EARNINGS MANAGEMENT OF PUBLICLY LISTED COMPANIES IN NIGERIA

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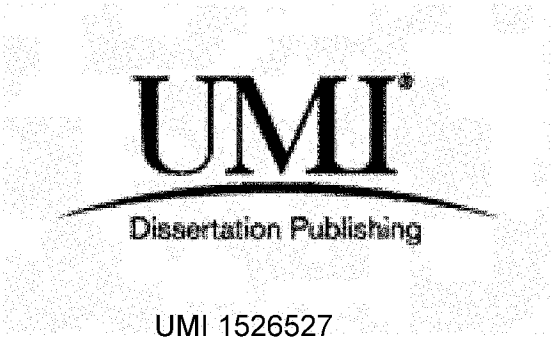

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Abstract

This study documents the deterministic factors and the magnitude of earnings management of Nigerian firms by applying five discretionary accruals models using the cohort of 62 firms listed on the Nigerian Stock Exchange (NSE) over a period of 2003-2012. It is observed that the Kothari et al. (2005) performance matched model provides better explanatory power to determine the magnitude of earnings management of Nigerian companies. Using this model, the study finds that the magnitude of earnings management is 5.02 percent, on average. However, the industry-wise analyses disclose that earnings management is dominant within the manufacturing and energy sector of the Nigerian economy at 48.38 percent followed by the 41.93 percent in the consumer goods sector. The study reveals that the effectiveness of monitoring role by internal and external shareholders is insignificant in improving firm's transparency in financial reporting activities. This finding is indeed useful for Nigerian companies and policymakers to restructure the dynamics of ownership structure in a way that can reduce the extent of earnings management in the manufacturing, energy and consumer goods sectors in Nigeria.

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Glossary

AM – Accruals manipulation

CEO – CEO ownership

CHAIR – Chairman ownership

DA – Discretionary accruals

DADA – DeAngelo model discretionary accruals

DAH – Healy model discretionary accruals

DAJ – Jones model discretionary accruals

DAK – Kothari et al. model discretionary accruals

DAMJ – Modified Jones model discretionary accruals

EM – Earnings management

FIRM SIZE – Log of total asset representing firm size

GROWTH – Growth in earnings

INDV – Individual ownership

INST – Institutional ownership

LEV – Debt to asset ratio

NDA – Non-discretionary accruals

RA – Real activities manipulations

ROA – Return on assets

TACC – Total accruals

TOTAL ASSET – Firms net worth

Dedication

This thesis is dedicated to Almighty **ALLAH** for His protection and unquantifiable blessings. Also to my parents, Alhaji and Alhaja J.O.Sadiq for the wonderful care, supports and encouragement they offered me from childhood till date, to my entire family and friends for their financial, moral and spiritual supports.

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Chapter One: Introduction

Aggressive earnings management has been of greater concern to regulatory authorities around the globe and in particular, Nigerian business environment. Accordingly, the concern was intensified following evidence of inappropriate accounting disclosures and financial recklessness that led to the collapse of five biggest Nigerian banks in 2009 and the Cadbury Nigeria Plc scandal in 2006. These incidences further prove the need for regulatory authorities to tighten the financial reporting activities of publicly listed companies in Nigeria. The reliance on financial reports provides a basis in which investors and owners of firms usually appraise the performance of their companies. Earnings (net profits) are referred to as the main determinant of firm's economic performance and they also provide important information for potential decision about investment. In order to either meet the expectations of shareholders or the desire for personal gains, executive managers render misleading financial results. This is achieved by taking advantage of how accounting rules of the Generally Accepted Accounting Practices (GAAP) are applied to manage the reported earnings in any financial year.

Earnings management is widespread among companies in the world. The menace has been proven by past corporate failures such as Xerox, Enron, WorldCom and Parmalat. Hence, such failures have undermined the credibility of audited financial reports and have cast doubt in the minds of shareholders as to the true economic and financial position of firms. In general, earnings management is defined as follows:

"Earnings management occurs when managers use judgment in financial reporting and in structuring truncations that alter financial reports to either mislead some stakeholders about the underlining economic performance of the firm or to influence contractual outcomes that depends on reported accounting numbers" (Healy and Wahlen, 1999, p.368).

Earnings management is seemingly difficult to detect. CEOs use earnings management to misrepresent firm's financial performance to individual stakeholders of their companies including regulatory authorities, shareholders, and creditors. There are several reasons that encourage managers to engage in earnings management. First of all, managers always desire to meet shareholders' and analysts' expectations. However, some earnings management practices are out of misinterpretation of accounting framework in use while some are deliberate actions to mislead shareholders about CEO performance. A great deal of prior literature endeavor to understand why earnings are manipulated by firms, how it is manipulated, and how such misrepresentation is detected. Some of the motivations are highlighted below:

- **Desire to meet shareholders' and analysts' expectations**

Bartov, Givoly, and Hayan (2002) note that the motivations often suggested for such a behavior are to maximize share price, to boost management's credibility for being able to meet the expectations of stockholders and creditors, and to avoid litigation costs that could potentially be triggered by unfavorable earnings surprises. In a sample of nearly 130,000 quarterly earnings forecast covering over approximately 65,000 firm-quarters observed for 14 years (1983-1997) consisting of U.S. firms, Bartov et al. (2002) document a significant result. The authors find a positive relationship between abnormal returns and positive earnings surprises. They document a

3.2 percent increase in stock returns, on average, during the quarters ending with a positive earnings surprises compared to those across the quarters with negative earnings surprises. However, the authors also point out that the reward to shareholders for meeting analysts' expectation is high market valuation of their stocks while the penalty for failing to achieve the target is to experience low stock valuation. Beating analysts' earnings expectation is therefore well entrenched in today's corporate culture given a strong connectivity between stock valuation and earnings information (Bartov et al., 2002). In this regard, earnings management is not unlikely. There are however evidence that earnings manipulation has an adverse impact in the long run. For instance, Cadbury Nigeria Plc scandal in 2006 was tagged the Nigerian version of the Enron Corporation scandal. The CEO deliberated overstatement of financial position over a number of years (2002–2005) up to $122 million (₦15 million) in order to meet and exceed their ambitious growth targets, which ultimately affected the company's affiliates worldwide (ThisDay Live, 2012).

- **To ensure post-corporate event success**

High magnitude of corporate events, such as, merger and acquisition, management buy-out and initial public offering etc. motivate firms to manage reported earnings. Ericson and Wang (1999) find that acquiring firms in merger tends to manage earnings upward prior to the merger. Likewise, Teoh et al. (1998a and 1998b) argue that managers usually manipulate reported earnings prior to initial public offerings (IPO) and seasoned equity offerings.

- **To satisfy manager's personal gains**

Managers are benefitted from various incentives that encourage earnings management. Debt agreement or job security also constitutes incentive for managing earnings. Investigations

into the Cadbury Nigeria Plc's case uncovered an undisclosed offshore remuneration package paid to the executives by the company's board (ThisDay Live, 2012). For instance, Adewale (2013) reports that early in 2006, Cadbury Schweppes Plc, the UK parent company of Cadbury Nigeria Plc, made considerable effort to increase its shareholdings from 46 to 50 percent in Cadbury Nigeria Plc. In the process of performing its due diligence of the Nigerian corporation, material overstatements were discovered in the books. Further, in October 2006, the board of Cadbury Nigeria Plc declared to its stockholders and regulatory bodies of the discovery of overstatements in the accounts during the period 2002-2005. Price Water House Coopers (PWC), an independent audit firm, reported an overstatement of earnings in between ₦13billion and ₦15billion to the board of Cadbury Nigeria Plc. As a result, the CEO and the Finance Director were eventually sacked. Further investigations revealed that such overstatement was initiated by the sacked executives to fulfil their personal gains. Consequently, the parent company (Cadbury Schweppes Plc) made a provision of £15million as impairment of goodwill held in respect of Cadbury Nigeria Plc.

Therefore, earnings management is by no means a risk-free venture as there are vast majority of adverse effects (e.g. drop in share price) and the consequences are greatly severe. Extant literature highlights the consequences originating from earnings management activities. Some of them that are relevant in context to Nigerian companies are as follows:

- **Reputational risk**

Companies that suffer reputational damage due to corporate scandals experience severe consequences. Regulatory investigation, high cost of capital, and low market share following earnings management announcement are some outcomes resulted from reputational risk. Similar

incidences were faced by Cadbury Nigeria Plc. Likewise, several renowned international and local firms, such as Enron, WorldCom, Arthur Anderson, Intercontinental bank, Oceanic bank, Afribank, Finbank and Union bank, suffered from reputation damage as a result of earnings manipulation. These firms were either bought over or went into complete liquidation after the event. Steven and Susan (2004) suggest that while CEOs that develop favorable reputation get rewarded when they act in good faith (integrity), CEOs that engage in abusive or dysfunctional behaviors weigh up the short-term monetary gains (benefits) and face long-term consequences from a loss of own reputation.

- **Litigation risk**

In most instances, public disclosure of earnings manipulation is followed by court cases from aggrieved shareholders and other concerned stakeholders. In a policy working paper, Brown, Hillegeist, and Lo (2005) find that litigation risk is positively associated with the likelihood of bad news forecasts. As an example, the auditor and the board of Cadbury Nigeria Plc. were sued by over 300 shareholders for breach of duty that caused a magnificent amount of financial loss to shareholders (ThisDay Live, 2012).

- **Loss of investors' confidence**

Earnings management leads to loss in confidence by investors of firms that have had cases of earnings manipulation. The loss in investors' confidence is usually followed by decline in share prices of affected companies. Cadbury Nigeria Plc's share value dropped by 5 percent on the Nigerian stock exchange (NSE) following the announcement of material overstatement in their financial accounts (ThisDay Live, 2012). The loss of investors' confidence is not limited to the affected companies, but also to the reputable auditors concerned. The breach of professional

negligence by Akintola William & Deloitte (Chartered Accountants) for their failure to uncover the material overstatement in Cadbury's financial accounts over four successive financial years resulted in massive loss to shareholders. As a result, aggrieved shareholders filed a law suit against Akintola William & Deloitte due to their disappointment in the fraud case of Cadbury Nigeria Plc.

- **Regulatory penalty/suspension**

Regulators are always worried over areas of misrepresentation of accounting facts and figures, inadequate disclosure, and non-compliance of corporate governance code, regulatory and legal frameworks by firms. Such non-compliance and irregularities attract severe penalty. For example, Cadbury Nigeria Plc was sanctioned by the Security and Exchange Commission (SEC) and asked to pay a fine of ₦100, 000 in the first instance and a penalty of ₦ 5,000 per day from 30 June 2002 to 14 December 2006 due to unethical practices in reporting (The Citizen Online, 2013).

Due to all of the above consequences experienced by one of the largest Nigerian companies, earnings management is becoming a critical issue in the domain of Nigerian corporate governance. Determining the extent of earnings management and characterizing the companies that are heavily exposed to such incidence is therefore important for structuring policy guideline for Nigerian companies. This study will contribute to the business and literature in this direction.

1.1 Motivation of the Study

The situation of Nigerian firms is similar to those in other developing countries where deliberate manipulation and misappropriation of shareholders' funds are rampant. However, the opportunistic behavior of executive managers is observed due to:

- Weak legal and financial reporting frameworks;
- Unbalanced share ownership structure that is the segregation of ownership from control; and
- Corruption, political interference through political appointees in the affairs of the firms and other vested interest.

Eliminating the above challenges will make Nigerian economy a more realistic target for cross border investments that will further increase the development of the Nigerian capital market and economic buoyancy of the nation. However, a strict regulatory procedure and the implementation of the International Financial Reporting Standards (IFRSs) and a well-balanced share ownership structure would help in reducing, if not completely eliminate, earnings management among Nigerian companies. It is therefore critical to know the magnitude of earnings management in major sectors of the country, and understand the effectiveness of existing corporate ownership structure in controlling earnings manipulation. The major objective of this thesis is to examine both issues for policy recommendation.

1.2 Significance of the Study

The research has at least three potential benefits to literature:

- First, by analyzing the magnitude of earnings management for Nigerian firms using discretionary accruals, the study will be able to shed light on how such activities can be curtailed.

- Second, the study will apparently be conducting one of the first in-depth comparative analyses of earnings management in Nigerian context.

- Finally, the findings can add to the efforts to better understand the effectiveness of the ownership structure of the Nigerian corporate entities.

1.3 Research Objectives of the Study

This study aims to contribute to existing literature of earnings management by addressing the following research questions:

*i. **Which model gives the best estimation of the level of discretionary accruals in Nigerian context?***

In existing literature of earnings management, five empirical models including Healy (1985), DeAngelo (1986), Jones (1991), Dechow et al. (1995) and Kothari et al. (2005) are widely used to estimate the level of corporate earnings manipulation. This study will recommend a specific model out of the above five models that best explains the level of earnings management for Nigerian publicly listed companies.

*ii. **What is the magnitude of earnings management in Nigeria?***

Among the published earnings management literature in Nigeria till date, there have not been studies in great details that have estimated the level of earnings management in Nigeria.

The literature has mainly limited its studies to corporate governance, the effect of institutional investors on firms' earnings and board composition. To cover this gap in literature, the study will estimate the level of earnings management of companies listed on the Nigerian Stock Exchange (NSE). To address this research question, the study will also determine sector-specific magnitude of earnings management in Nigeria.

iii. What are the characteristics of Nigerian firms that are potential candidates of earnings management?

Weak legal and regulatory frameworks inherent in the Nigerian business environment as well as inappropriate governance structures create potential avenues for earnings management. Addressing this question will help to distinguish some credible firms which have high chance of earnings manipulation. Identifying these firms will allow their stakeholders to initiate appropriate preventive measures in advance. The study will also examine whether existing ownership structure allows Nigerian companies to reduce the level of earnings management.

This study is organized as follows: Chapter II will discuss prior literature and develop hypotheses for empirical investigation related to earnings management. Chapter III discusses data and methodology used in the study. In Chapter IV, we will discuss empirical results and explain some of our findings. Concluding remarks and policy recommendation about earnings management for Nigerian companies will be provided in Chapter V.

Chapter Two: Literature Review and Hypothesis Development

This chapter reviews related literature on earnings management and develop the hypotheses for empirical investigation of Nigerian companies. The chapter is organized as follows: Section 2.1 briefly reviews other definitions and presents an overview of earnings management; Section 2.2 outlines related literature on agency theory and earnings management; and Section 2.3 summarizes the results of empirical investigation related to earnings management.

2.1 Overview of Earnings Management

In addition to the widely accepted definition of earnings management by Healy et al. (1999), more social science researchers provide further description of earnings management. For example, Ronen and Yaari (2008) summarize and group previous definitions of earnings management into three distinctive categories of: (a) white earnings management, (b) gray earnings management, and (c) black earnings management. They suggest that:

> **White earnings management** is taking the advantage of the flexibility in the choice of accounting treatment to signal the manager's information on future cashflows. Meanwhile, the **Gray earnings management** is choosing an accounting treatment that is either opportunistic (maximizing the utility of management only) or economically efficient, and **Black** is the practice of using tricks to misrepresent or reduce transparency of the financial reports (Ronen and Yaari, 2008, p.25).

The authors differentiate that the **black** categorization of earnings management is fraud and outright misrepresentation of financial information. At the same time, **gray** earnings

management simply means the manipulation of financial reports within the legal boundaries which could either be value maximization or opportunistic in nature. While the management of earnings that further add to firms credibility and accountability of financial reports is categorized as **white**.

Another definition by Beneish suggests that "earnings manipulation is an instance where management violates the Generally Accepted Accounting Principles (GAAP) in order to beneficially represent the firm's financial performance" (Beneish, 1999, p.3). Meanwhile, other literature has documented two possible techniques used by the executive management of firms in accomplishing earnings management. The techniques are the accrual accounting method and the real activities manipulation. These two techniques are the immoral ways of managing the reported earnings of firms.

Accrual is an accounting method that recognizes economic events when they take place, regardless of when cash is exchanged (Investopedia, 2014). According to Healy (1985), accruals modify the timing of the reported earnings of firms. Accordingly, the author further asserts that non-discretionary accruals (NDA) and discretionary accruals (DA) are the two ways of understanding earnings management as accruals management. Non-discretionary accruals are accounting adjustments to firms' cash flows as dictated by accounting standard setting bodies. Discretionary accruals are adjustments to cash flows chosen from the opportunity set of generally accepted accounting procedures as stipulated by the standard setting bodies. For instance, "the depreciation method, bad debts provisioning, loan loss reserves and the allocation of fixed factory overhead cost between cost of goods sold and inventories are the specific accruals that have been employed in accomplishing earnings management" (Healy, 1985, p.89).

Likewise, Roychowdhury (2006) states that the manipulation of real (operational) activities affects firms' cash flows and accruals in some cases, and thus defines this kind of manipulation accordingly as: "a management action that deviate from normal business practices, undertaken with the primary objective of meeting certain earnings threshold" (Roychowdhury, 2006, p.337). Consequently, Roychowdhury (2006) documents certain examples of real activities manipulation methods that managers extensively engage in to meet targets. For instance, "price discounts to temporarily increase sales, engaging in over production to lower cost of goods sold (COGS), delay in recording research and development (R&D) maintenance expenditure, alterations in shipment schedules and aggressive reduction of discretionary expenditures to improve margins" (Roychowdhury, 2006, p.337). Finally, the author opine that the act of real activities manipulation thus assist managers to meet their earnings target, but do not certainly add to the value of the firm. Table 2.1 shows the summary of some past global corporate scandals that were connected to accruals or real activities manipulation.

Table 2.1: Past Corporate Scandals Connected to Earnings Management

Company	EM	Public Announcement Date	Allegations
Adelphia Communications	AM	April 2002	The company overstated financial results by inflating capital expenses and hide debt. In addition, the founding family collected $3.1 billion in off-balance-sheet loans in the company's name.
AOL Time Warner	RA	July 2002	As AOL's purchase of Time Warner loomed, AOL inflated revenue by booking barter deals and ads it sold on behalf of companies as revenue to keep its growth rate up in order to seal the merger deal. The company also boosted revenue via "round-trip" deals with advertisers and suppliers.
Bristol-Myers Squibb	RA	July 2002	The company inflated its revenue by $1.5 billion in 2001 by "channel stuffing," that is forcing wholesalers to accept more inventory than they can sell to get it off the manufacturer's books
Enron	AM	October 2001	Enron boosted profits and hide debts totaling over $1 billion by improperly using off-balance-sheet partnerships; manipulated the Texas power market; bribed foreign governments to win contracts abroad and manipulated California energy market
Halliburton	AM	May 2002	Halliburton improperly recognized revenue of $100 million in annual construction cost overrun in their financial statements before customers agreed to pay for them.
Homestore.com	RA	January 2002	The company inflated revenue by booking barter transactions as revenue.
Kmart	AM/RA	January 2002	Anonymous letters from people claiming to be Kmart employees alleged that the company's accounting practices intended to mislead investors about its financial health.
Mirant	RA	July 2002	The company said it may have overstated various assets and liabilities. An internal review revealed errors that may have inflated revenue by $1.1 billion.
Nicor Energy	RA	July 2002	Independent audit investigation uncovered accounting problems that increased revenue and underestimated expenses.
Tyco	RA	May 2002	Ex-CEO Tyco was indicted for tax evasion. The Securities and Exchange Commission (SEC) investigated mismanagement of company funds, related-party transactions and improper merger accounting practices.
Merck	RA	July 2002	Merck recorded fictitious revenue of $12.4 billion in consumer-to-pharmacy "co-payments". As a result, Merck withdrew the registered initial public offer (IPO) application filed with SEC which was expected to raise $1 billion.

Source: Forbes (2002) - The Corporate Scandal Sheet.

EM – Earnings management. RA – Real activities manipulation. AM – Accruals manipulation.

2.2 Related Research

Previous literature mainly covers four areas namely: (i) Agency conflict, (ii) ownership structure, (iii) restatement of financial statements and (iv) quality of financial statements to explain earnings management. The following discussion includes some of the major findings related to these four core areas.

2.2.1 Agency Conflict

The analytical framework of earnings management studies is derived from Jensen and Meckling (1976) when the theory of the firm was proposed. The authors state that the relationship between the executive managers and the shareholders is an agent and principal relationship. Jensen and Meckling (1976) describe an agency relationship as a contract under which the principal (business owner) engages the agent (manager) to perform some services on its behalf. "Due to the separation of business ownership from control, the principal delegate some decision making authorities to the agent in order to achieve the primary objective of the firm, which is the maximization of shareholders wealth" (Jensen and Meckling, 1976, p. 5).

However, the wealth-maximization objective of the firm conflicts with the interest of the managers (profit maximization) that spurs earnings to be managed. In order to control the activities of the managers towards optimal decision making that actualizes the value maximization objective of the firm, agency costs surface. These costs are:

(1) Monitoring Costs: These are expenditures paid by the principal to measure, observe and control the agent's behaviour. They may include the costs of audits, writing executive compensation contracts and ultimately the cost of firing managers;

(2) Bond Cost: is the cost relating to setting up structures that will see managers act in the shareholders' best interest, or compensate them (shareholders) accordingly if managers do not;

(3) Residual Loss: arise because the cost of fully enforcing the principal-agent contracts would far outweigh the benefits derived from it (Jensen and Meckling, 1976, 5-6).

In spite of the agency costs, earnings management still persists through various forms of share ownership as detailed below.

2.2.2 Earnings Management and Ownership Structure

Ownership structure is an internal control system exercised over a firm management team (Gonzalez and Garcia-Meca, 2013). Apart from other firm level factors which influence earnings management, firm's board formation and composition structure could also provide an opportunistic platform for managers to engage in behaviors that are self-serving. Well formulated ownership structures give a monitoring power to the activities of the corporate board. In addition, governance literature has documented earnings manipulation as a result of ownership structure. Specifically, Wang (2006) find relationships between ownership structure and discretionary accruals. Meanwhile, some common ownership structures operating in various firms and their effect on earnings management are highlighted below:

2.2.2.1 Family Ownership

There are two main arguments in the literature related to family ownership. Firstly, family ownership is related to the concentration of ownership in the hands of wealthy family members. Normally, such ownership structure is entrusted with a life time reputation built from

generation to generation. As an illustration, Wang (2006), and Ali et al. (2007) believe family ownership raises concerns about good reputation and therefore discourages earnings manipulation. This means that family firms act in ways that maximize the wealth of firm in the long run rather than managing earnings for short term benefit.

Secondly, Rabelo and Coutinho (2001) and Bona, Perez and Santana (2008) argue that high family concentration exerts a decisive influence on the control of firms. Part of this influence includes non-voting rights which are issued to the owners. "Such voting rights implicitly give greater incentives for the controlling shareholders (families) to obtain private benefits which result in potential increases in earnings management" (Gonzalez et al. 2013, p422).

2.2.2.2 Managerial Ownership

Jensen and Meckling (1976) and Healy (1985), amongst other previous studies on agency theory, emphasize that a lack of managers' equity ownership in the firms they manage might ignite self-interest behaviour in ways that are far from maximizing firm values. Conversely, managerial ownership allows the alignment of managers' personal self-interest objectives with the wealth maximization objective of the firm. However, Isenmila and Afensimi (2012) are of the view that high managerial ownership encourages managerial discretionary behavior. In addition, Hsu and Koh (2005) document a positive association between income-decreasing discretionary accruals and managerial ownership. In a study of South American firms, Gonzalez et al. (2013) document a non-linear relationship between internal ownership and discretionary accruals. The non-linear relationship suggests that managerial ownership limits discretionary behaviour when their share ownership is not very high. In the contrast, Machuga and Teitel

(2009) point out that firms' with less internal (managerial) ownership tend to show a greater earnings quality (less manipulative practices by managers) compared to firms with no managerial ownership.

2.2.2.3 Institutional Ownership

Institutional investors are sophisticated investors who control managerial discretion (Ferreira and Matos, 2008). Koh (2003) believes that there are two opposing views of institutional ownership that affects managers' financial reporting discretion. The author affirms that the activities of short-term oriented (passive) institutional shareholding encourage managers' irrational behaviour. Short-term oriented investors exhibit a strong desire for short-term (current) earnings which render a misleading economic performance of the firm (Koh, 2003). On the other hand, active involvement of long-term oriented institutional shareholders limits managerial incentives to adopt aggressive earnings management and opportunistic behaviour in general (Koh, 2003). Meanwhile, Gonzalez et al. (2013) find a negative relationship between institutional ownership and discretionary accruals. This supports a notion that higher institutional ownership discourages earnings management and has a positive impact on corporate behaviour.

2.2.2.4 External Block Ownership

The external block ownership structure mostly comprise of individual shareholders (Isenmila and Elijah, 2012). The individual shareholding can either be held by small block-holders who own a small fraction of the share ownership and cannot assert control on the managers, or large block-holders, who have a strong desire to actively monitor the performance of the managers of firms. Still, Dechow et al. (1996) affirm that large block-holders usually act strategically in a way that assert pressure on the managers to report a certain level of favorable

financial performance on the one hand, and a threat to take over the management for poor performance on the other hand. The existence of large block-holders therefore may encourage managers to engage in income-increasing earnings management. However, Isenmila et al. (2012) find a positive and significant relationship between external block ownership and earnings management.

From the above background, this study is of the view that both internal and external share ownership affects the level of discretionary behaviour of managers in Nigerian firms and expects that:

H_1: There is a significant impact of Corporate Ownership Structure on earnings management.

2.2.3 Quality of Financial Reporting Perspective

Verleun et al. (2011) believe there is no specific definition as to what constitutes accounting quality. However, Barth, Landsman, and Lang (2008) state that the financial statements that is more value relevant usually reflect losses on a timelier basis as being of higher accounting quality. Meanwhile, Ashbaugh and Pincus, (2001) are of the view that the quality of financial statements increases when managers' opportunistic discretion in determining financial accounting numbers are limited.

However, the introduction and application of common regulations like the International Financial Reporting Standard (IFRS) by the International Accounting Standard Board (IASB) and the Sarbanes Oxley Act are aimed at increasing accounting quality that better reflect the true economic position of firms. Many countries including Nigeria have adopted these regulations. In

contrast, Barth et al. (2008) indicate that the inherent flexibility in principle-based standards (IASs/IFRSs) could provide opportunities for firms to manage earnings. The disadvantage of this is that it can decrease accounting quality. In addition, the effect of the features in the financial reporting system (other than the standards themselves) could eliminate any improvement in accounting quality arising from adopting IAS/IFRS.

In order to test this hypothesis, the study need a measure of the quality of financial reporting which will serve as the independent variable in the regression model. From previous studies it is clear that financial statement quality has many attributes. Financial reporting quality can be measured in many different ways and each proxy has its own qualities and limitations. Examples of such proxy is the level of earnings' management (Leuz et al. 2003) and the timeliness in recognizing economic income in reported earnings (Ball, Robin and Wu, 2003). However, in this study, the determinant of the financial reporting quality for Nigerian firms is the aggregate score of the discretionary accrual values and as a result, this study predicts that:

H_2: The higher/lower the level of discretionary accruals the lower/higher the quality of financial reporting of firms listed on the Nigerian Stock Exchange.

2.2.4 Financial Accounting Restatement Perspective

Bardos (2011) believe that restatement corrects past errors in financial accounts. Moreover, restatement could be seen as improving the quality of financial reporting. Consequently, accounting restatements have a negative impact on the credibility of the board and management of the firm. In turn, doubting the integrity of financial reports could have negative returns on stock prices (Palmrose, Richardson and Scholz, 2004). Information on accounting

restatement is usually perceived as "negative" depending on the materiality of adjustments required. Prior research on accounting restatements has documented diverse features and consequences such restatements could have on the wealth maximization objective of the firm. For instance, Hribar and Jenkins (2004) and Palmrose et al. (2004) document an immediate increase in the cost of equity capital and a significant loss in market value following accounting restatement announcements.

Finally, Chen, Cheng, and Lo (2012) elaborate on the impact of accounting restatement on firms' external financing choices. The authors state that the credibility of financial reporting is lower after restatement announcements due to perceived information asymmetry. Consequently, firms that have had material financial accounting restatements in their financial reports experience a proportional increase in external debt by 11 percent because the restatements send a negative signal to the equity market (Chen et al. 2012). Accordingly, these results are consistent with material restatements leading to more serious doubts among investors regarding the quality of financial reporting. On these instances, this study justifies the inclusion of debt financing (leverage) in the model for analysis and predicts that:

H_3: Debt financing is positively associated with the likelihood of financial accounting restatements.

2.3 Earnings Management and Firm Characteristics

2.3.1 Firm Size

Kim, Liu and Rhee (2003) believe there are three opposing views on the role of firm size in earnings management as reported by Burgstahler et al. (1997). Firstly, Kim et al. (2003) are of the view that the larger the firm size, the lower the chance of earnings management and vice versa. The authors suggest that large firms have more sophisticated internal control mechanism, and thus it is difficult for these firms to manipulate reported earnings. This is because more structured internal control mechanisms include an audit committee, reliable financial information disclosure, and a dynamic board structure that is more independent from the management. This type of internal control is more visible in large firms compared to small firms. In this instance, large firms are more likely to have a well-structured and also maintain highly effective internal control systems that reduce the likelihood of earnings management in comparison to small firms.

Secondly, large firms have already evolved into a brand built over time to maintain their status as "big firms". Meanwhile, small firms are still evolving with increased propensity to manipulate their reported earnings over time. With this notion, large firms are audited by auditors from one of the big six auditing firms that have more reputation and experience to prevent financial misrepresentation. In understanding the economics of audit choices, Francis, Maydew and Sparks (1999) document that big six accounting firms are viewed as quality differentiated auditors due to increased credibility given to reported earnings and their ability to constrain aggressive and potentially opportunistic reporting. Francis et al. (1999) affirm that firms with international (big six) auditors have the smallest discretionary accruals (13.7 percent). This is followed by firms with second-tier national auditors (17.2 percent), and then firm with third-tier local auditors (22.1 percent). In addition, the authors' final results show a smaller

discretionary accruals value of 19.2 percent for big six audited firms compared to 29.3 percent for firms with non-big six audited firms. Nelson, Elliot and Tarpley (2002) document auditor's significance in reducing earnings management. The authors find that auditors are more likely to waive earnings management attempts that they consider immaterial or are attempted by large clients.

Thirdly, large firms take reputation costs into perspective when engaging in earnings management compared to small firms (Kim et al. 2003). The authors believe that large firms have strong understanding of their market environment, more established corporate social responsibilities, including credibility of financial information compared to small firms. Therefore, concern about reputation may prevent large firms from manipulating earnings compared to small firms. Also, the cost of engaging in earnings management will be higher for large firms than small firms. Finally, large firms may be less likely to manage earnings relative to smaller counterparts because they are followed by more financial analysts (Kim et al. 2003).

There are however contrasting views that large firms are more likely to manage reported earnings than their small firm counterparts. Firstly, Barton and Simko (2002) argue that large firms face more pressure to surpass analysts' earnings expectations/forecasts. The pressure is due to the fact that investors are quick to sell off their shares of firms that fail to meet or surpass analysts' earnings expectations (Skinner and Sloan, 2001). Secondly, the reputation and size of firms give certain bargaining power. Kim et al. (2003) infer that large firms have greater bargaining power with auditors. This means that the larger their sizes, the more bargaining power they have while negotiating with auditors and this may result in high chance of earnings management.

Finally, Kim et al. (2003) indicate that because large firms have stronger management power and more dynamism, management may override the internal control system to manipulate earnings to exceed earnings thresholds. In addition, large firms may choose to manage the reported earnings to decrease political costs (Kim et al. 2003). In all these cases, the incentives and abilities to manage earnings may vary among firms of different sizes. However, these competing views and evidence raised a question on the relation of earnings management to firm size with respect to Nigerian firms listed on the nation's stock exchange. Meanwhile, from the above argument, some of the sampled firms in this study have international affiliation with high bargaining power and large volume of stocks being traded on the Nigerian Stock Exchange (NSE). These firms are not only dominant in Nigeria but also across the whole of West African sub region. Hence the study hypothesizes that:

H_4: Firm size is negatively related to earnings management.

2.3.2 Debt Covenants (Leverage)

Firms enter into debt covenants (borrowing cash) to finance their operations (Doron and Penman 2003). DeFond (1994) argues that debt covenants are intended to confine managers from engaging in investment and financing decisions that reduce the value of debt holders claims. Specifically, debt covenants may restrict the payment of dividends at certain income levels (Nelson and George 2013). In addition, the literature link debt and accounting policy choice together because debt covenants are usually based on reported accounting numbers and a violation of the debt covenants leads to extra costs on the company (Nelson et al. 2013). Watts and Zimmerman (1986) note that firms that are near violation of the debt covenants make accounting choices that lower the likelihood of default. However, Sweeney (1994) test the

hypothesis that firms that default on their debt obligations change to more liberal accounting procedures in the five years before default (more frequently than comparable firms that do not default). In addition, Sweeney (1994) provides a direct test of the proposition that managers change accounting procedures in response to tightening debt covenants constraints. The author also finds that managers of firms that are approaching violation of accounting-based restrictions are more likely to make income-increasing discretionary accounting changes. Furthermore, such firms also adopt income-increasing accounting changes earlier than control firms-matched on industry, firm size, and time period.

Consequently, managers choose income-increasing accounting policies to reduce the probability of debt covenants violation and to improve the firm's bargaining power during debt negotiation (Norman and Kamran, 2005). This is an indication that the direction of earnings management relating to leverage can either be upward or downward. For instance, DeFond and Jiambalvo (1994) detect income-increasing discretionary accruals in financially distressed firms to avoid debt violation. Furthermore, DeAngelo and DeAngelo (1994) find income-decreasing abnormal accruals to obtain better terms in contract renegotiation. In estimating the impact of debt covenants, related literature has frequently used leverage as a proxy for the existence of a relationship with earnings management (DeFond et al. 1994). In case of Nigerian firms, due to incentives plan mostly dividend covenant to shareholders, firms are more willing to borrow in order to fulfil this purpose. In this regard, the study is of the opinion that:

H_5: A positive relationship exists between debt covenant and earnings management.

2.3.3 Growth in Earnings

Persistent growth in earnings could be an indication of extreme financial performance. It is observed that CEOs of firms are focused on maintaining steadily increasing earnings. For example, Burgstahler and Dichev (1997) state that managers try to maintain a pattern of increasing earnings. However, Barth, Elliot and Finn (1995) report that firms with a consistent pattern of earnings growth gain higher premiums on the price-to-earnings (P/E) ratio, after controlling for earnings levels. Additionally, the authors find that the (P/E) ratio is massively higher for a longer series of earnings increases and substantially reduced when the established incremental pattern of earnings is finally broken. DeAngelo et al. (1996) documents that firm breaking a pattern of consistent earnings growth experience an average of 14 percent negative abnormal stock return in the year the pattern is broken. Meanwhile, it is expected that firms with rapid growth in earnings experience larger accruals (McNichols, 2000). For instance, in relation between initial public offering (IPO) underpricing and post-IPO growth rates of accounting performance variables, Zheng and Stangeland (2007) find that underpricing is positively related to growth in sales and operating income before interest, tax, depreciation and amortization expenses (EBITDA) in the five years succeeding an IPO.

In other related literature, Balachandran and Mohanram (2009) highlight different ways in which firms can display growth in earnings. These include: First, by making additional investments in projects that deliver positive earnings in the future (investment-driven growth). In this regard, earnings can also be inflated by improving operating efficiencies, reducing costs and using pricing power to internalize economic rents (internally generated growth). Second, generating growth internally by increasing profitability of existing assets is always valuable, while growth from investment may or may not create value, depending on the rate of return on

incremental investment. Further, the authors find both internally generated growth and investment-driven growth to be positively associated with CEO compensation (Balachandran et al. 2009); hence, a possible earnings management can be done due to managers' own personal benefit.

McNichols (2000) documents a significant positive correlation between discretionary and non-discretionary estimates of accruals and growth in earnings. These findings indicate that growth firms are likely to exhibit positive discretionary estimates, and that a comparison of their estimated discretionary accruals to other firms with lower growth can lead to a conclusion of greater earnings management. From this affirmation, the study states this hypothesis:

H_6: Growth in earnings is positively related to discretionary accruals (earnings management).

2.3.4 Return on Company's Assets (ROA) – Firms Economic Performance

Managers are motivated by incentives to prove their level of efficiency in using firm's assets to maximize shareholders' wealth (Kasznik, 1999). For Instance, Myers and Skinner (2007) find that firms with positive prior year's earnings influence managers' susceptibility to inflate future year's earnings to keep pace with prior years' trend, in addition to meeting analysts' future earnings forecast. Kothari, Leone and Wasley (2005) argue that the discretionary accruals behaviors of firms are influenced by three different kinds of events. First, discretionary accruals are influenced by planned corporate events of interest. Second, discretionary accruals are induced by other firm-specific events. And third, performance motivated discretionary accruals such as improving ROA. Kothari et al. (2005) also opine that firms with high ROA will

have more of other firm-specific events and performance motivated discretionary accruals than others. Following the above argument, Shih (2013) refers to the two kinds of abnormal accruals collectively as performance-related abnormal accruals. However, since returns on assets (ROA) is capable of capturing the effect of firms' operating performance (Zhijian, 2012) ROA is selected in this study as opposed to the use of firms' share prices to denote firm performance. Following the above arguments, the study therefore hypothesizes that:

H_7: Return on Assets has a positive relationship with earnings management.

Chapter Three: Data and Methodology

This chapter discusses empirical models, measurement of key variables and analysis. The chapter is divided into two sections. Section 3.1 covers the methodology for calculating discretionary and non-discretionary accruals, and section 3.2 explains database for the analysis.

3.1 Methodology

In consistent with Dechow et al. (1995) and other prior literatures of earnings management, total accruals (TACC) scaled by lagged total assets are computed using equations 3.1.1 below:

$$TACC_t = \frac{(\Delta CA_t - \Delta CL_t - \Delta Cash_t + \Delta STD_t - Dep_t)}{A_{t-1}} \quad (3.1.1)$$

Where:

$TACC_t$ = Total accruals.

ΔCA_t = Change in current assets.

ΔCL_t = Change in current liabilities.

$\Delta Cash_t$ = Change in cash and cash equivalents.

ΔSTD_t = Change in debt included in current liabilities.

Dep_t = Depreciation and amortization expense.

A_{t-1} = Total assets in year t-1.

However, empirical literatures have applied different non-discretionary accruals models to determine the discretionary accruals used as proxy for estimating earnings management hypothesis. Hence, non-discretionary accruals are calculated using the following models:

i. The Healy Model

This is the earliest nondiscretionary accruals model that is used to measure the level of earnings management. In the model, Healy (1985) uses total accruals (discretionary and non-discretionary)[1] as a proxy to predict systematic earnings management and finds that earnings management occurs both in the event period[2] when earnings management is believed to have been carried out and also in the estimation period[3] when no earnings management has occurred. The author assumed that the estimated nondiscretionary accruals as represented below are constant overtime.

$$NDA_t = \frac{\Sigma rTA_t}{T} \qquad (3.1.2)$$

Where:

NDA_t = Estimated non-discretionary accruals.

TA_t = Total accruals scaled by lagged total assets.

Γ = A year subscript for a year in the event period.

T= A year subscript for years included in the estimation period.

ii. The DeAngelo Model

DeAngelo (1986) model of nondiscretionary accruals assume total accruals as non-discretionary accruals. In this case, the lagged total accruals are scaled by total assets to calculate non-discretionary accruals as shown below:

$$\text{Non-discretionary Accruals}_{(t)} = \frac{\text{Total Accrual}_{(t-1)}}{\text{Total Assets}_t} \qquad (3.1.3)$$

[1] Discretionary accruals are adjustments to cash flows chosen from opportunity set of generally accepted accounting procedures as stipulated by the standard setting bodies while Non-discretionary accruals are accounting adjustments to firm's cash flows as dictated by accounting standard setting bodies (Healy, 1985, p.89).

[2] The period in which earnings management took place (Healy, 1985).

[3] Estimation period is the period in which earnings management did not occur (Healy, 1985).

iii. The Jones Model

Jones (1991) proposed an expectations model for non-discretionary total accruals, which controls for change in economic circumstances of firms such as revenue, gross property, plant and equipment and total assets in the event year as stated in equation 3.1.4.

$$\mathbf{NDA_t = \alpha_1 (1 / A_{t-1}) + \alpha_2 (\Delta REV_t / A_{t-1}) + \alpha_3 (PPE_t / A_{t-1})} \qquad \mathbf{(3.1.4)}$$

Where:

NDA_t = Estimated non-discretionary accruals.

A_{t-1} = Total assets in year t-1.

ΔREV_t = Change in net revenue of firms in year t less net revenue in year t-1scaled by total assets in year t-1.

PPE_t = Gross property, plant and equipment of firms in year t.

The model incorporates firms' revenue (REV), and property, plant and equipment (PPE) scaled by total assets (TA) on the assumption that managerial discretion is not exercisable on sales either in the estimation period or the event period (Dechow, Sloan & Sweeney, 1995).

iv. The Modified Jones Model

Dechow, Sloan and Sweeney (1995) proposed an identical modification to the original Jones (1991) model. Dechow et al. (1995) assumed that the changes in receivables (ΔREC) in the event period is as a result of earnings manipulation. Discretions are easily exercisable on cash receivables than it is on cash sales and thus sales should be netted off fictitious revenue. In this regard, a modified version of the earlier Jones model is proposed in equation 3.1.5.

$$\mathbf{NDA_t = \alpha_1 (1 / A_{t-1}) + \alpha_2 (\Delta REV_t - \Delta REC_t) / A_{t-1} + \alpha_3 (PPE_t / A_{t-1})} \qquad \mathbf{(3.1.5)}$$

Where:

A_{t-1}= Lagged total assets i.e. total assets in year t-1.

ΔREV_t = Revenue in year t less revenue in year t-1 scaled by total asset in year t-1.

ΔREC_t = Receivable in year t less receivable in year t-1 scaled by total asset in year t-1.

PPE_t = Gross property plant and equipment in year t scaled by total assets in year t-1.

α_1, α_2 and α_3 = OLS estimates of corresponding variables that are obtained using the standard Jones (1991) model.

Further, Dechow et al. (1995) believe that the modified Jones model is more successful in explaining the variations in accruals because of the model's smaller standard error.

v. The Kothari and Wasley Model

A "performance-matched" approach of deriving discretionary accruals model was proposed by Kothari and Wasley in 2005. This approach provides additional controls for what is considered "normal" earnings management. Performances are matched on the basis of firms current and past year's return on assets (ROA_t and ROA_{t-1}). Kothari et al. (2005) state that test of discretionary accruals using performance-matched approach is better specified than using a linear regression approach. The authors performance matched model is similar to the Jones and modified Jones model except that it is augmented to include (ROA_t or ROA_{t-1}) as shown in equation 3.1.6.

$$\mathbf{TA_t = \alpha_1 (1 / A_{t-1}) + \alpha_2 (\Delta SALES_t) + \alpha_3 (PPE_t) + \alpha_4 ROA_t (or\ ROA_{t-1}) + v_t} \qquad \mathbf{(3.1.6)}$$

Where:

TA_t = Total accruals in year t of the firms.

A_{t-1} = Total assets in year t-1 of the firms.

$\Delta SALES_t$ = Change in sales in year t of the firms.

PPE_t = Gross property, plant, and equipment in year t of the firms.

ROA_t (or ROA_{t-1}) = Return on assets in time t or t-1 of the firms.

V_t = The residual.

Kothari et al. (2005) find that the augmentation of the modified Jones model with the performance-matched technique yielded a small chance of misspecification error compared to the traditional modified Jones model that suffer from "severe-misspecification" error.

However, the non-discretionary accruals calculated from the above models were subtracted from the total accruals calculated in equation 3.1.1 above to obtain the discretionary accruals for all firms (DA = TACC – NDA). In addition, after the calculation of the discretionary accruals, an equation that shows the magnitude of earnings management of 62 firms listed on the Nigerian Stock Exchange (NSE) was estimated in Eviews 8 using the model stated below in equation 3.1.7:

$$\mathbf{DA_{it} = \beta_0 + \beta_1 GROWTH_{it} + \beta_2 LEV_{it} + \beta_3 FIRM\ SIZE_{it} + \beta_4 ROA_{it} + \beta_5 INST_{it} + \beta_6 CEO_{it}}$$
$$\mathbf{+ \beta_7 CHAIR_{it} + \beta_8 INDV_{it} + \beta_9 D_2 + \beta_{10} D_3 + \varepsilon_{it}} \qquad \mathbf{(3.1.7)}$$

Where:

DA_{it} = Discretionary accruals calculated from the five models.

$GROWTH_{it}$ = Growth in earnings is measured as change in revenue divided by revenue in year t-1 in percentage.

LEV_{it} = Debt ratio, measured as firms total debt divided by total assets in year t.

FIRM $SIZE_{it}$ = Firm size is represented by log of total assets in year t.

ROA_{it} = Earnings before interest and taxes divided by total assets of firms in year t.

$INST_{it}$ = Percentage of institutional ownership of sample firms in year t.

CEO_{it} = Percentage of CEO ownership of sample firms in year t.

$CHAIR_{it}$ = Percentage of chairman ownership of sample firms in year t.

$INDV_{it}$ = Percentage of individual ownership of sample firms in year t.

D_1 (Consumer Goods Industry) = A dummy variable that equals 1 for firms that belong to consumer staples and discretionary subsector of the Nigerian economy and 0 if otherwise. This is a base dummy omitted from the model to avoid the problem of dummy trap.

D_2 (Manufacturing Industry) = A dummy variable that equals 1 for firms that belong to industrial, material and energy subsector of the Nigerian economy and 0 if otherwise.

D_3 (Service Industry) = A dummy variable that equals 1 for firms that belong to financial services, healthcare and telecommunications subsector of the Nigerian economy and 0 if otherwise.

β_1 ..... β_{10} = Estimated model parameters.

3.2 Database

The focus of this investigation is based on all publicly listed firms on Nigerian Stock Exchange (NSE) whose data are available for all the variables used in the study for the sample period. Data are collected from both CAPITALIQ and CRSP/COMPUSTAT (The Centre for

Research in Security Prices) database published by Standard and Poor (S&P). All financial information required for the calculation of the dependent variable (discretionary accruals) value using all the models above was obtained for 10 years period (2003–2012). The panel dataset contains 62 firms representing 32 percent of total listed firms on the Nigerian Stock Exchange (NSE) for the period of 2003-2012 in local currency, which is the Nigerian naira (₦). The balance dataset therefore includes 620 firm-year observations.

Missing data is a common issue for any emerging country like Nigeria and that can have a significant effect on the conclusions drawn from existing dataset. However, missing data reduces the generalization of the sample dataset and therefore distort inferences about the population. Rather than excluding firms with missing data in any one year, interpolation using trends is used to generate such missing data for any of the 62 firms for the observed period of 2003-2012, thus given 620 firm-year observations.

Chapter Four: Empirical Results and Analysis

This chapter discusses the findings from our estimated models of earnings management using publicly listed firms on the Nigerian Stock Exchange (NSE) for the period 2003-2012. The chapter is organized as follows: Section 4.1 discusses the descriptive statistics of variables used in the regression analysis. Section 4.2 provides correlation analysis among the independent variables. Section 4.3 discusses the regression results from five discretionary accruals models to address the research questions and hypotheses.

4.1 Variables Descriptive Statistics

Table 4.1 reports the values of the mean and standard deviation of individual key variables that are used in the regression models. Since the study uses five different discretionary accruals models to estimate the level of earnings management among Nigerian firms, the table includes summary statistics for each of them including firm characteristics and ownership variables included in the models.

There is, however, significant variation in size across the sample as represented by the minimum and maximum values and standard deviations. The study finds that the average firm size in the analysis as represented by FIRM SIZE range from 6.28 to 13.15 during the observed period, and it implies that these are some large companies in the cohort of companies. In fact, the average total assets of the observed firms is ₦57.97 billion, ranging in ₦537 million and ₦515 billion. The average growth in future earnings among the Nigerian firms ranges from -0.43 percent to the highest growth rate of 229 percent. This financial performance of the firms shows that some firms are performing well and growing faster. Findings also show that management of the firms uses the firms' assets efficiently as mean ROA is 6.93 percent, ranging from -13

percent to 19 percent. Furthermore, in the case of leverage (LEV), we find that Nigerian firms are highly levered on the average at 73.83 percent indicating that the firms are more dependent on borrowing to finance their assets. Meanwhile, the data points for firm size, leverage and return on assets tend to be low and close to the mean as indicated by their standard deviation of 2.03, 1.75 and 0.08, respectively.

Additionally, the study documents that the ownership structure across the firms is dominated by individual shareholding as average share ownership is 14.87 percent largest proportion among all other types of ownership. Likewise, Chairman, Institutional and CEO shareholdings across sample firms vary in between 0 and 25 percent, between 2 percent and 28 percent, and between 0 percent and 25 percent, respectively. Importantly, the estimated level of discretionary accruals also differs from model to model. The study finds that the absolute discretionary accruals using the Jones and modified Jones model is, on average 17.74 percent and 18.20 percent, respectively. Further, the standard deviation of Jones (modified Jones) model is 73.37 (79.98), indicating that the models discretionary accruals are highly dispersed and spread out over a large range of values. Likewise, the result states that the mean of absolute discretionary accruals using Healy (1985), DeAngelo (1986) and Kothari et al. (2005) models to be 0.96 percent, 0.97 percent and 5.02 percent, respectively. The data points for Healy (1985), DeAngelo (1986) and Kothari et al. (2005) models are less dispersed from their respective mean with standard deviation of 4.52, 4.59 and 15.49, respectively.

Table 4.1: Variables Descriptive Statistics

Variables	Discretionary Accruals						Firm Characteristics				
	Mean	Min	Max	S.D	Skewness		Mean	Min	Max	S.D	Skewness
DAJ	-17.74	-337	-0.86	73.37	-4.24	GROWTH	11.19	-0.43	229.23	49.96	4.24
DAMJ	-18.20	-367	0.02	79.98	-4.24	LEV	0.73	-0.21	6.03	1.75	2.62
DAH	0.96	-0.34	20.68	4.52	4.24	FIRM SIZE	8.68	6.28	13.15	2.03	1.08
DADA	0.97	-0.35	21.01	4.59	4.24	ROA	0.06	-0.13	0.19	0.08	-0.55
DAK	-5.02	-72.64	-1.36	15.49	-4.24	TOTAL ASSET	57966	537.93	515063	138138	2.59

Ownership Variables

	Mean	Min	Max	S.D	Skewness
INST	8.68	1.88	28.32	5.89	1.82
CEO	6.05	0.00	25.09	10.90	1.22
CHAIR	10.11	0.00	25.09	10.18	0.60
INDV	14.87	0.07	41.65	15.74	0.92

Note: *DAJ – Jones model discretionary accruals. DAMJ – Modified Jones model discretionary accruals. DAH – Healy model discretionary accruals. DADA – DeAngelo model discretionary accruals. DAK – Kothari et al. model discretionary accruals. GROWTH – Growth in earnings. LEV – Debt to asset ratio. FIRM SIZE – Log of total assets representing firm size. ROA – Return on assets. TOTAL ASSET – Firm's total assets. INST – Institutional ownership. CEO – CEO ownership. CHAIR – Chairman ownership. INDV – Individual ownership.*

4.2 Correlation Coefficient

Table 4.2 shows the correlation coefficient of the variables included in the regression equation. Growth in earnings (GROWTH) is highly correlated with the five discretionary accruals except with discretionary accruals calculated with Kothari et al. (2005) model. In contrast, other independent variables are not highly correlated to DAK in most cases. For instance, while firm's leverage and profitability is positively correlated with DAK at the 10 percent level (0.024 and 0.039, respectively), FIRM SIZE is negatively correlated with DAK at the 5 percent level. This suggests that high bank borrowing and profitability increase earnings management whereas large firms expose to low volume of earnings management in Nigeria.

Furthermore, the firms' total assets (TOTAL ASSETS) are fairly correlated with discretionary accruals. The correlation between these variables is highly significant at 0.01 and 0.05 levels, respectively, but insignificant in the case of DAH and DADA. In general, it repeatedly suggests that large firms with high assets base have low magnitude of discretionary accruals. Likewise, firm size is negatively correlated with discretionary accruals. For instance, the correlation between FIRM SIZE and DAK is -0.474, significant at the 5 percent level. Few independent variables are highly uncorrelated with each other such as TOTAL ASSETS and FIRM SIZE and leverage (LEV) and CEO ownership; though statistically, while return on assets (ROA) and Chairman Shareholding, and ROA and Individual shareholding are significantly correlated.

Table 4.2: Correlation Coefficient Matrix

	DAJ	DAMJ	DAH	DADA	DAK	GROWTH	LEV	FIRM SIZE	ROA	TOTAL ASSET	INST	CEO	CHAIR	INDV
DAJ	1.000													
DAMJ	1.000	1.000												
DAH	-0.999**	-0.999**	1.000											
DADA	-0.999**	-0.999**	1.000	1.000										
DAK	0.999*	0.999*	-0.999**	-0.999**	1.000									
GROWTH	-0.999**	-0.999**	0.999*	0.999*	-0.999	1.000								
LEV	0.027**	0.026**	-0.031*	-0.031*	0.024*	-0.020*	1.000							
FIRM SIZE	-0.473**	-0.474**	0.468	0.468	-0.474**	0.473	-0.023**	1.000						
ROA	0.034*	0.034*	-0.022**	-0.022**	0.039*	-0.033*	-0.230**	-0.407**	1.000					
TOTAL ASSET	-0.568**	-0.568**	0.566	0.566	-0.566**	0.567	-0.062**	0.833	-0.087**	1.000				
INST	0.118	0.118	-0.117**	-0.117**	0.120	-0.119**	-0.229**	-0.316**	0.162	-0.309**	1.000			
CEO	0.122	0.122	-0.125**	-0.125**	0.115	-0.119**	0.594	-0.103**	-0.471**	-0.224**	-0.334**	1.000		
CHAIR	0.227	0.226	-0.234**	-0.234**	0.220	-0.224**	0.488	-0.035**	-0.678**	-0.327**	-0.051**	0.841	1.000	
INDV	0.185	0.185	-0.191**	-0.191**	0.179	-0.183**	0.560	-0.093**	-0.612**	-0.309**	-0.149**	0.944	0.969	1.000

*** Coefficient is significant at the 0.01 level (2 tailed) * Coefficient is significant at the 0.05 level (2 tailed)*

Note: *DAJ - Jones model discretionary accruals. DAMJ - Modified Jones model discretionary accruals. DAH - Healy model discretionary accruals. DADA - DeAngelo model discretionary accruals. DAK- Kothari et al. model discretionary accruals. GROWTH - Growth in earnings. LEV - Debt to asset ratio. FIRM SIZE - Log of total asset representing firm size. ROA - Return on assets. TOTAL ASSET - Firms net worth. INST - Institutional ownership. CEO - CEO ownership. CHAIR - Chairman ownership. INDV - Individual ownership.*

4.3 Estimated Regression Results

4.3.1 Results Pertaining to Research Question 1 – The Best Estimation Model of Discretionary Accruals in Nigerian

The classical assumptions must be met in order for ordinary least square (OLS) estimators to be the best available (Studenmund, 2011, p.93). The author describes the classical regression assumptions as a set of fairly basic assumptions required to hold in order for OLS coefficients to be considered the best estimators in regression models. The following classical assumptions have been used in selecting the best regression model out of the five models in this study that best explain earnings management of listed firms in Nigeria:

i. R-squared should be high and at least more than 50 percent.
ii. Overall fitness and significance of the model (p-value of F statistics).
iii. No Serial/Autocorrelation in the residuals.
iv. No Heteroskedasticity in the residuals.
v. Residuals are normally distributed.

The model that fulfills all the above listed features will be recommended as the best earnings management regression model for listed firms in Nigeria. The acceptance of the null hypothesis with significant p-value at 5 percent and 10 percent level, respectively for criteria (ii) to (v) is desirable for the best model decision. From table 4.3, the study finds that the R-square differs from model to model and is not well fitted in most cases. From 2.3 percent under the modified Jones (1995) model, the relative R-squared improves to 16 percent [30.7 percent] in the case of Healy (1985) and DeAngelo (1986) models [Jones, 1991 model]. In addition, in Kothari et al. (2005) model, the estimated R-square is 52.2 percent - the largest among all the other model specifications.

This study tests for the predictive power of the entire model using the F statistic. The overall fitness of the accrual model is significant at 5 percent level, under Jones (1991), modified Jones (1995) and Kothari et al. (2005) model. This shows that the independent variables can jointly influence the level of discretionary accruals among listed firms in Nigeria under these three models as indicated by their p-values respectively. It can be concluded that the Kothari et al. (2005) model does indeed have the best significance of overall fit with p-value of 0.000.

Furthermore, a good regression model should not have error term that is serially correlated with each other in the sample period. Importantly, if a systematic correlation does exist between one error term and another in a time series data, then it will be more difficult for OLS to get accurate estimates of the standard errors of the coefficients (Studenmund, 2011). As a result, the residual diagnostics as shown by the corresponding p-value of the observed R-squared of Breusch Godfrey Serial Correlation LM test indicate that Healy (1985), DeAngelo (1986) and Kothari et al. (2005) estimates of discretionary accruals are significant at the 5 percent level. However, this lead to the acceptance of the null hypothesis of no serial correlation in the residuals of these three models. Acceptance of the null hypothesis is desirable for a good model.

Equally, the error term must have a constant variance over time in a time series data. This implies that the variance of the error term cannot change for each observation or range of observations (Studenmund, 2011). Where the variance of the error term does change, there is heteroskedasticity present in the error term. However, the Breusch-Pagan Godfrey test for heteroskedasticity reveals that only the Kothari et al. (2005) accrual model is significant at 10 percent level and the error term is homoscedastic (constant error term). Moreover, the error term of Jones (1991), modified Jones (1995), Healy (1985) and DeAngelo (1986) accrual models are not constant (heteroscedastic).

Additionally, the error term should be normally distributed (bell-shaped). The Jarque-Bera tests for normal distribution test disclose the model that is symmetrical and normally distributed. Based on the estimated p-values of Jarque-Bera test, residuals are normally distributed in the case of the entire estimated model. However, from the aforementioned results, the study recommends that the best model for the estimation of discretionary accruals in the case of Nigerian firms is based on Kothari et al. (2005), as the estimated statistics are constantly accepting corresponding five hypotheses of the best fit. Therefore, the interpretation of our estimated results will be by Kothari et al. (2005) model.

Table 4.3: Determining the Best Regression Model

	Classical Assumptions				
	I	**II**	**III**	**IV**	**V**
	Jones	**Modified Jones**	**Healy**	**DeAngelo**	**Kothari**
R^2	0.307	0.023	0.016	0.016	0.522
F-stats (p-value)	0.005**	0.030*	0.135	0.135	0.000**
Breusch Godfrey LM test (p-value)	0.151	0.183	0.001**	0.001**	0.001**
Breusch-Pagan Godfrey (p-value)	0.188	0.203	0.162	0.162	0.070*
Jarque-Bera Test (p-value)	0.000**	0.000**	0.000**	0.000**	0.000**

**, * indicate statistical significance at the 5% and 10% level, respectively (two-sided test).

4.3.2 Results Pertaining to Research Question 2 - The Magnitude of Earnings Management in Nigeria

The usual starting point of the measurement of discretionary accruals is total accruals, and then a particular model is used to calculate non-discretionary component of total accruals. By subtracting non-discretionary accruals from total accruals, the magnitude of accruals is determined. In estimating the magnitude of earnings management of Nigerian firms, the study considers five models for generating non-discretionary accruals. The models are general representations of those that have been used in the extant earnings management literature. However, since absolute discretionary accrual is a proxy for earnings management, the study documents that the level of earnings management of Nigerian publicly-listed firms is 5.02 percent. This estimate is based on Kothari et al. (2005) model. The study considers Kothari et al. (2005) estimate since the model specification is identified as the best-fitted model using Nigerian data. Further, authors such as Dechow et al. (1995) document severe-misspecification error as the limitation inherent in the use of discretionary accruals models such as Jones (1991), modified Jones (1995), Healy (1985) and DeAngelo (1986)[4] models as a proxy for estimating earnings management.

Nonetheless, the estimate of earnings management among publicly-listed Nigerian firms is relatively close to earnings management of South African firms at 5.6 percent (Leuz et al. 2002, p.515)[5]. The study also documents that the manufacturing and energy sector in Nigeria has the highest average discretionary accruals of 48.38 percent. This is an indication that earnings management is rampant within the manufacturing industry of the Nigerian economy followed by

[4] Discretionary accruals in other estimated models are as follows: Jones (-17.74%), modified Jones (-18.20%), Healy (0.96) and DeAngelo (0.97%).

[5] Discretionary accruals in other developing nations are as follows: The Philippines (8.8%), Malaysia (14.8%), Pakistan (17.8%), Thailand (18.3%), Indonesia (18.3%) and India (19.1%) [Leuz et al. 2002, p.515].

consumer goods sector with 41.93 percent. In contrast, services sector in Nigeria shows the level of earnings management of 9.67 percent on average, as shown in table 4.4 below. Consequently, it is imperative to note that the larger the absolute value of discretionary accruals, the higher the presence of earnings management and the lower the quality of financial reporting of Nigerian firms and vice versa. According to the result of Kothari et al (2005), it can be concluded that the quality of financial reporting of Nigerian firms is high compared to firms in South Africa and other developing nations (*refer to footnote 5*). Therefore, the result is consistent with the stated hypothesis number 2 that the higher/lower the level of discretionary accruals, the lower/higher the quality of financial reporting of firms listed on the Nigerian Stock Exchange (NSE).

Table 4.4: Nigeria Industry-Wise Earnings Management

Dummy Variables	Industry	Subsector	Number of Observation	Average Discretionary Accruals
D1	Consumer Goods	Consumer staples and Consumer discretionary	620	41.93%
D2	Manufacturing and Energy	Industrial, Material and Oil & Gas	620	48.38%
D3	Services	Healthcare, Financial and Telecommunications	620	9.67%

Note: This table presents the industrial sector-wise average discretionary accruals of 62 Nigerian firms listed on the country's stock exchange from 2003-2012. Average discretionary accruals are multiplied by 100 to get average in percentage. D1 represents dummy variable for firms in Consumer goods industry which comprises of Consumer staples and Consumer discretionary subsector. D2 is a dummy variable for firms within the Manufacturing and Energy industry such as Industrials, Materials and Energy. D3 is a dummy variable for firms in Services industry which includes Healthcare, Financials, and Telecommunications subsector.

4.3.3 Regression Results on Earnings Management Hypotheses

Table 4.5 includes the estimated regression coefficients of the base models. Each of the five discretionary accruals is considered as the dependent variable in individual regressions. For instance, column II reports the regression results that use discretionary accruals derived from the modified Jones model as the dependent variable. The result from table 4.5 suggests that LEV (leverage) is insignificant across all model specifications. This implies that the extent of debt financing does not have any impact on earnings management (financial restatement) in the case of Nigerian firms. This observation is not unexpected given that Norman et al. (2005) observe both positive and negative impact of leverage on discretionary accruals, indicating that the effect of leverage on earnings management could be bi-directional. Nonetheless, though the authors' estimated coefficients are found insignificant, the effect of leverage on discretionary accruals could either be positive (e.g. Healy, 0.038; DeAngelo, 0.039 and Kothari e al., 0.005) or negative (e.g. Jones,-0.087; and Modified Jones,-0.096). Both mixed and insignificant coefficient of LEV does not lend outright support for the positive association between firms debt financing and accounting restatement, and thus reject hypothesis number 3 that leverage is positively associated with the likelihood of financial accounting restatements.

In the models, FIRM SIZE is significant and negative across the five model specification at the 1 percent level. The regression coefficients are -1.275 and -1.354 for Jones (1991) and modified Jones (1995) model respectively, -0.338 and -0.344 for Healy (1985) and DeAngelo (1986) model, respectively, and -0.636 for Kothari et al. (2005) model. The estimated results are consistent with the hypothesis number 4 that firm size is negatively related to earnings management. This implies that large firms take into perspective reputation cost in engaging in

earnings management. This finding coincides with the evidence in Kim et al. (2003). Therefore, large Nigerian firms engaged less in earnings management.

Since debt covenant is insignificant in the case of Nigerian firms in table 4.5, the findings coincide with the view of Watt and Zimmerman (1986) that firms that are close to the violation of their debt agreements adopt accounting choices that lower the likelihood of their default. The result also contrasts with DeAngelo et al. (1994) that document income-decreasing discretionary accruals of firms seeking to obtain better terms in debt contract renegotiation. This pronouncement could mean that the cohort of Nigerian firms in our analysis are neither close to violation of their debt agreements nor in the process of renegotiating their debt contracts during the sample period. From the aforementioned, it draws to the conclusion to reject the hypothesis of an existence of a positive relationship between debt covenant and earnings management as indicated in hypothesis number 5.

Furthermore, the results exhibit that the relationship between GROWTH and earnings management is significantly negative. For instance, the coefficient of GROWTH is -0.003 and -0.001, significant at the 5 percent level, under the Jones (1991) and modified Jones (1995) model, and -0.013, significant at the 1percent level under Kothari et al. model (2005). The coefficient of GROWTH is both statistically insignificant and economically negligible under the Healy (1985) and DeAngelo (1986) models. The estimated coefficient suggests that high growth firms experience low level of earnings management in Nigeria. The results are however, inconsistent with prior literature and the stated hypothesis; therefore this study recommends the rejection of the hypothesis that GROWTH is positively related to earnings management as stated in hypothesis number 6. These findings are in contrast to the views of McNichols (2000). The author documents that "growth firms are likely to exhibit positive discretionary accrual

estimates, and that a comparison of their estimated discretionary accruals to those of firms with lower growth can lead to a conclusion of greater earnings management by these firms" (McNichols, 2000, p.332). This study however does not find similar evidence in the case of Nigerian firms.

Finally, this empirical evidence documents that the coefficient of ROA is positive but insignificant across the models. The estimated result indicates that the economic performance of Nigerian firms does not directly influence earnings management. This also suggests that Nigerian firms may not engage in performance related abnormal accruals to manipulate their reported financial results. In addition, this result is in contrast with hypothesis number 7 that return on assets is positively related to earnings management. Thus, the result is also in divergence with the argument of Myers and Skinner (2007) that firms manipulate their current year reported earnings to sustain prior years' economic performance.

In summary, the empirical results show that firms with low growth and small-sized firms in Nigeria are more exposed to earnings management. Given the fact that the main purpose of earnings management is to maximize share value, the extent of earnings management among these sorts of firms is not unlikely in Nigeria.

Table 4.5: Regression Results on Earnings Management Models

	Base Regression models				
	I	**II**	**III**	**IV**	**V**
	Jones	**Modified Jones**	**Healy**	**DeAngelo**	**Kothari**
Intercept	8.796**	10.415**	2.370*	2.409*	3.311*
	(0.011)	(0.005)	(0.053)	(0.053)	(0.017)
GROWTH	-0.003**	-0.001**	-1.06E	-1.07E	-0.013***
	(0.034)	(0.039)	(0.982)	(0.982)	(0.000)
LEV	-0.087	-0.096	0.038	0.039	0.005
	(0.811)	(0.807)	(0.764)	(0.764)	(0.970)
FIRM SIZE	-1.275***	-1.354***	-0.338***	-0.344***	-0.636***
	(0.000)	(0.000)	(0.007)	(0.007)	(0.000)
ROA	4.332	4.619	1.487	1.512	2.849
	(0.347)	(0.353)	(0.365)	(0.365)	(0.128)
D2	-1.054	-1.124	0.538	0.547	0.139
	(0.420)	(0.426)	(0.249)	(0.249)	(0.792)
D3	0.579	0.684	0.491	0.499	0.498
	(0.792)	(0.773)	(0.773)	(0.531)	(0.576)
R^2	0.031	0.023	0.016	0.016	0.522
Adj R^2	0.021	0.013	0.006	0.006	0.517
F-stats	3.122***	2.347**	1.632	1.632	107.63***
	(0.005)	(0.030)	(0.135)	(0.135)	(0.000)
N	598	598	598	598	598

Note: *The dependent variable is discretionary accruals from the five models of 62 Nigerian firms listed on the Nigerian Stock Exchange (NSE) for the period of 2003-2012. GROWTH is defined as change in sales divided by sales in year t-1 in percentage. LEV is defined as firms total debt divided by total assets. FIRM SIZE is defined as the natural log of total assets of firms. ROA represents firms' earnings before interest and taxes divided by total assets. D2 and D3 are dummy variables representing manufacturing and energy, and services industries, respectively.*

Figures above in parentheses are the p-values.

***, **, * indicate statistical significance at 1%, 5% and 10% level, respectively (two-sided test).

4.3.4 Regression Results of the Effect of Share Ownership on Earnings Management

Results from panels A to D in Table 4.6 suggest ownership structure is insignificant in explaining earnings management among the Nigerian firms. This finding does not give a clear indication of the relationship between ownership structure and earnings management according to the stated hypothesis number 1. The results are also inconsistent with the view that decomposed ownership structure discourages active involvement in earnings management according to Hsu and Koh (2005). However, Dabor and Adeyemi (2012) argue that an effective mechanism to constrain earnings management is the development of an appropriate ownership structure.

Panel A shows the impact of institutional ownership on earnings management among Nigerian firms listed on the Nigerian Stock Exchange (NSE). The result of Kothari et al. (2005) stipulates an insignificant negative effect of INST on earnings management. This implies that the role of institutional shareholding in Nigerian business environment does not have any effect on managerial discretion to engage in earnings management. This finding is in contrast with the notion that institutional ownership restrains managers' earnings management activities and also decreases managerial incentives to adopt aggressive earnings management behaviors (Koh, 2003, p. 109).

Panel B and C show the impacts of insider ownership on earnings management among Nigerian firms listed on the stock exchange. The study finds that managerial ownership among the Nigerian firms has an insignificant effect on discretionary behavior of managers. This suggests that managerial ownership has no deterministic effect on earnings management on Nigerian firms. Importantly, allowing CEO to become a part of ownership in Nigerian companies does not resolve the problem of earnings management whereas extant literature

suggests a significant negative impact of CEO ownership on discretionary accruals. As an example, a prior empirical study, such as Gabrielsen et al. (2002), contradicts the findings in relation to Nigerian firms. In a sample of Danish firms, Gabrielsen et al. (2002) however document a non-significant positive relationship between managerial ownership and discretionary accruals. Therefore, the insignificant findings on managerial ownership-earnings management relationship in the case of Nigerian firms are not completely unlikely.

Panel D shows the impact of individual ownership on earnings management among the firms on the Nigerian Stock Exchange. The estimated result suggests a positive but non-significant effect of individual ownership on discretionary accruals across four earnings management models and a negative but insignificant coefficient of INDV on discretionary earnings in the case of Kothari et al. (2005). Though average individual ownership among publicly-listed Nigerian firms lies in between 7 percent and 42 percent, most of these individual owners hold small fraction of total ownership. In addition, majority of ownership is held by government and its entities, thus the influence of individual level ownership in controlling the problem of earnings management is minimal. This evidence is consistent with Zhong et al. (2007) as the author find a significant positive relationship between blockholder ownership and discretionary accruals.

Table 4.6: Relationship Between Ownership Variables and Earnings Management

Panel A: Regression results including Institutional Ownership as an independent variable					
	I	**II**	**III**	**IV**	**V**
	Jones	**Modified Jones**	**Healy**	**DeAngelo**	**Kothari**
Intercept	9.016**	10.016**	9.804**	9.965**	9.002**
	(0.024)	(0.012)	(0.014)	(0.014)	(0.026)
GROWTH	-1.454***	-1.586***	0.102***	0.103***	-0.297***
	(0.000)	(0.000)	(0.005)	(0.005)	(0.000)
LEV	0.507	0.516	0.428	0.435	0.453
	(0.345)	(0.336)	(0.425)	(0.425)	(0.405)
FIRM SIZE	-1.255***	-1.254***	-1.182***	-1.201***	-1.264***
	(0.001)	(0.001)	(0.009)	(0.001)	(0.001)
ROA	8.012*	7.990*	8.385*	8.523*	8.336*
	(0.075)	(0.076)	(0.063)	(0.063)	(0.068)
INST	-0.153	-0.154	-0.144	-0.146	-0.146
	(0.112)	(0.111)	(0.111)	(0.137)	(0.139)
D2	1.916	1.884	1.852	1.882	1.958
	(0.115)	(0.121)	(0.128)	(0.128)	(0.112)
D3	0.456	0.461	0.279	0.283	0.474
	(0.823)	(0.821)	(0.892)	(0.892)	(0.819)
R^2	0.888	0.904	0.083	0.083	0.292
Adj R^2	0.885	0.901	0.054	0.054	0.270
F-stats	246.1***	293.1***	2.828***	2.828***	12.785***
	(0.000)	(0.000)	(0.007)	(0.007)	(0.000)
N	224	224	224	224	224

Figures above in parentheses are the p-values.

***, **, * indicate statistical significance at 1%, 5% and 10%, respectively (two-sided test).

Panel B: Regression results including CEO ownership as an independent variable					
	I	II	III	IV	V
	Jones	Modified Jones	Healy	DeAngelo	Kothari
Intercept	-1.819***	-0.823	-0.126	-0.128	-1.605***
	(0.000)	(0.104)	(0.311)	(0.311)	(0.000)
GROWTH	-1.467***	-1.599***	0.090***	0.092***	-0.310***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
LEV	0.031	0.035	0.011	0.011	0.025
	(0.254)	(0.211)	(0.124)	(0.124)	(0.050)**
FIRM SIZE	0.018	0.018	0.006	0.006	0.000
	(0.750)	(0.756)	(0.672)	(0.672)	(0.982)
ROA	0.899	1.072	0.451***	0.458***	0.921***
	(0.173)	(0.122)	(0.010)	(0.010)	(0.004)
CEO	0.006	0.005	-0.000	-0.000	-0.011
	(0.546)	(0.589)	(0.846)	(0.846)	(0.139)
D2	0.038	0.010	-0.066	-0.067	-0.037
	(0.810)	(0.950)	(0.116)	(0.116)	(0.627)
D3	0.194	0.182	-0.006	-0.006	0.068
	(0.258)	(0.312)	(0.890)	(0.890)	(0.404)
R^2	0.999	0.999	0.997	0.997	0.999
Adj R^2	0.999	0.999	0.996	0.996	0.999
F-stats	5778***	62375***	3231.27***	3231.27***	11261.42***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	75	75	75	75	75

Figures above in parentheses are the p-values.

***, **, * indicate statistical significance at 1%, 5% and 10%, respectively (two-sided test).

Panel C: Regression results including Chairman Ownership as an independent variable					
	I	**II**	**III**	**IV**	**V**
	Jones	**Modified Jones**	**Healy**	**DeAngelo**	**Kothari**
Intercept	22.225**	25.164**	-2.100*	-2.135*	3.947*
	(0.047)	(0.039)	(0.076)	(0.076)	(0.058)
GROWTH	-0.383***	-0.420***	-0.023***	-0.023***	-0.116***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
LEV	-0.686	-0.747	0.082	0.084	-0.128
	(0.556)	(0.556)	(0.503)	(0.503)	(0.555)
FIRM SIZE	-2.425**	-2.627**	0.219**	0.223**	-0.544***
	(0.017)	(0.017)	(0.040)	(0.040)	(0.004)
ROA	9.797	10.814	-1.421	-1.444	1.047*
	(0.473)	(0.467)	(0.325)	(0.325)	(0.068)
CHAIR	0.009	0.011	-0.004	-0.004	-0.010
	(0.969)	(0.966)	(0.872)	(0.872)	(0.827)
D2	-5.088	-5.523	0.487	0.495	-0.997
	(0.147)	(0.148)	(0.189)	(0.189)	(0.627)
D3	-3.279	-3.552	0.317	0.322	-0.630
	(0.568)	(0.570)	(0.601)	(0.601)	(0.557)
R^2	0.367	0.370	0.184	0.184	0.596
Adj R^2	0.342	0.345	0.151	0.151	0.580
F-stats	14.458***	14.656***	5.613***	5.613***	36.736***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	182	182	182	182	182

Figures above in parentheses are the p-values.

***, **, * indicate statistical significance at 1%, 5% and 10%, respectively (two-sided test).

Panel D: Regression results including Individual Ownership as an independent variable					
	I	**II**	**III**	**IV**	**V**
	Jones	**Modified Jones**	**Healy**	**DeAngelo**	**Kothari**
Intercept	4.461	5.475*	4.958*	5.039*	4.316
	(0.136)	(0.067)	(0.095)	(0.095)	(0.153)
GROWTH	-1.457***	-1.589***	0.098***	0.100***	-0.301***
	(0.000)	(0.000)	(0.002)	(0.002)	(0.000)
LEV	0.035	0.047	0.002	0.002	0.010
	(0.895)	(0.861)	(0.992)	(0.992)	(0.969)
FIRM SIZE	-0.843***	-0.844***	-0.748***	-0.761***	-0.841***
	(0.003)	(0.003)	(0.008)	(0.008)	(0.003)
ROA	6.502*	6.501*	7.650**	7.775**	7.391*
	(0.091)	(0.097)	(0.045)	(0.045)	(0.057)
INDV	0.002	0.001	0.003	0.003	-0.000
	(0.958)	(0.970)	(0.939)	(0.939)	(0.990)
D2	1.286	1.270	1.228	1.248	1.319
	(0.181)	(0.186)	(0.197)	(0.197)	(0.174)
D3	0.729	0.742	0.650	0.661	0.777
	(0.643)	(0.636)	(0.676)	(0.676)	(0.624)
R^2	0.884	0.901	0.066	0.066	0.280
Adj R^2	0.882	0.899	0.043	0.043	0.262
F-stats	308.87***	367.50***	5.856***	2.856***	15.648***
	(0.000)	(0.000)	(0.006)	(0.006)	(0.000)
N	289	289	289	289	289

Figures above in parentheses are the p-values.

***, **, * indicate statistical significance at 1%, 5% and 10%, respectively (two-sided test).

4.3.5 Results Pertaining to Research Question 3 - Characteristics of Nigerian Firms That Are Potential Candidates for Earnings Management

The study validates the selection of the variables used in earlier studies by showing whether the size of an average Nigerian firm (FIRM SIZE), high profitability (GROWTH), managerial efficiency in assets usage (ROA), debt covenant behaviours (LEV) and ownership structure of Nigerian firms have direct impact on the level of discretionary accruals. The study documents that the larger the Nigerian firms, the lower their level of discretionary accruals. This is an indication that large firms in Nigeria take into consideration reputation cost and regulatory penalty among other consequences of earnings management and tend to engage less in earnings manipulation.

Likewise, GROWTH suggests that high profitable firms in Nigeria adopt income-decreasing accounting choices as managers seek to store up positive earnings for future period or future corporate events according to the big bath earnings management hypothesis. The Healy's (1985) big bath earnings management hypothesis assumption is of the view that executive management of firms has incentives to choose income-decreasing discretionary accruals to delay the recognition of current period revenue to the future period (taking a big bath). This further explains that managers within the contest of Nigerian firms will seek to exercise discretion to increase administrative expenses in the current year for potential benefit in the future year(s) rather than income-increasing manipulations that could be easily detected by the auditors in the current year. Additionally, based on Kothari et al. (2005) model-specified estimates of discretionary accruals, in Table 4.6 (panel A-D), the study finds that high profitable Nigerian firms prefer high magnitude of earnings management. Meanwhile, the ROA suggests that

Nigerian firms efficiently utilize their assets in generating revenue that contribute to their high profitability.

The findings corresponding to ownership structure reveal that institutional, managerial and individual ownership do not have any significant impact to resolve the concern related to earnings management. As government and its affiliated entities hold almost 60 percent of ownership, on average, among the Nigerian publicly listed companies, such insignificant role of other shareholders is however not fully unlikely.

Chapter Five: Conclusions

This study documents systematic differences in earnings management of publicly listed companies in Nigeria considering firm characteristics and their ownership structure in the period from 2003-2012. The findings touch on the magnitude of earning management in Nigeria and relative to other countries. The study also performs industry-wise earnings management of Nigerian economic sectors to determine whether earnings management is excessive. Additionally, the study finds results regarding the quality of financial reporting of Nigerian firms including the information content and overall impact of accounting restatements. The study observes mixed results from the regression analysis, suggesting that some firm characteristics are key determinants for explaining earnings management among Nigerian companies and share ownership structure is insignificant in explaining earnings management among Nigerian companies. Policy implications and recommendations on how earnings management can be curtailed are made. Finally, the limitation faced in the study is mentioned.

In contrast to most of the existing research, this study includes five discretionary accruals models to examine which model specification has the greatest statistical power to explain earnings management in the case of publicly-listed Nigerian firms. Using the classical assumptions, the results suggest that the Kothari et al. (2005) performance-matched model provides better explanatory power on earnings management in the Nigerian context. Importantly, the results of the study illustrate that the aggregate earnings management for Nigeria is 5.02 percent. The aggregate discretionary accruals implies that publicly-listed firms in Nigeria engage less in earnings management compared to other developing nations (Leuz et al. 2003). Furthermore, the quality of financial reporting is high for Nigerian companies compared to

companies in other developing nations (e.g. the Philippines, Malaysia, Pakistan, Thailand, Indonesia and India where earnings management is perceived to a range between 8.8 to 19 percent) [Leuz et al. 2003].

Nevertheless, after the industry-wise decomposition of earnings management in Nigeria, the finding shows that the Manufacturing and Energy sector of the Nigerian economy has the highest level of earnings management at 48.38 percent. This sector includes the Industrial, Material, and the Oil and Gas subsector of the Nigerian economy. The excessive manipulation of earnings in this sector could be a result of high import, export duties and other relevant tariffs on the operations of the firms. Additionally, the second sector in which earnings management is rampant is the Consumer Goods sector with 41.93 percent. This segment of the economy represents the consumer discretionary and consumer staples such as Food and Beverages, Tobacco and household items, Apparel, Automobile and Components. Finally, the Services sector (Financial, Healthcare and Telecommunications) is the least manipulative sector with the earnings management percentage of 9.67 percent. The result of this sector, especially the financial service subsector of the industry, could be attributed to the strict legal and regulatory requirements such as the Banks and Other Financial Institutions Act of 1991 (BOFIA). Overall, the industry-wise analysis reveals that the services sector has a higher quality of financial reporting compared to other sector of the Nigerian economy.

Inevitably, the finding also indicates that the dynamism of share ownership does not influence the level of earnings management in Nigeria. The result is contrast to extant literature that ownership structures influence the discretionary behaviour of the firm. In this instance, the study documents that individual (INDV) ownership concentration does not have significant effect on the discretionary accruals. This in essence means that when there is greater separation

between owners and managers, the managers do not face much pressure to meet shareholders' expectation as well as from the capital market to signal the firms' value to the market. On the other hand, insiders such as the CEO and CHAIR show signs that they will become more involved in the firm when they have stakes in the firm but the result is insignificant at any level. It should be noted that the need for outside monitoring of managers activities will reduce as long as the significant interests of insider shareholders (CEO and CHAIR) and external shareholders converge. This is because:

> When insider ownership is below 25 percent, insider ownership has a positive (negative) effect on the information content of earnings (discretionary accruals) according to the agency theory predictions, but above this level managers are entrenched and the relationship reverses on both variables (Yeo et al. 2002, p. 1034).

Additionally, institutional (INST) ownership has no significant effect on earnings management of publicly-listed companies in Nigeria. This is also inconsistent with the fact that the presence of unrelated external shareholders such as INST should influence the discretionary behaviour of firms. For instance, Yeo et al. (2002) document that "the existence of substantial external unrelated shareholders leads to closer monitoring of the executive management that indicate lesser opportunity to manipulate the reported earnings" (p. 1025).

Consequently, the findings in this study therefore have critical policy implications in real world of Nigerian business environment. First, insider ownership such as the CEO and CHAIR should be encouraged to have significant ownership within the firms they are managing. This will help to solve the agency problem if not eliminate earnings management completely in

Nigeria. However, it will also ensure that the activities of the CEO and CHAIR would be geared towards the primary objective of share value maximization of the firm.

Second, INST should also retain more significant ownership to increase the level of monitoring of the activities of the executive management. The retention of significant ownership by INST will reduce managerial incentive to employ aggressive earnings management activities (Koh, 2003). Meanwhile, since 60 percent of share ownership belongs to either the government or their affiliates and the high profile political class in Nigeria, the regulatory authorities should ensure that such ownership is geared to influence the reduction of earnings management in Nigeria. Therefore, control mechanisms such as ownership thresholds, which will check excessive share ownership of these insider and external shareholders, should also be formulated by the relevant regulatory authority.

Third, LEV is found insignificant across all estimated models whereas this variable has been used as a proxy for financial accounting restatement. Nonetheless, such restatement should have a significant influence on determining the quality of earnings management. Given this contradictory evidence, it is recommended that the appropriate regulatory authority in Nigeria should maintain a database of financial accounting restatements of firms listed on the Nigeria Stock Exchange (NSE) since some of these restatements are technically used to achieve financial reporting fraud. For instance, the United States Government Accountability Office (GAO) maintains the GAO Financial Restatement Database (GAO-06-1079sp) to keep track of restatement announcements that they identified as having been made because of financial reporting fraud and/or accounting errors (US. GAO, 2015). In addition, the US GAO database also issues trend update on publicly listed firms, market impacts assessment and regulatory enforcement activities on accounting restatements (US. GAO, 2015). Finally, stricter financial

reporting guidelines and regulatory frameworks such as the recently adopted Financial Reporting Standards (IFRS) should be implemented fully across all sectors to boost credibility and quality of financial reporting within the Nigerian business environment.

This study contributes to existing earnings management literature taking into account the publicly listed firms in Nigeria over a decade. While similar studies have been carried out in Nigeria, the authors have only used one type of model (modified Jones model). This study draws out further limitations of these past studies from their use of survey instruments and hypothetical figures for the research of this high magnitude. However, the views of these authors cannot be conjured into any policy recommendation for the Nigerian corporate sector.

Meanwhile, the limitations faced in this study are the estimation of missing data and the omission of several other business-specific factors such as the size of workforce, the production volume and the effect of takeover bid. Although, missing data is common in studies related to developing countries like Nigeria, the findings of this study have significant policy implication for Nigerian corporate entities. Accordingly, future research is needed to determine the pre and post adoption impact of the newly adopted International Financial Reporting Standard (IFRS) on accounting quality among Nigerian firms using Barth et al. (2008) model of empirical investigation. Lastly, the pattern of earnings management in Nigeria during economic cycle including cultural factors and corruption index will also be important area of future studies.

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