONSTANT	-0.5533*** (0.2023)	-0.7202*** (0.1986)
Observations	1036	1036
Replications	1036	1036

Standard errors in parentheses

****, ** and * denotes significance at 1%, 5% & 10% respectively*