

**MODERATING EFFECT OF IFRS ON THE RELATIONSHIP BETWEEN CORPORATE  
GOVERNANCE AND EARNINGS MANAGEMENT OF LISTED HEALTHCARE  
FIRMS IN NIGERIA**

**BY**

**Sale, SULE  
P16ADAC 8237**

**A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES OF  
AHAMDU BELLO UNIVERSITY, ZARIA IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE DEGREE (M.sc) IN  
ACCOUNTING AND FINANCE,**

**DEPARTMENT OF ACCOUNTING  
AHMADU BELLO UNIVERSITY,  
ZARIA**

**March, 2018**

## **DECLARATION**

I hereby declare that the work titled: “MODERATING EFFECT OF IFRS ON THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE AND EARNINGS MANAGEMENT OF LISTED HEALTHCARE FIRMS IN NIGERIA” has been done by me under the supervision of Prof. I.L. Chechet and Dr. (Mrs.) A.C. Dikki of the Department of Accounting, Ahmadu Bello University Zaria. The information gathered from literatures has been duly acknowledged in the text and a list of references provided. No part of this dissertation was presented elsewhere for award of any certificate. I take the sole responsibility of all errors therein.

**Sale, SULE**

.....  
P16ADAC 8237

.....  
**SIGNATURE**

.....  
**DATE**

## CERTIFICATION

This is to certify that the dissertation titled “MODERATING EFFECT OF IFRS ON THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE AND EARNINGS MANAGEMENT OF LISTED HEALTHCARE FIRMS IN NIGERIA” by Sale, SULE meets the regulations governing the award of the degree of Masters of Science (M.sc) in Accounting and Finance in Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

**Professor I. L. Chechet**

.....  
Chairman, Supervisory Committee

.....  
**Signature**

.....  
**Date**

**Dr. (Mrs.) A. C. Dikki**

.....  
Member, Supervisory Committee

.....  
**Signature**

.....  
**Date**

**Dr. Salisu Abubakar**

.....  
Head of Department

.....  
**Signature**

.....  
**Date**

**Professor Sadiq Z . Abubakar**

.....  
Dean, Postgraduate School

.....  
**Signature**

.....  
**Date**

## **DEDICATION**

This dissertation is dedicated to my late parents Alh. Sulaiman Muhammad and Haj. Amina Sulaiman may their gentle souls rest in Jannatul-firdaus.

## ACKNOWLEDGMENT

I am most grateful to Almighty Allah, the most Beneficent and the most Merciful, my source of hope and inspiration who bolster my health and wisdom to attain this desirable height in life.

I would like to express my gratitude to my untiring and determined supervisors; Prof. I.L. Chechet and Dr. (Mrs.) A.C. Dikki who read through the work and offered useful suggestions that significantly improved the quality of this work. I also appreciate the impact of my internal examiners at the level of post data; Dr. Luka Mailafiya and Dr. Mustapha M. Bagudo who succored in redressing and reshaping the work to be presentable, thank you to a greater extent. My acknowledgment will be incomplete without mentioning the efforts of Dr. Farouk Adeiza for his contribution to the work particularly on the aspect of data analysis.

Further, my special regards to Alh. Mohammed Sulaiman and Haj. Asiya Mora for your incessant support. My special appreciation goes to my dear wife Hadiza Muhammad and my children Sulaiman (Waleed) and Muhammad (Mashhood), for their patience and prayers throughout the duration of the programme. I am most grateful to all my brothers and sisters for their moral and psychological support in my quest for knowledge.

I would like to express my sincere appreciation to Dr. Aminu Abdullahi Shagali who helped me to a large extent both financially and spiritually. Finally, I owe special thanks to all my friends and comrades for their love and unconditional friendship. I am also indebted to all others that contributed either directly or indirectly to the success of this work whose names are not mentioned specifically due to space limitation.

## **ABSTRACT**

*This study examines the moderating effect of IFRS on the relationship between corporate governance and earnings management of listed healthcare firms in Nigeria. The study utilized secondary data extracted from the audited annual financial report of the companies for the periods of 2009 to 2016. Data was first analyzed by means of descriptive statistics to provide summary statistics for the variables and subsequently, correlation analysis was carried out using Pearson correlation technique to correlate the moderating effects of IFRS on the relationship between corporate governance and earnings management. A panel data regression technique was employed since the data has both time series and cross sectional attributes. Regression technique based on Robust Least Square method was employed in analyzing the data. The study found that corporate governance mechanisms does not create a situation where IFRS adoption affects earnings management. Hence the study concludes that IFRS adoption does not significantly moderate the relationship between corporate governance and earnings management of Nigerian healthcare firms. Therefore, it is recommended that the FRCN and NASB should make it mandatory for companies to give a detailed disclosure on IFRS and also ensure that necessary steps should be taken for strict adherence to IFRS requirements in Nigeria.*

## TABLE CONTENTS

<b>Title page</b>	<b>i</b>
<b>Declaration</b>	<b>-ii</b>
<b>Certification</b>	<b>iii</b>
<b>Dedication</b>	<b>iv</b>
<b>Acknowledgement</b>	<b>v</b>
<b>Abstract</b>	<b>vi</b>

### CHAPTER ONE: INTRODUCTION

<b>1.1 Background to the Study</b>	<b>1</b>
<b>1.2 Statement of the Problem</b>	<b>6</b>
<b>1.3 Objectives of the Study</b>	<b>7</b>
<b>1.4 Research Questions</b>	<b>8</b>
<b>1.5 Hypotheses of the Study</b>	<b>8</b>
<b>1.6 Scope of the Study</b>	<b>9</b>
<b>1.7 Significance of the Study</b>	<b>-9</b>

### CHAPTER TWO: LITERATURE REVIEW

<b>2.1 Introduction</b>	<b>-12</b>
<b>2.2 The Concept of Corporate Governance-</b>	<b>12</b>
<b>2.3 Earnings Management</b>	<b>-19</b>
<b>2.4 Concept of International Financial Reporting Standard</b>	<b>21</b>
<b>2.5 Empirical Review Board Size and Earnings Management</b>	<b>23</b>
<b>2.5.1 Audit Committee Size and Earnings Management</b>	<b>24</b>
<b>2.5.2 Ownership Concentration and Earnings Management</b>	<b>-26</b>
<b>2.5.3 Firm Size and Earnings Management</b>	<b>28</b>
<b>2.5.4 Leverage and Earnings Management</b>	<b>29</b>
<b>2.5.5 IFRS and Earnings Management</b>	<b>30</b>
<b>2.6 Theoretical Framework</b>	<b>32</b>

<b>2.7 Summary</b>	<b>-32</b>
--------------------	------------

### **CHAPTER THREE: METHODOLOGY**

<b>3.1 Introduction</b>	<b>-36</b>
<b>3.2 Research Design</b>	<b>-36</b>
<b>3.3 Population, Sample size and sampling technique</b>	<b>36</b>
<b>3.4 Sources and Methods of Data Collection</b>	<b>-37</b>
<b>3.5 Data Analysis Techniques and Justification</b>	<b>-37</b>
<b>3.6 Variable Measurement and Model Specification</b>	<b>-37</b>
<b>3.7 Model Specification</b>	<b>-40</b>
<b>3.8 Robustness Test of independent and dependent variables</b>	<b>-41</b>

### **CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS**

<b>4.1 Introduction</b>	<b>-44</b>
<b>4.2 Descriptive Statistics</b>	<b>44</b>
<b>4.3 Correlation Analysis</b>	<b>-46</b>
<b>4.4 Presentation and Interpretation of Regression Result</b>	<b>48</b>
<b>4.5 Hypothesis Testing</b>	<b>-51</b>
<b>4.6 Findings and Policy Implication</b>	<b>-55</b>

### **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

<b>5.1 Summary</b>	<b>-60</b>
<b>5.2 Conclusion</b>	<b>-61</b>
<b>5.3 Recommendations</b>	<b>-63</b>
<b>5.4. Frontier for Further Research</b>	<b>-64</b>



**References** .....-65

**Appendices** ..... 78

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

Earnings management and Corporate Governance study has received considerable attention from academics, market participants, and regulators. This is due to among other things financial scandals around the world and the collapse of major corporate institutions in the USA, Asia, Europe and Nigeria such as Adelphia, Enron, World Com, Vivindi, Xerox, Royal Dutch Shell, China Aviation, Tyco, Wema Bank, NAMPAK, Fin bank, Spring bank, Commerce Bank, Global Crossing and Cadbury which have shaken the confidence of investors in the capital markets (Effiok&Effiong, 2012). This phenomenon led to a global movement towards developing and implementing good corporate governance that will eliminate the opportunistic behaviors that have hampered stakeholder's reliance on financial information (Hassan & Ahmed, 2012).

The need for earnings quality and uniformity in the preparation and presentation of financial statements gave birth to International Financial Reporting Standards (IFRS). Before the adoption of IFRS in 2012 in Nigeria, there were legal and regulatory frameworks of Accounting in respect to preparation of financial report in Nigeria (Christensen, 2012). The Company and Allied Matter Act (CAMA) 1990 prescribe some format and content of company financial statement disclosure requirements and auditing. It requires that the financial statement of all corporate organizations comply and adhere with the Statement of Accounting Standards (SAS) issued from time to time by the Nigerian Accounting Standard Board (NASB). This also requires that audit be carried out in accordance with the General Auditing Standards. The IFRS adoption was organized in such a way that the entire stakeholders that prepare and present financial statement use it by the beginning of 2014. It was made in such a way that all the first tier companies listed

on the stock exchange and are of public interest use it by 2012, all other company of public interest but not first tier were to adopt it in 2013, and all small and medium scale entity were to use it by January, 2014. Financial reporting standard exists because it serves as stewards to the owner of firms as ownership is divorced from controlling the activities of the business (Kabara, 2013).

The Nigerian Security and Exchange Commission (SEC) mandated companies to prepare and publish annual audited financial statement in conformity with guidelines and principles issued by the apex regulatory institutions. Nonetheless, managers still upheld on earnings management practices in order to increase its market value and maximize shareholders wealth (Ekoja, 2012). The regulatory flux and the alternative accounting policies have habitually necessitated the exercise of judgment in preparing financial statements. The inference of using such decisions is that information provided by management which always arouses a certain decision by different users takes a wrong pronouncement when preparers decides to convey deceptive information.

Despite the guiding principles, possibilities of judgment in accounting within the parameter of Generally Accepted Accounting Principles (GAAP) are not altered as managers do. It is inconceivable situation to have accounting systems that are totally ruled based without room for occasional judgments (Bello, 2005). Since new situation may require new accounting rules, then it is not possible to wipe-off the generally accepted accounting principle judgment opportunities created for management in accounting. Therefore, efforts have been made by researchers to devise methods and system in which the opportunistic behavior exhibited by managers can be reduced. The self-serving information provided by managers may be as a result of manager's intention to influence a particular contractual outcome among others that relies on reported

earnings or to mislead the stakeholders about the underlying economic performance of its organization. The issue of occasional judgment in accounting has come to stay rather than its possible elimination as it has become an unimaginable situation to have accounting systems that are totally ruled based (Bello, 2005).

Separation between ownership and control, will lead managers to manipulate earnings in order to maximize their own interest thus influencing the informativeness of earnings (Gulzar & Wang, 2011). When the interests of shareholders and managers diverge, managers tend to maneuver earnings for their own purposes at the cost of shareholders' interest (Isenmila & Elija, 2012). For these reasons, how to improve corporate governance mechanisms is an interesting topic for research. Thus, in order to protect the rights of the stakeholders, it is vital for an organization to have effective corporate governance mechanisms which can control the pervasive practice of earnings manipulation.

The IFRS allow firm managers greater flexibility in choosing from among alternative accounting treatments. These choices can have different effects on a firm's reported income. Hashem, Bahman and Azam (2012) argue that managers tend to prefer accounting choices that benefit them economically. The likelihood of this opportunistic behaviour rises in the presence of weak governance structures, eventually causing the quality of reported earnings to deteriorate and reducing investors' confidence in corporations (Johnston & Rock, 2005). This opportunistic behaviour, known as earnings management, entails the creative use of accounting techniques in such a way that the financial reports produced give an excessively positive picture of firms' business activities. Earnings management can include changes in the estimated amount of assets impaired, the volume of bad debts written off, the amount of inventory recorded, the estimated

useful life of long-term assets, and estimated post-employment benefits and warranty costs (McKee, 2005).

Better governance is supposed to lead a better corporate performance by preventing the expropriation of controlling shareholders and ensuring better decision making (Ekoja, 2012). This expropriation may be due to the result of smoothening of earnings intention which is known as earnings management. Good governance means little expropriation of corporate resources by managers or controlling shareholders, which contributes to better allocation of resources and better performance. As investors and lenders will be more willing to put their money in firms with good corporate governance and this will lead to lower costs of capital. Other stakeholders including employees and suppliers will also want to be associated with and enter into business relationships with such firms, as the relationship are likely to be more successful than those firms with less effective governance. However, having a good set of rules and regulations do not guarantee good corporate governance practices unless regulatory authorities effectively enforce these requirements. Over the past two decades a number of prominent participants in the debates surrounding professional accounting and auditing standards have increased the attention given to the role of corporate governance procedures in earnings management practices (Uadiale, 2012). Corporate governance is not just about the process by which management of firms such as directors make decisions, it is also about the way the organizations are held accountable.

Growing evidences from prior researches supports the argument that earnings management is a common practice in firms (Dye, 1988; Kao & Chen, 2004; Kabara, 2013). Bakre (2007), Ekoja (2002), Okike (2009), Alhaji, (2014) had all cited evidences of earnings management in Nigerian firms. Given that managers have flexibility in choosing accounting policies, they

choose policies that maximize their own utility. Several studies on earnings management take this opportunistic perspective (Vafeas, 2000; Romano, 2005; Saleh, Iskandah & Rahmat, 2005).

The healthcare industry in Nigeria, like any other industry in the country is required to comply with the requirements of code of CG for public companies in Nigeria. The code is expected to ensure highest standards of transparency, accountability and good CG, without unduly inhibiting enterprise and innovation. Similarly, IFRS provides guide on accounting practices and reporting formats to be followed by companies listed on the stock exchange and are of public interest. Despite the strategic importance of the industry to the economy, not much attention in research is given to the CG practices of healthcare companies in Nigeria. This study, therefore, aims to determine the impact of corporate governance and IFRS on the earnings management of Nigerian healthcare firms.

This study is motivated by two considerations. First, the health care industry in Nigeria being one of the fastest growing in the economy (estimated 7-9% growth rate), is characterized by several companies. However, there is a clear dominance of the multinational brands due to their relative earnings capacity, market capitalization, track record and strategic international alliances. Second, the country's investment climate is not attractive, given that firms involved in earnings management are liable to spread false information in the market. This induces investors to make sale or purchase decisions that lead to losses, eventually eroding their confidence. In order to attract more capital and enhance investor confidence, companies need to provide an attractive investment climate and good governance, increase overall transparency, and reduce information asymmetry.

## **1.2 Statement of the Problem**

Ineffective corporate governance mechanisms provide incentives to management to manipulate earnings and this results in corporate failure. A comprehensive study of Nigerian listed firms by World Bank Group (2004) and Uwalomwa, Daramola and Anjolaoluwa (2014) show that corporate governance practices in Nigeria is somehow weak. Considering the importance of corporate governance in influencing earnings manipulation, there has been little research on the link between corporate governance and earnings management using the moderating effect of IFRS in the healthcare industry.

In Nigeria, concerns have been expressed about the negligence and abuse of the system by capital market operators especially following the incidence of collapse of some healthcare companies. Companies that have gone into liquidation could be for reasons of ineffective or non-existing system of corporate governance. Examples are Arewa Pharmaceutical Ltd, Zarinject Healthcare Ltd and Zazzau Pharmaceutical Industries Ltd (Joshua, Anthony and Titus, 2014). In Nigeria, performance indices for the healthcare sector showed poor performance as a result of excessive earnings manipulation in the industry.

A number of studies have been conducted on corporate governance and earnings management at different times in developed, as well as, developing countries, most of which are well documented in accounting and finance literature. These studies include that of Garcia-Meca. & Sanchez-Ballesta, (2009); Gulzar & Wang, (2011); Uadiale, . (2012); Usman & Yero, (2012) and Uwalomwa, Daramola & Anjolaoluwa, (2014). These studies used few ttributes of corporate governance such as board composition, power separation and audit committee composition as corporate governance proxies. This study employed different proxies of corporate

governance which include board size, audit committee size and ownership concentration, in order to have robust results. In addition, most of the studies on corporate governance in Nigeria concentrate on banks paying little or no attention to healthcare firms despite the important role they play in the economic development of the country, resulting to the dearth of studies on corporate governance and earnings management in Nigerian healthcare industry. In addition, none of these studies uses the moderating variable of IFRS on corporate governance and earnings management of companies in Nigeria. Using moderating variable may reinforce corporate governance mechanisms in blending together to halt the menace of earnings manipulation since they independently serves as internal control mechanisms.

Despite the importance of healthcare industry to the growth and development of the Nigerian economy, there is paucity of research in corporate governance and earnings management in Nigerian healthcare sector. Consequently, there is the need to examine the impact of corporate governance on the earnings management by relating the activities of board size, audit committee size, ownership concentration and moderating effect of IFRS to the earnings management of those companies with a view to determine the extent of the relationship. This study is carried out to fill this gap for the Nigerian healthcare industry.

### **1.3 Objectives of the study**

The main objective of the study is to examine the moderating effect of IFRS on the relationship between corporate governance and earnings management of listed healthcare firms in Nigeria.

The specific objectives of the study are to:

- i. Access the effect of board size on earnings management of listed Healthcare Firms in Nigeria.



- ii. Examine the effect of audit committee size on earnings management of listed Healthcare firms in Nigeria.
- iii. Investigate the effect of ownership concentration on earnings management of listed Healthcare firms in Nigeria.
- iv. Assess whether the effect of IFRS is influenced by the relationship between earnings management and corporate governance of listed Healthcare firms Nigeria.

#### **1.4 Research Questions**

- a) Does board size have any effect on earnings management of listed Healthcare firms in Nigeria?
- b) Does audit committee size have any effect on the earnings management of listed Healthcare firms in Nigeria?
- c) Does ownership concentration have any effect on the earnings management of listed Healthcare firms in Nigeria?
- d) Does moderating effect of IFRS have any effect on the relationship between earnings management and corporate governance of listed Healthcare firms Nigeria?

#### **1.5 Hypotheses of the Study**

The following Hypotheses were formulated in line with the objectives above:

**Ho<sub>1</sub>:** Board Size has no significant effect on earnings management of listed Healthcare firms in Nigeria.

**Ho<sub>2</sub>** Audit committee Size has no significant effect on earnings management of listed Healthcare firms in Nigeria.

**Ho<sub>3</sub>:** Ownership Concentration has no significant effect on earnings management of listed Healthcare firms in Nigeria.

**Ho<sub>4</sub>:** IFRS adoption has no significant moderating effect on the relationship between earnings management and corporate governance of listed Healthcare firms in Nigeria.

## **1.6 Scope of the study**

The study examines the moderating effect of IFRS on the relationship between corporate governance mechanisms on earnings management of Healthcare firms listed in the Nigerian Stock Exchange as at 31<sup>st</sup> December, 2016. The study covers a period of Eight years (2009 to 2016). The period under review is deemed relevant to determine the impact of corporate governance mechanisms on earnings management of listed Healthcare firms after IFRS mandatory adoption in Nigeria, and is consistent with duration used in earlier studies like Baba (2011) ; Fatimoh (2012) and Abata (2015). Moreover, the period 2016 is justified because the mandatory adoption of IFRS became operational in 2012 and the period will enable investigating the moderating effect of IFRS adoption in Nigeria.

The research covers only Healthcare firms in the Nigerian Healthcare industry which are listed on the Nigerian Stock Exchange. The study is restricted to the Healthcare industry and hence, its findings may not be generalized to all other industries in Nigeria.

## **1.7 Significance of the Study**

This study contributes to the large debate concerning the role of Corporate Governance mechanisms in controlling the menace of earnings management. More particularly, the study contributes to the growing literatures on the effects of Corporate Governance mechanisms on earnings management using the moderating effect of IFRS.

The study is also significant for the following reasons: Users of accounting information in the sector which include the management, shareholders, investors, financial analyst, and other stakeholders will find this research resourceful in that it will help them in taking various decisions and judgment such as investment and financing. The findings of the study will assist shareholders of healthcare companies in aligning their capital structure and assist in deciding a better investment option. Both current and potential shareholders will benefit from this study as it would assist them in deciding whether to invest or not in those companies.

The SEC will benefit immensely from this research in that the findings will reveal possible loopholes and short comings in the provision of the SEC code of CG with a view to correcting them. The results of the study can be used by the commission in improving its monitoring and enforcement of the code.

The Nigerian Accounting Standard Board (NASB) and Financial Reporting Council of Nigeria (FRCN). The FRCN will benefit from the study as it will reveal the earnings quality or otherwise in the industry. This can help in findings ways in which the quality of earnings can reflect in financial reporting in the Healthcare firms as recommendations will be made at the end of the study for the enhancement of the corporate governance mechanisms. The NASB particularly will find this study resourceful as it will reveal the effect of accounting knowledge of Board Size, Audit committee size, Ownership concentration and moderating effect of IFRS on the earnings management in the healthcare companies. The findings can also be used by the professional bodies in maintaining, as well as, improving its training programmes.

The findings of this study are hoped to contribute to empirical literature on CG and earnings management in emerging economies, as it will examine the impact of CG on earnings management in the Nigerian healthcare industry. The result of the study would make a good library material for researchers, as well as, serving as a reference material for researchers and students who may wish to conduct similar studies in this area. Besides that, there exist few studies on CG and earnings management in Nigeria. This study will therefore, extend the boundaries of knowledge.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews related and relevant literatures of the study, detailed conceptual framework of various concepts, techniques of earnings management, factors that motivates earnings management practices, proxies used for earnings management, corporate governance mechanisms and earnings management, as well as theoretical framework that underpins the study.

#### **2.2 The Concept of Corporate Governance**

Corporate Governance is an imprecise concept but it is safe to say that it is all about the manner in which corporations are directed, controlled and held to accountable. It is concerned with effective leadership of corporations to ensure that they selflessly and effectively discharge their responsibilities with a view to maximizing the benefits accruing to all stakeholders.

The emerging market crisis of 1997–1998 has spawned a vast body of research on corporate governance issues. The concept is understood differently in different parts of the world, depending on the relative power of the owners, managers and providers of capital. In other words, a number of scholars have viewed Corporate Governance differently from their own perspectives (Okike, 2002; Romano, 2005; Tijjani & Dabor, 2010 & Uadiale, 2012). Corporate Governance can be viewed from a narrow or broad perspective i.e the shareholder or the stakeholder model. From a narrow perspective, Corporate Governance is concerned with structures within which a corporate entity or enterprise receives its basic orientation and direction. It describes the formal system of stewardship of the board to the shareholders. From a

broad perspective, Corporate Governance is used to describe the network of relationships between an organization and its various stakeholders. It is seen as the heart of both a market economy and of a democratic society (Dabor&Adeyemi, 2009; Adegbie, 2010 and Tijjani &Dabor 2010).

However, it can be argued that there is no need for such a distinction since both models have identified Corporate Governance as a network of relationships between a company and its stakeholders through which the board is held accountable. It should also be noted that the relationships can be between related parties, managers, board of directors, regulatory authorities, employees and the community at large. Romano,(2005) and Abbas (2011) opined that the demand for Corporate Governance is usually a function of complexity of the firm (measured by firm size, type of industry and risk) and the chief executive officers incentive (measured by the extent of equity financing need, free cash flow, leverage, growth and performance).

Sanda, Mikailu and Tukur (2005) on their part see Corporate Governance as the ways in which all parties interested in the well-being of the firm attempt to ensure that managers and other insiders take necessary measures to safeguard the interest of all stakeholders. On its parts, the Basel Committee (1998) consider Corporate Governance from a banking perspective, as the manner in which the business and affairs of a bank are governed by the board of directors and the senior management, which provides the structure through which the objectives of the bank are set and the means of attaining those objectives and monitoring performance. Corporate governance is the blood that fills the veins of transparent corporate disclosure and high-quality accounting practices. Thus it ensures the conformance of corporations with the interests of investors and society, by creating fairness, transparency and accountability in business activities

among employees, management and the board (Vafeas, 2000; Romano, 2005; Saleh, Iskandah and Rahmat, 2005).

Corporate governance is an internal system that includes policies, processes, and people that serve the needs of shareholders and other stakeholders by directing and controlling management activities with good business practices, objectivity, and integrity (Wang & Campbell, 2012). Corporate governance is designed to pursue stakeholders' interests (e.g., obtaining a reasonable return on capital, reducing misappropriation of assets) (Shleifer & Vishny, 1997). The Organization for Economic Cooperation and Development (OECD) in 1999 gave a definition which Concurred with the propositions of (Cadbury 1992; Okike, 2002; Wang, & Campbell, 2012 and Uadiale, 2012). It defines corporate governance as the system by which business corporations are directed and controlled. It is concerned with the respective roles, powers, responsibilities and accountability of stakeholders and the board. Corporate governance is also a set of mechanisms by which outside investors protect themselves against expropriation by insiders (Romano, 2005). These mechanisms include board size, board composition, audit committee and Ownership Concentration.

However, from the above definitions it is clear that in directing and controlling the affairs of a company, the board has to ensure that it takes due care of interests of the various stakeholders. Considering the objectives of study, we perceives CG as the set of structures, cultures and systems through which objectives are set and the means of attaining the objectives and monitoring performance are determined and companies are directed and controlled. This means that Corporate Governance provides a complete foundation to assist stakeholders to exercise their right, protect their interest and mitigate the potential conflicts between them and managers.

Cohen, Krishnamoorthy, and Wright (2002) documented that unless management allows itself to be monitored; the substance of governance activities will be subverted.

Furthermore, the actors of governance process which include board of directors, audit committee, management, internal auditors, external auditors and regulators interactions indicated that the governance process impacts on earnings management through ensuring of transparency, objectivity and, combat unethical tendencies such as earning manipulation and outright fraud. Corporate governance is concerned with structures within which a corporate entity or enterprise receives its basic orientation and direction. It describes the formal system of stewardship of the board to the shareholders. Abbas (2011) opined that the demand for corporate governance is usually a function of complexity of the firm (measured by firm size, type of industry and risk) and the chief executive officers incentive (measured by the extent of equity financing need, free cash flow, leverage, growth and performance).

Therefore, corporate governance is the set of structures, cultures and systems through which objectives are set and the means of attaining the objectives and monitoring performance are determined and companies are directed and controlled. This means that corporate governance provides a complete foundation to assist stakeholders to exercise their right, protect their interest and mitigate the potential conflicts between them and managers. Cohen et al. (2002) documented that unless management allows itself to be monitored; the substance of governance activities will be undermined.

Countries all over the world have set codes of best practice as guidelines to address corporate governance undertaking: Cadbury report was produced in UK, Sarbanes Oxley in United States, the Dey Report in Canada, the Vionot Report in France, the Olivencia Report in Spain, the Kings



Report in South Africa, Principles and guidelines on Corporate Governance in New Zealand and the Cromme Code in Germany. Different models of corporate governance exist around the world. These differ according to the variety of capitalism in which they are embedded. The Anglo-American "model" otherwise known as the "unitary system" tends to emphasize on the interests of shareholders. It relies on a single-tiered Board of Directors that is normally dominated by non-executive directors elected by shareholders. Within this system, many boards include some executives from the company (who are ex officio members of the board). Non-executive directors are expected to outnumber executive directors and hold key posts, including audit and compensation committees. The United States and the United Kingdom differ in one critical respect with regard to corporate governance. In the United Kingdom, the CEO generally does not also serve as Chairman of the Board, whereas in the US having the dual role is the norm, despite major misgivings regarding the impact on corporate governance.

In Nigeria, the Regulatory authorities have responded by compelling companies to comply with corporate governance codes. Adeyemi, Okpala and Dabor (2012) reports that Nigeria has multiplicity of codes of corporate governance with distinctive dissimilarities namely: (i) Securities and Exchange Commission (SEC) Code of CG (2003) addressed to public companies listed in the Nigeria Stock Exchange (NSE), which was reviewed in 2011; (ii) Central Bank of Nigeria (CBN) Code (2006) for banks established under the provision of the Bank and Other Financial Institutions Act (BOFIA) Cap B3 LFN 2004; (iii) National Insurance Commission (NAICOM) Code (2009), directed at all insurance, reinsurance, broking and loss adjusting companies in Nigeria; and (iv) Pension Commission (PENCOM) Code (2008), for all licensed pension fund operators. Despite the interventions of the regulatory authorities, the challenges of curtailing earnings management are still prevalent. This is because of corruption which has

become endemic in the country. Given the high correlation between corporate governance and earnings management, the stakeholders should take advantage of the opportunities in the global market by adhering to principles of good governance. Thus, countries that adhere to best practice of code of corporate governance will attract international investors more than those that do not.

### **i. Board Size**

From an agency perspective, it can be argued that a larger board is more likely to be vigilant for agency problems simply because a greater number of people will be reviewing management actions (Wang, & Campbell, 2012). The evidence on the role of board size is inconclusive (e.g. Dalton, Daily & Johnson, 1999; Eisenberg, Sundgren & Martin., 1998; Uadiale, 2012). However, most of these studies focused on the role of board size in enhancing performance rather than its role in improving the integrity of the financial reporting process.

Given that the major role of the board is to monitor management, the literature on board size is reviewed only from a monitoring perspective. Wang and Campbell (2012) argue that an increase in board size increases the board's monitoring capacity. Kao and Chen (2004) empirically support this argument by finding that larger boards are strongly associated with lower levels of earnings management.

### **ii. Audit Committees Size**

An audit committee is the size of the audit committee charged with oversight of financial reporting and disclosure (Abdullahi & Nasir, 2004). Other roles of the audit committee size include providing assurance that firms are in compliance with pertinent laws and regulations, conducting internal and external affairs ethically, maintaining the control mechanisms in an effective ways against fraud, and dealing with conflicts of interest. Committee members are

drawn from members of the company's board of directors, with a Chairperson selected from among the committee members. In terms of lifting the image of good corporate governance, the roles and responsibilities of audit committees have been generally accepted by various groups of stakeholders (Lin, Li & Yang, 2006). The Companies and Allied Matters Act (CAMA), 1990 states that a public limited liability company should have an audit committee (maximum of six members of equal representation of three members each representing the management/ directors and shareholders) in place. The members are expected to be conversant with basic financial statements.

### **iii. Ownership Concentration**

Ownership concentration is a measure of the existence of large shareholders in a firm (Yaari, DaDalt, Ronen and Yaari, 2007). Being an internal governance device that allows the largest shareholders to gain control over management and decision, large shareholders have greater incentives to monitor management, because the costs associated with monitoring management are less than the expected benefits to their large equity holdings in the firm.

Agency theory states that less concentrated ownership may have incentives for the managers to manipulate the financial numbers for their personal benefit in order to get more earning-based bonuses and less pressure from other shareholders. Past studies have shown that concentrated or block ownership can increase the monitoring effectiveness of the board (Shleifer & Vishny, 1997). Tijjani and Dabor (2010) suggest that increased ownership concentration provides large shareholders with sufficient incentives to monitor managers. Cohen, et al. (2002) empirically support this view by finding that large equity holders have incentives to bear the fixed costs of collecting information and to engage in monitoring management. Therefore, the presence of

shareholders owning a large block of shares in a company provides an additional monitoring mechanism that may deter opportunistic earnings management.

This study focus on the importance of corporate governance variables of board size, board composition, audit committee size and ownership concentration because there are documented evidences that these variables possessed significant impact on earnings management Dabo and Adeyemi (2009). Their impact on earnings management shows some specific patterns regarding the extent and scope of earnings management which are of interest to investors and researchers.

### **2.3 Earnings Management**

The term as generally understood refers to systematic misrepresentation of the true income and assets of corporations or other organizations (Park & Shin, 2003). Though, Hassan and Ahmed, (2012), declared that the accounting profession has accepted that not all earnings management techniques are deceptive. Park and Shin, (2003), notes further that earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either give the wrong impression to some stakeholders about the underlying economic performance of a company or influence contractual outcomes that depend on reported accounting numbers. Earnings management usually involves the artificial increase (or decrease) of revenues, profits, or earnings per share figures through destructive accounting tactics. Aggressive earnings management is a form of fraud and differs from reporting error. Drivers for such behavior include market expectations, personal realization of a bonus, and maintenance of position within a market sector.

In earnings management, accounting choices are made to reflect either increased or decreased income. For example, in certain instances, stockholders and managers may agree that earnings

management is desirable and choose to apply income-decreasing accounting choices to avoid incurring regulatory or political costs (Peasnell, Pope, & Young, 2005). On the other hand, when the interests of shareholders and managers diverge, this gives rise to moral hazard. Okike, (2002) notes that agency theory is an important construct in understanding financial reporting incentives. Agency theory holds that, in the presence of information asymmetries, managers will choose to make a set of decisions that maximize their usefulness.

Healy and Wahlen (1999) stated that earnings management occurs when managers use judgment in financial reporting in structuring transactions to alter financial reports, to either mislead some stakeholders about the underlying economic performance of the company, or to influence contractual outcomes that depend on reported accounting. According to Schipper (1989), earnings management is the process of taking deliberate steps within the constraints of Generally Accepted Accounting Principles (GAAP) to bring about a desired level of reported income. Earnings management is an intentional structuring of reporting or production/investment decisions around the bottom line impact (Park & Shin, 2003). As Schipper (1989) notes, earnings management includes accrual-based and real earnings management, such as changes in accounting principles and estimates, investments, and financing decisions.

Opportunistic earnings management is undertaken for various motives. For instance, Burgstahler and Eames (2003) suggest that it is undertaken with the intention of either misleading financial statement users or for the purpose of biasing contractual outcomes that depend on accounting earnings. Managers also use opportunistic earnings to meet analyst forecasts and raise funds on favourable terms (Schipper & Vincent, 2003). Some firms also use opportunistic earnings management to avoid violating earnings based debt covenants (DeFond &

Jiambalvo, 1994). Managers also alter earnings using discretionary accrual accounting choices to mask (disguise) poor firm performance in order to safeguard themselves from possible dismissal (Hashem et al. 2012).

Income smoothing is the process of manipulating the time profile of earnings report to make the reported income stream less variable ( Kao & Chen, 2004). There are respective benefits and costs associated with accrual manipulation and real decision manipulation. For accrual manipulation, the benefit is that accruals are not easy to detect and there is flexibility in manipulating accruals. The cost is that accruals will reverse in the following period, perhaps even one hundred percent, and there may not be enough accruals to manipulate.

Creative accounting is the transformation of financial accounting figures from what they actually are to what preparers desire by taking advantage of the existing rules and or ignoring some or all of them (Uadiale , 2012). For the purpose of this study the last definition given by Uadiale (2012) will be adopted which is considered the most suitable for the research having described the dimension of our study on the possibilities and incidence of Earnings management in corporations.

## **2.4 International Financial Reporting Standard**

International Financial Reporting Standard (IFRS) is a global GAAP, setting principles-based and globally accepted standard published by the IASB to support those who adopted in the preparation and presentation a high quality, transparent and comparable financial statements that will aid easy interpretation (Okpala, 2012) The global convergence of accounting standards has attracted much attention in the academic and professional accounting literature (Budrina, 2014). Recently there has been a push towards the adoption of IFRS developed and issued by the

International Accounting Standards Board (IASB). The increasing growth in international trade, cross border financial transactions and investments which involves the preparation and presentation of accounting reports that is useful across various national borders, has brought about the adoption of IFRS by both the developed and developing countries (Armstrong et al 2007). The process of adoption received a significant boost in 2002 when the European Union adopted a regulation 1606/2002 requiring all public companies in the territory to convert to IFRSs beginning in 2005 (Iyoha & Faboyede, 2011).

Following the changes in accounting standards around the world, Nigeria companies have been mandated to comply with IFRS starting from 2012. IFRS implementation Nigeria started on 28 July 2010, when the Nigerian Federal Executive Council (FEC) approved January 2012 as the effective date for the convergence of Nigeria Generally Accepted Accounting Practices (NGAAPs) to International Financial Reporting Standards (IFRS). In addition, the FEC ordered the Nigerian Accounting Standard Board (NASB) to take further necessary action to give effect to councils' decision (Madawaki, 2014).

According to Barth (2007), the adoption of a common body of international standards is expected to have the following benefits: lower the cost of financial information processing and auditing to capital market participants as users, familiarity with one common set of international accounting standards instead of various local accounting standards by Accountants and Auditors of financial reports, comparability and uniformity of financial statements among companies and countries making the work of investment analysts easy, attraction of foreign investors in addition to general capital market liberalization. Ball (2006) stated that many developing countries where the quality of local governance institutions is low, the decision to adopt IFRS will be beneficial.

From the foregoing, it is glaring that to operate in the modern day world economy and to realize the full gains of international listing; no individual country can act alone in its financial reporting standards. In recent times, a number of Nigerian companies (especially financial institutions) had raised capital from international stock markets while others established significant presence in other parts of the world (Burgstahler, Hail & Eames, 2003).

## **2.5 Empirical Studies Review: Board Size and Earnings Management**

The number of directors on board is another important variable, though literature does not have a consensus on the influence of board size towards increasing its effectiveness in curbing earnings Management. Empirical research has acknowledged that board size may be related to firm Performance (Gulzar, 2011). Some studies report a positive association between earnings management and board size due to lag in decision making due to lack of consensus (Goodstein et al. 1999, Cheng & Warfield, **2005**). Cohen et al. (2002), Xie, Wallace and Davidson (2003), Peasnell, Pope and Young (2000) argue for a larger board as being able to better monitor the management and reduce incentives for managing earnings thereby positing a negative relation with bigger boards associated with lower earnings management. Ebrahim, (2007) report no association. The board size of four to six members might be more effective since they are able to make effective communication and well timely strategic decisions (Jensen (1993), Kao and Chen (2004), Bugshan (2005)). Some authors found a positive association between board size and earnings management (Farber, 2005, Ahmad & Tukur. 2005), and others find a negative relation (Farinha 2002, Xie et al, 2003) or even no relation (Bradbury, Mark & Tan, 2006).

Erena and Tehulu (2012) examined the impact of Corporate Governance mechanisms on Earnings Management in Ethiopia through discretionary loss provision, using panel data of ten



banks for the period 2006 to 2010. Ten banks out of the fifteen operating in the country were judgmentally selected. Data collected were analyzed using the generalized Least Squares (GLS) regression model. The results show that board size is positively and significantly associated with discretionary loan loss. This indicate that large board size is related to high discretionary loan loss or Earnings Management and that optimum board is more efficient with decision-making and better monitor Earnings Management than large board.

Hassan and Ahmed (2012) examined the relationship between Corporate Governance, Earnings Management and financial performance in the Nigerian Manufacturing industry. Secondary data were extracted from the annual reports of 25 manufacturing firms listed on the Nigerian Stock Exchange for the period 2008 to 2010 and univariate OLS multiple regression was used as a tool for analysis. The study documents that Corporate Governance has significant impact on both the adjusted and unadjusted firm performance in different magnitudes and directions. Specifically, board Size is inversely related with true performance while a positive interaction emerges between executive compensation and firm performance regardless of the performance specification.

### **2.5.1 Audit Committee Size and Earnings Management**

An audit committee is an operating committee of the Board of Directors charged with oversight of financial reporting and disclosure. Committee members are drawn from members of the company's board of directors, with a Chairperson selected from among the committee members. The Companies and Allied Matters Act (CAMA), 1990 states that a public limited liability company should have an audit committee (maximum of six members of equal representation of three members each representing the management/ directors and shareholders) in place. The

members are expected to be conversant with basic financial statements. The audit committee's function has evolved over the years. The primary objective of an Audit Committee is to increase the credibility of annual financial statements, assist directors in meeting their responsibilities and enhance audit independence (Bradbury 1990).

Audit Committees have been involved in monitoring and protecting the interests of shareholders (Klein, 2002; Alzoubi & Selamat, 2012; Soliman & Ragab, 2014). Researchers have also argued that corporate practices are reduced, hence earnings management is tided where an audit committee exists (Cohen, Krishnamoorthy & Wright, 2002; Hossain & Adams, 1995). Due to their responsibility for oversight of internal control and financial reporting, good governance dictates that audit committee members should possess a certain level of financial competencies.

Thus, the Blue Ribbon Committee (1999) recommended that each member of the audit committee should be or become financially literate and that at least one member should have accounting or related financial management expertise, where 'experience' is defined as 'past employment experience in finance or accounting, requisite professional certification in accounting, or any other comparable experience or background which results in the individual's financial sophistication, including being or having been a chief executive officer (CEO) or other senior officer with financial oversight responsibilities'. This recommendation is supported by DeZoort & Salterio (2001). They observe that the accounting experience of audit committee members as well as their knowledge of auditing is positively associated with the likelihood that they will support the auditor in an auditor-corporate management dispute. The audit committee has a very important role to play regarding fraud and overseeing fraud risk management. In this

regard, audit committees play an important role in preventing, detecting and investigating fraud and earnings management.

The results of studies on the relationship between audit committee and earnings management are inconclusive. Xie et al (2001) investigated the roles of the board and audit committee on earnings management. Using a sample of 282 firm-year observations from the S&P 500 index of each year of 1992, 1994 and 1996, they find that active committee of experienced members, that is members with some financial expertise and/or corporate background is associated with reduced level of discretionary accruals. The disparity in governance structures and regulatory frameworks call for an investigation of similar phenomenon in the Nigerian context. Also, Chtourou, Bedard and Courteau (2001) investigate the impact of corporate governance on earnings management in U.S. firms. Using a sample drawn from the population of U.S. firms, they find that financial expertise, independent directors and active committee (proxied by board meetings) are inversely related with discretionary accruals. The study uses chi-square as a tool for data analysis, which is a less effective tool for establishing cause and effect relationship.

Finally, if audit committee serves as an effective mechanism in monitoring managers as noted by Klein (2002), it is therefore predicted that it should be inversely related with earnings manipulation.

### **2.5.2 Ownership Concentration and Earnings Management**

Ownership Concentration (also known as block holders), refers to the proportion of shares held by certain number of shareholders, usually above 5%. It is an endogenous governance mechanism that accords the shareholders more latitude to control management behavior and decision (Sanda et al, 2005; Farooq & El Jai, 2012). Past studies have shown that concentrated

or block ownership can increase the monitoring effectiveness of the board (Shleifer & Vishny, 1997). The argument that usually supports this is that the largest shareholders have more incentive to monitor and discipline managers because monitoring cost is less than the expected benefits from their large investments (Klein, 2002; Schleiffer & Vishney, 1986). If this argument worth our consideration, we expect an inverse relationship between ownership concentration and discretionary accruals. On the other hand, the concentrated ownership may be ineffective in prompting insiders to make valuable decisions in their own interest, which may result in increase discretionary accruals (Cornett, Marcus, & Tehrnanian, 2006). However, Farooq and El Jai (2012) observed that ownership concentration can either have an alignment effect which reduces manager's opportunistic behavior or have an entrenchment effect which increases earnings manipulation. To support this observation, previous studies of the relationship between ownership concentration and earnings management have revealed inconclusive findings.

With a sample of 196 firms listed on Tehran Stock exchange for the period between 2004 and 2008, Roodposhti and Chashmi (2011) find a negative relationship between ownership concentration and earnings manipulation. Further, using a sample of all 104 non-financial firms listed on Casablanca Stock Exchange between 2004 and 2007, Farooq and El Jai (2012) fail to establish a significant association between ownership concentration and discretionary accruals. Kob (2003), Bowen, Rajgopal and Venkatachalam (2008), Davidson, Jiraporn, Kim and Nemeč, (2004) and Sánchez-Ballesta and García-Meca (2007) found no significant association between concentrated ownership and earnings management.

In converse, large number of shareholders may improve corporate governance in that the managers can align with the interest of shareholders (the alignment effect). In contrast, given more concentrated holding by fewer shareholders, it is more likely that managers will act

contrarily to the interest of shareholders (entrenchment effects). Therefore, more diversified holdings are more likely to compel managers' incentive to manage earnings.

### **2.5.3 Firm Size and Earnings Management**

Firm Size is used in this study to control for the likely impact of firm size on the discretionary accruals of the sample firms. It is defined as the nature log (ln) of total asset. It is argued that the larger the firm size the higher the expected agency problem that the firm is likely to experience. Also, given the fact that large firms have more resources and earn higher profit, Gulzar and Wang (2011) note that they are more likely to avoid managing earnings through discretionary accruals. Quite a number of studies control for firm size including Zhou, Xiong, and Ganguli, (2010) and Shehu and Aitimou (2017). Generally, large firms tend to have a high proportion of outside ownership and also tend to separate between ownership and management. Based on an agency theory, these firms need a strong internal control system to supervise management performance, suggesting that management would have difficulties in managing earnings. Therefore, an association between firm size and the level of earnings management is negative. Many studies (Sun & Rath, 2009; Swastika, 2013) empirically confirmed this significantly negative association

Shen, and Chih (2005) detected that large firms are prone to conduct smoothing, but good corporate governance can mitigate the effect on average. The study also observed that a highly leveraged firm with poor governance is prone to be scrutinised closely and thus finds it harder to deceive the market by manipulating earnings. Naz, Bhatti, Ghafoor, and Khan, (2011) investigated the impact of firm size on earnings management and find no statistical significance between firm size and earnings management in Pakistan. Sun and Rath (2009) analyzed the activities of earning management in Australia by analyzing a sample of 4844 firms for the period

2000 to 2006. The result indicates that small companies indulge more in earning management. The study of Burgstahler and Dichev (1997), show that, both small and large sized firms manage earnings to circumvent the small anegative or small decrease in earnings.

#### **2.5.4 Leverage and Earnings Management**

Financial Leverage (Debt Equity Ratio) indicates the proportion of the use of debt to finance investment. The greater the debt of the company, the greater the risk faced by investors so that investors will ask the higher profit levels. Prior literature on corporate leverage suggests that leverage is one of the key determinants of earnings management because of the role it play in mitigating intentional and unintentional misstatements (Wang & Campbell, 2012). Therefore, the ability of the leverage to mitigate misstatements is a function of the company's management decision.

It is generally acknowledged that leverage is broadly segmented into at least two categories: operating leverage and financing leverage. Operating leverage refers to the percentage of fixed costs that a company has. Stated another way, operating leverage is the ratio of fixed costs to variable costs. If a business firm has a lot of fixed costs as compared to variable costs, then the firm is said to have high operating leverage. On the other hand, financial leverage is the amount of debt in the capital structure of the business firm (Gulzar & Wang, 2011). Financial leverage determines how the firm will pay for it or how the operation will be financed. The use of financial leverage, or debt, in financing a firm's operations, can really improve the firm's return on equity and earnings per share. This is because the firm is not diluting the owner's earnings by using equity financing. Too much financial leverage, however, can lead to the risk of default and bankruptcy. Empirical evidence suggest that leverage is correlated with earnings management,

thus high levered firm have significantly lower discretionary accruals than low leverage firms (Jinghui, 2012 and Musa, 2014). In other words, lower levered firms have lower earnings management. This is because leverage influences the top half of the income statement and operating income, determining return from operations and thus, influences the bottom half of the income statement and the earnings per share to the stockholders.

### **2.5.5 IFRS and Earnings Management**

The mandatory transition to IFRS should ensure greater transparency of financial statements and thus, restrict the possibilities of earnings management in companies. Relevant literature that analyzes the impact of IFRS adoption on earnings management shows mixed results. Focusing on a sample of companies from 15 EU countries to investigate the effect of IFRS on accounting quality, the study of Chen et al (2010) reveals that the majority of accounting quality indicators is improved after IFRS adoption in the 15 EU states. Specifically, firms exhibit fewer incidences of managing earnings toward a target, a lower magnitude of absolute discretionary accruals, and higher accruals quality.

Furthermore, Callao and Jarne (2010) examine the effect of mandatory adoption of IFRS on earnings management by using 1,408 non-financial firms listed on the stock markets in 11 EU member states. Their results show that earnings management has intensified since the adoption of IFRS in Europe, as discretionary accruals have increased in the period following implementation. In addition, the study of Iatridis (2010) on a sample of 241 UK companies reveals that the application of IFRS reduces the scope of earnings management.

Zeghal, Chtourou and MnifSellami (2011) examine whether mandatory adoption of IFRS, by French companies is associated with lower earnings management. The final sample consists of

353 French listed groups for the period extending from 2003 to 2006. The results show that mandatory adoption of IFRS is associated with a reduction in the earnings management level, as measured by the magnitude of discretionary accruals.

Chua, Cheong and Gould (2012) focus on the Australian context. Their final sample consists of 172 Australian listed firms for a period of four years. Their findings indicate that Australian companies present less earnings management by way of income smoothing following the mandatory adoption of IFRS, and therefore, a higher accounting quality. Zeghal et al (2011) use a sample of 1547 companies from 15 EU countries between 2002 and 2007 to analyze whether the mandatory adoption of IFRS is associated with higher earnings quality. The results show that the mandatory adoption of IFRS is associated with less earnings smoothing, less managing toward a target, a decrease in absolute discretionary accruals and an increase in accruals quality, implying a higher earnings quality.

Ismail, Kamarudin, Zijl, and Dunstan (2013) are interested in the effect of mandatory adoption of IFRS on earnings management in Malaysia. Their study is based on a large sample that comprises 4010 firm-year observations. The findings confirm that IFRS adoption is associated with higher quality of reported earnings. Specifically, they found that earnings reported during the period after the adoption of IFRS is associated with lower earnings management. Bryce, Jahangir and Mather (2015) examined whether accounting quality has improved following adoption of IFRS by 200 Australian firms listed on the ASX for the period extending from 2003 to 2008. The results show that accounting quality is not significantly enhanced subsequent to the adoption of IFRS in Australia. Indeed, the authors find that both measures of accounting quality,



namely discretionary accruals and accruals quality are reported to be stable under AGAAP and IFRS.

Results of empirical works in this area are mixed and imprecise such that, no single direction on whether IFRS is sufficient to override managers' incentives to engage in earnings management. This is indicative of the need for further empirical exploration on the Impact of IFRS on earnings management which is of interest to standard setters, regulators and academia. On these grounds, adoption and subsequent application of IFRS offers a wide opportunity for researchers to investigate and document whether the principle based accounting standards affect degree of earning management uniformly around the world. This is where we, drive the motivation for this present empirical literature based study.

## **2.6 Theoretical Framework**

There exist many theories that underpins corporate governance and earnings management which includes: the agency theory, stakeholder theory and stewardship theory. We discuss each of these theories and relate it to the study.

### **2.6.1 Agency Theory**

Agency theory having its roots in economic theory was expounded by Alchian & Demsetz (1972) and further developed by Jensen & Meckling (1976). Agency theory is simply the relationship between the principal and the agent such as shareholders and the company executives or managers. In this theory, shareholders who are the owners or principals of the company, hires the agents to perform work. The firm board composition, board size, audit committee and ownership concentration represent corporate governance variables which could have an effect on earnings management as represented by agency theory which better explained agency problems arising from the separation of ownership and control. It provides a useful way

of explaining relationships where the parties' interests are at odds and can be brought more into alignment through proper monitoring and a well-planned compensation system. Daily, Dalton and Canella (2003) highlighted two factors that influence the prominence of agency theory. Firstly, the theory is a conceptually simple one that reduces the corporation to two participants, managers and shareholders. Secondly, the notion of human beings as self-interested is a generally accepted idea. In an assessment and review of agency theory, Eisenhardt (1989) outlines two streams of agency theory that have developed over time: Principal-agent and positivist. Positivist researchers have tended to focus on identifying circumstances in which the principal and agent are likely to have conflicting goals and then describe the governance mechanisms that limit the agent's self-serving behavior. This stream has focused almost exclusively on the principal-agent relationship existing at the level of the firm between shareholders and managers.

The creation of the agency problem results from the separation of ownership and control. As managers have more inside information than the financial providers, these financial providers face agency costs to monitor managers' behavior. The managers might pursue their self-interests to maximize their own wealth, perhaps at the expense of other parties' wealth and interests (Jensen, 1986). The contract setting may not be enough to resolve the problem of managers acting in conflict with the interests of financial providers. Furthermore, contracts between managers and financial providers may require the managers to disclose accounting information in order for the financial providers to monitor their financial providers' interests and wealth. However, this information is provided by the managers (Watts and Zimmerman, 1986), who may choose to overstate the numbers in the financial statements through their accounting estimates and standards.

Corporate governance would reduce the agency problem between financial providers and managers and increase the efficiency of contracts (Gompers, Ishii & Metrick, 2003). Even in firms in developed countries, this agency problem can be a source of larger costs for shareholders. Jensen and Meckling (1976) define agency costs as sum of the monitoring expenses such as vote in general meetings and litigation cost to sue managers' wrongdoing by shareholders, the bonding expenditures such as disclosure of annual reports and forego powers by managers, and the residual loss that generated by delegation of powers to managers. Thus, corporate governance would reduce then agency costs of different parties to the firm. In commonwealth countries, the primary ways to protect shareholders, including minority shareholders, are the legal system (i.e., corporate laws, SEC rules and regulations, corporate bylaws, and charters) and market takeover force. Another way to protect shareholders is through internal corporate governance mechanisms including board size, board composition, audit committee and ownership concentration. This work only focuses on the perspective of how these corporate governance mechanisms influences earnings management. One of the reasons is that earnings management can influence shareholders by using financial information to make decisions. More importantly, earnings management can also affect the credibility of financial information, which can lead to major financial scandals (e.g., Enron, World.com), and the capital market may crash. Furthermore, it can also help standard-setters from emerging countries protect shareholders' interests by using experience from western countries.

Considering the objective of the study which is to examine the impact of corporate governance on earnings management of healthcare companies, the agency theory was adopted being the best theory that explained the study.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter provides details on the research design, methodology adopted, population of the study, sources and methods through which the data are collected. We also explained techniques used in the analysis and justified the methods and techniques used. The variable measurement and model specification were explained in the chapter.

#### **3.2 Research Design**

Correlational research design was adopted for the study. The design is considered appropriate in that it is better in determining the relationship and degree of corporate governance influence on earnings management in our study which may permit prediction. Data for the study was collected from the annual report and accounts of companies in the healthcare companies that are quoted on the floor of the Nigeria Stock Exchange. The design is believed to be adequate and appropriately measure the impact of CG on EM of listed healthcare companies in Nigeria.

#### **3.3 Population, Sample size, and sampling technique**

The population consists of all the healthcare firms listed on the first-tier market of the Nigerian Stock Exchange as at 31st December 2016. There are 10 healthcare firms listed and the whole working population was taken for the study in view of the fact that the population is small and the data for the study are readily available from the Nigerian Stock Exchange, as well as, from the official websites of the healthcare firms. The census sampling technique in which all the elements of the population are considered was used as sampling technique.

### **3.4 Source and Methods of Data Collection**

The nature of this study necessitated the use of secondary data which was extracted from the published audited annual reports and accounts of those firms and the Fact Book of the Nigeria Stock Exchange

### **3.5 Data Analysis Techniques**

A panel data multiple regression techniques was employed as our tools of analysis. The use of panel data regression methodology in this study is premised on the fact that the data to be gathered is subject to time and cross sectional feature as it minimizes the bias that might result from aggregation of individual units into broad aggregates. This is because the data are made available for several units in a panel data setting, and it account for individual heterogeneity of the sample firms.

The estimation results would be evaluated based on individual statistical significance test (t-test) and overall statistical significance test (F-test). In this study, descriptive statistics and correlation analysis were conducted to properly describe the nature of our data.

### **3.6 Variable Measurement and Model Specification**

There are two sets of variables covered by this study; specifically dependent and the explanatory variables. The dependent variable is earnings management using discretionary accruals as a proxy. The explanatory variables include the independent and control variables. Corporate governance is the independent variable. Board size, audit committee size and ownership concentration are the most famous and most frequently used proxies of corporate governance. Thus, they were adopted in this study in determining the corporate governance mechanisms. The

control variables included in the model are firm size and leverage. The study further employed IFRS as moderating variable.

### 3.6.1 Measuring Earnings Management

In the study, we used accounting accruals to measure earnings management: this is because accruals include wide range of earnings management techniques available to managers when preparing financial statement as cited in Abd-Nasser (2012). In order to get the estimate for discretionary accruals, the modified Jones model is adopted, which is illustrated below:

$$DACC_{it} = TACC_{it} / TA_{it-1} - [\alpha_1 (1/TA_{it-1}) + \alpha_2 [(\Delta REV_{it} - REC_{it}) / TA_{it-1}] + \alpha (PPE_{it} / TA_{it-1})]$$

Where  $DACC_{it}$  = is discretionary accruals of firm i at time t

$TACC_{it}$  = is total accruals of firm i at time t

Where  $TACC = EARN - CFO$

$TA_{it-t}$  = is the book value of total assets of firm i at the end of year t-1,

$\Delta REV_{it} / TA_{it-1}$  = is sales revenue of firm i in year t less revenues in year t-i scaled by  $TA_{it-1}$

$\Delta REC_{it} / TA_{it-1}$  = is receivables of firm in year t less receivables in year t-I scaled by  $TA_{it-1}$

$PPE_{it} / TA_{it-1}$  = is gross property, plant and equipment of firm i at the end of year t scaled by

$TA_{it-1}$  and  $e_{it}$  = is the residual of error term.

The study make use of the absolute measure of discretionary accruals as a proxy for the extent of opportunistic earnings management.

$$EM_{it} = \alpha + \beta_1 BS_{it} + \beta_2 ACS_{it} + \beta_3 OC_{it} + \beta_4 BS * IFRS_{it} + \beta_5 ACS * IFRS_{it} + \beta_6 OC * IFRS_{it} + \beta_7 FS_{it} + \beta_8 LEV_{it} + \mu_{it}$$

### 3.6.2 Variable Measurement

The measurement of the dependent and explanatory variables is provided in table below:

**Table 3.1**

<b>Variables</b>	<b>Variables Description</b>	<b>Variables measurement</b>
<b>Dependent Variable:</b>		
<b>EM</b>	<b>Earnings management</b>	Discretionary accruals based on Modified Jones Model by Dechow (1995).
<b>Explanatory Variables</b>		
<b>BS</b>	<b>Board size</b>	Measured as the Total no of board members in the organization
<b>ACS</b>	<b>Audit Committee Size</b>	Is the total number of audit committee members
<b>OC</b>	<b>Ownership Concentration</b>	Is the proportion of shares held by certain number of block holders, exceeding 5%.
<b>FSize</b>	<b>Firm Size</b>	Natural Log. of Total Assets
<b>LEV</b>	<b>Financial Leverage</b>	Measured as the ratio of total debts to total assets
<b>IFRS</b>	<b>International Financial Reporting Standard</b>	Measured as dummy variable which is equal to “1” if a company uses IFRS between 2009 to 2016, “0” otherwise. This approach of using dummy variable was adopted from the recent work of Napaporn and Siriluck (2014)
<b>BS*IFRS</b>	Interaction effect between Board size and IFRS adoption Napaporn and Siriluck(2014)	Measured as the ratio of an interaction term connecting board size and IFRS
<b>ACS*IFRS</b>	Interaction effect between Audit committee size and IFRS Napaporn and Siriluck(2014)	Measured as ratio of an interaction term connecting audit committee size and IFRS
<b>OC*IFRS</b>	Interaction effect between Ownership concentration and IFRS Napaporn and Siriluck(2014)	Measured as ratio of an interaction term connecting ownership concentration and IFRS

**Source: Compiled by the author from various literatures**

### 3.7 Model Specification

Model of the study which will be used in testing of the hypotheses is presented thus:

$$EM = F (BS, ACS, OC, BS*IFRS, ACS*IFRS, OC*IFRS, IFRS)$$

Transforming the above function to linear equation gives:

$$EM_{it} = \alpha + \beta_1 BS_{it} + \beta_2 ACS_{it} + \beta_3 OC_{it} + \beta_4 BS*IFRS_{it} + \beta_5 ACS*IFRS_{it} + \beta_6 OC*IFRS_{it} + \beta_7 FS_{it} + \beta_8 LEV_{it} + \mu_{it}$$

Where:

**EM** = Earnings Management

**$\alpha$**  = Intercept

**$\beta_1 - \beta_5$**  = Slope Coefficient\

**BS** = Board size

**ACS** = Audit Committee Size

**OC** = Ownership Concentration

**BS\*IFRS** = Board size interaction with IFRS

**ACS\*IFRS** = Audit Committee Size interaction with IFRS

**OC\*IFRS** = Ownership Concentration interaction with IFRS

**IFRS** = International Financial Reporting Standard

### 3.8 Robustness Test of independent and dependent variables

In order to ascertain the validity of statistical inferences of the study, this section present the result of the robustness test conducted. The robustness tests conducted includes:



**I Multicollinearity Test:** This was conducted to check whether there is a higher correlation between independent and dependent variables which will mislead the result of the study. Table 4.3 presents the matrix of linear relationships among independent and dependent variables and between moderating variable and the independent variables. In order to prove and further substantiate the absence of harmful multicollinearity between the independent variables, colinearity and diagnostics test are carried out as the tolerance values and variance inflation factor (V.I.F) values show absence of multicollinearity in the data.

**ii. Heteroscedasticity Test:** Breusch-Pagan/Cook-Weisberg is used to test the null hypothesis, the error variances are all equal versus the alternative that the error variances are a multiplicative function of one or more variables (Breusch&Pagan, 1979). The alternative hypothesis states that the error variances increase or decrease as the predicted values of Y increase. That is the bigger the predicted value of Y, the bigger the error variance will be. A large chi-square would indicate that heteroscedasticity was present.

**iii. Hausman Test:** As opined by Farinha(2002) that in order to decide between Fixed effect model output and Random effect output which is the best, researchers often rely on the Hausman (1978) specification test. The Hausman test is designed to detect the violation of the random effects modeling assumption that the explanatory variables are orthogonal to the unit effects. If there is no correlation between the independent variables and the unit effects then estimates of  $\beta$  in the fixed effects model should be similar to estimates of  $\beta$  in the random effect model. The Hausman test statistic H is a measure of the difference between the two estimates under the null hypothesis of orthogonality, H is distributed chi-square with degree of freedom equal to the number of independent variables in the model. A findings that  $p < 0.05$  is taken as evidence that,

at conventional level of significance, the two models are different enough to reject the null hypothesis, and hence to reject the random effect model in favor of the fixed effect model. If the Hausman test does not indicate significant difference ( $p > 0.05$ ), however, it does not necessarily follow that the random effects estimator is "safely" free from bias, and therefore to be preferred over the fixed effects estimator.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND DISCUSSION

#### 4.1 Introduction

This chapter presents the robustness test carried-out and then followed by the descriptive statistics, correlation and regression results of the study. Various robustness tests were conducted for the purpose of ensuring that the sampled data meets the assumptions of the regression analysis. The chapter starts with the preliminary analysis of the sample and ends by discussing the results of the study, key findings and policy implication of the findings.

#### 4.2 Descriptive Statistics

The descriptive statistics is presented in Table 4.1 below. The calculated minimum, maximum, mean, standard deviation, skewness and kurtosis of the data for the variables used in the study are presented.

**Table 4.1 Summary of Descriptive Statistics**

Variable	Min	Max	Mean	Std.	Skewness	Kurtosis
EM	20.08	42.87	31.45	5.19	0.08	0.31
BS	6	14	9.96	1.83	0.23	0.02
ACS	4	7	5.66	0.84	0.00	0.38
OC	0.37	0.60	0.46	0.89	0.26	0.00
IFRS	0.03	0.98	0.6	0.63	0.02	0.00

Source: Researchers compilation, using Stata 13.

Table 4.1 presents detailed descriptive statistic for both dependent and the independent variables of the study. From the above table, it appears that the minimum level of EM among listed Healthcare firms in Nigeria is 20%. This implies that there are firms with average level of EM practice among Healthcare firms in Nigeria. However, company with the highest possibility of earnings manipulation has about 42.87%, while the average in the sector is 31.44% implying that, Healthcare firms in Nigeria are in line with the theoretical proposition of Healy (1985) and the empirical work of Uwuigbe and Jimoh (2009) that Healthcare firms in Nigeria tend to overstate earnings as a result of beating or meeting the analyst forecasts.

Furthermore, the table above shows a detail account of the descriptive statistics for the dependent variables where, BS is use to represents Board Size, ACS is use to represents Audit Committee Size, OC is use to represents Ownership Concentration, FS is use to represents Firm Size (Control Variables) and IFRS is use to represents the Moderating effect of International Financial Reporting Standard. The descriptive statistics result in table 4.1 above further shows that Board Size has an average mean value of 9.9625 with a minimum value of 6 and a maximum value of 14. This clearly shows that, earnings management practice in Nigerian Healthcare firms increases despite the larger size of board implying that small board size are more capable to reduce earnings manipulations in the firms as a result of efficiency attached to a smaller number where larger size leads to redundancy and reluctance. Similarly, ACS revealed an average value of 5.66 this value ranges from a minimum of 4 to a maximum of 7 signifying how Nigerian Healthcare firms engage low level of earnings management in their activities as a result of strict monitoring by the audit committee size. This shows how larger audit committee curtails earnings manipulation due to adherence to audit principles. Ownership Concentration has a mean value of 46% with a minimum value of 37% and maximum value of 60% implying that

Ownership Concentration reduces earnings manipulation in the Nigerian healthcare firms. The moderating effect of IFRS has an average value of 62% with a minimum value of 30% and a maximum value of 98%. This shows the multiplicative effect of the moderating variable among Nigerian healthcare firms also indicates that about 62% of sampled healthcare firms complied with IFRS during the period under consideration.

Furthermore, from the skewness and kurtosis which test for normality or the existence of outliers or extreme values among the variables shows that all the variables are normally distributed. This means that the data collected were free from outlier bias and are reliable for drawing generalization. The full result of the test is attached as appendix.

#### **4.3 Correlation Matrix**

Table 4.3 shows the correlation values between independent and dependent variables and among independent variables themselves. The values are gotten from the Spearman correlation of two-tailed significance. It shows the correlation matrix with the top values showing the Spearman correlation coefficient among all variables and the asterisk (\*) beside the Spearman correlation coefficient showing the two-tailed significance of these coefficients. A look at the pattern of the correlation among independent and dependent variables shows that none of the explanatory variables is approaching 0.8 or greater.

**Table 4.3 summary of Correlation Matrix**

---

	EM	BS	ACS	OC	IFRS	FS	LEV
<b>EM</b>	1.0000						
<b>BS</b>	-0.1115	1.0000					
<b>ACS</b>	-0.4185*	0.0742	1.0000				
<b>OC</b>	0.3056*	-0.0429	-0.4621*	1.0000			
<b>IFRS</b>	0.0313	0.1870	-0.1051	0.2501*	1.0000		
<b>FS</b>	-0.5663*	-0.0966	0.0960	-0.0095	0.0886	1.0000	
<b>LEV</b>	-0.0008	-0.0639	-0.0579	-0.3137*	-0.1627	0.0032	1.0000

---

**Source: Researchers compilation, using Stata 13.**

\*. Correlation is significant at 10% level (2-tailed)

\*\*. Correlation is significant at 5% level (2-tailed)

\*\*\*. Correlation is significant at 1% level (2-tailed)

Results on the correlation matrix for the sampled firms indicate, that earnings management is 11% negatively correlated with board size. Audit Committee Size has 41% negative and significant correlation with earnings management. This suggests that the size of audit committee reduces the tendency of listed healthcare firms in Nigeria to engage in earnings management. Ownership concentration appear to have positive correlation with Earnings Management as it shows a positive and significant correlation coefficient value of 30%. IFRS is weakly and positively correlated with earnings management of Nigerian listed healthcare firms up to 3%. It implied that IFRS adoption and earnings managements move in the same direction.

On the contrary, the table shows a significant negative correlation between firm size and earnings management. Leverage is negatively and weakly correlated with earnings management practices. It means that high leveraged firms have incentives to manipulate earnings, most probably to meet capital market expectation.

However, the correlation matrix further revealed that no two explanatory variables were perfectly correlated. This means that there is the absence of multicollinearity problem in our model. Multicollinearity between explanatory variables may result to wrong signs or doubtful magnitudes in the estimated model coefficients, and the bias of the standard errors of the coefficients. This shows that appropriateness of fitting the study model with three independent variables and the interacting variable in order to see its moderating impact on earnings management of listed healthcare firms in Nigeria.

#### **4.4 Presentation and Interpretation of Regression Result**

This section presents the result of the dependent variable (EM) and the independent variables of the study (Board Size, Audit Committee Size, Ownership Concentration, BS\*IFRS, ACS\*IFRS and OC\*IFRS). The presentation follows with the analysis of the association between the dependent variable and each individual independent variable. Baron and Kenny (1986) opines that the rule in using moderating variable is to estimate two separate sets of variables, the first without the interacting variable, while the second has the interacting variables inclusive in it. The two set variables would then be compared with one another by observing their coefficients, t-statistics and p-values. Changes in sign and sizes of the coefficient of the two results illustrates whether or not the moderator variable has an effect on the dependent variable. Where these parameters show a significant difference between the two set variables, the inclusion of the moderator is said to be relevant and the hypothesis would be considered for analysis, otherwise it

would be discarded. The summary of the regression results presented from the model of the study comprising of both the main and the effector variable is presented in table 4.4.1 and 4.4.2 while the full result is attached as appendix.

$$EM_{it} = \alpha + \beta_1 BS_{it} + \beta_2 ACS_{it} + \beta_3 OC_{it} + \beta_4 BS*IFRS_{it} + \beta_5 ACS*IFRS_{it} + \beta_6 OC*IFRS_{it} + \beta_7 FS_{it} + \beta_8 LEV_{it} + \mu_{it}$$

**Table 4.4.1 Summary of Regression Result Robust**

Variables	Coefficient	Std. Error	t-Statistic	P-Values	(95% Cof.)	Interval
Constant	94.51253	11.82311	7.99	0.000	70.93209	118.093
BS	-1.218798	0.5480982	-2.22	0.029	-2.311946	-0.12565
ACS	-2.091106	0.6785576	-3.08	0.003	-3.444447	-0.73776
OC	29.90954	9.578214	3.12	0.003	10.80639	49.01269
BS*IFRS	1.753936	0.7916231	2.22	0.030	0.1750935	3.332778
ACS*IFRS	2.20165	0.9462106	2.33	0.023	0.314493	4.088808
OC*IFRS	-1424529	13.62974	-1.05	0.300	-41.42894	12.93836
IFRS	-23.44456	10.44734	-2.24	0.028	-44.28112	-2.608007
FS	-7.879147	1.570378	-5.02	0.000	-11.01117	-4.747127
LEV	-0.01592	0.0210387	-0.08	0.940	-0.0435523	0.0403684
R-Square	0.44					
F-Statistics	7.74					
Prob.(F. Sig)				0.0000		

**Source: Regression result output, 2018 using stata 13.**

The robust OLS regression results displayed in table 4.4.1 reveal the cumulative R-square (0.44) which is the multiple coefficient of determination. This means that board size, audit committee



size, ownership concentration, leverage, firm size and interaction between IFRS (BS\*IFRS, ACS\*IFRS And OC\*IFRS) jointly explained the systematic variations in earnings management practices among the listed healthcare firms in Nigeria to the tune of 43%. Similarly, the result of the F- statistics value of 7.74 implies that the model is fit and is significant at 1% considering the rule of thumb of 2 (Hassan & Abubakar, 2012). Therefore, the model is fit and the explanatory variables are properly selected, combined and used as substantial value of the corporate governance is accounted for by the explanatory variables. Hence, the finding of the study is relied upon.

The regression result in table 4.4.1 further reveals that board size has a negative t-value (-2.22) and significantly related with earnings management without IFRS interaction. Conversely, interaction between Board Size and IFRS (BS \* IFRS) appears to be positively (2.22) and significantly associated with earnings management practices. This implies that board size without IFRS interaction curtails earning manipulation in the listed healthcare companies in Nigeria than it does with IFRS interaction. This finding is consistent with that of Dhaliwal et al. (2010), Aymen, Mariem and Slim (2013) and Dabor & Ibadin (2013) who found that the size of the board interacting with IFRS has no effect on reducing the level of earnings management.

The results further demonstrate clearly that the audit committee size without interaction with IFRS has a negative t-value of -3.08 and significant at 5%, compared with the positive t-value of 2.33 after ACS interaction with IFRS (ACS\*IFRS). This shows that IFRS has no moderating effect on audit committee size as it does not help reduce the incidences of earnings management. This finding tallies with that of Domenico and Ray (2011) and Hashem, Bahman and Azam (2012) who found that audit committee size interacting with IFRS has no effect on reducing the level of earnings management. The results also indicate that the bigger the size of a firm's audit

committee, the less likely will be the use of discretionary accruals. This may be as a result of the silence of IFRS in providing financial reporting framework and on how the standards offer a choice with regards to the composition of audit committee members.

Furthermore, ownership concentration without IFRS interaction is significantly positively related with earnings management with t-value of 3.12. But after its interaction with IFRS, the t-value gives an insignificant negative value of -1.05. This reveals that interaction of IFRS (OC\*IFRS), lacks moderating strength to halt income smoothening. This shows that ownership concentration alone without IFRS interaction reduces earnings manipulation in listed healthcare firms in Nigeria than joining with the interaction variable of IFRS. This finding, therefore is consistent with previous findings of Callaoa and Jarnea, 2010; Li and Park, 2012 while disagreed with the findings of Aymen, Mariem and Slim (2013)

For control variables, Firm Size appears to be negatively and significantly influencing the level of earnings management practice of listed healthcare firms in Nigeria with t-value of -5.02 which is significant at 1% level. This implies that, the larger a firm is, the more likely that it would restrict earnings management practice. This may be justified by the fact that big sized firms can provide more professional and qualitative services and will invariably constraints earnings manipulation.

Furthermore, the results shows that leverage is negatively and insignificantly influencing the level of earnings management practice among listed healthcare firms in Nigeria with t- value of -0.08 and a p-value of 0.940. This implies that high leveraged firms are more involved in earnings manipulations.

## 4.5 Hypothesis Testing

In chapter one, four principal testable hypotheses were formulated on the impact of corporate governance mechanisms on earnings management and to test whether the impact is influenced by IFRS adoption.. In this section, we subjected these propositions to empirical testing drawing from the results of our regression analyses. Our decision rule is based on the significances of the t-statistics which are represented by the p- values flagged by the statistical packages used.

### Hypothesis 1

**H<sub>01</sub>:** Board Size has no significant effect on earnings management of listed Healthcare firms in Nigeria.

Board Size was found to be negatively associated with Earnings Management of listed healthcare firms in Nigeria without IFRS interaction as it reveals a t-value of -2.22 and significant at 10%. With IFRS interaction (BS\*IFRS), the relationship inversely changed to a positive value (2.22) and significant at 10% meaning that IFRS has no moderation effect on board size of listed healthcare firms in Nigeria. This result confirms that mandatory adoption of IFRS has a smaller effect on reducing the level of earnings management in the presence of board size. Owing to this, the study fails to reject null hypothesis **H<sub>01</sub>** which suggests that Board Size has no significant effect on earnings management of listed Healthcare firms in Nigeria. The finding from this study is in line with the study conducted by Ebrahim (2007) who found that board size is passive in controlling earnings management but contrary to Rahman and Ali (2006) and Larcker, Richardson and Tuna (2007) who argued that large boards are more effective in their oversight duties and are therefore, effectively liable to control earnings management. This finding is also supported by the literature that provides evidence of some worsening or no improvement

following the introduction of the IFRS in a situation where the local GAAP already guaranteed high-quality board collection such as Ahmed et al., 2013.

## **Hypothesis 2**

**Ho<sub>2</sub>** Audit committee Size has no significant effect on earnings management of listed Healthcare firms in Nigeria.

Audit Committee Size was found to be negative (-3.08) and significant at 5% level of significance before its interaction with IFRS. Inversely, the position changed after IFRS interaction (ACS\*IFRS) which positively (2.33) and significantly related with earnings management. This means that IFRS interaction has no moderating effect on Audit Committee Size in the listed health care firms in Nigeria. Therefore, Audit Committee Size has significantly curtailed Earnings Management practice. In line with this, the study failed to reject the third null hypothesis of the study.

This shows that Audit Committee Size interaction with IFRS (ACS\*IFRS) may not help reduce the incidences of earnings management. This concurred with the findings of Li et al. (2008), Dhaliwal et al. (2010) and Dabor and Ibadin (2013) and contradicted the findings of Krishanan and Visvanathan (2008) and Soliman and Ragab (2014) who found a negative association between committee size and earnings management after Audit Committee Size interaction with IFRS (ACS\*IFRS). This may be as a result of the similarity between IFRS and local GAAP accounting policies for audit committee size.

### **Hypothesis 3**

**Ho<sub>3</sub>:** Ownership Concentration has no significant effect on earnings management of listed Healthcare firms in Nigeria.

The results demonstrate clearly that ownership concentration without IFRS interaction is positively (3.12) related with the earnings management compared to the negative relationship (-1.05) obtained after ownership concentration interaction with IFRS (OC\*IFRS) though, statistically insignificant. This decision is predicated on the fact that the insignificant negative relationship of ownership concentration interaction with IFRS is less effective in controlling earnings manipulation in listed Healthcare firms in Nigeria. The implication of this result is that, the higher the ownership concentration, the greater the tendency to engage in earnings manipulation practice in listed Healthcare firms in Nigeria. In line with this findings, the study failed to reject the third null hypothesis of the study. The finding from this study tallies with the study carried out by Rudra and Bhattacharjee, (2012) and Napaporn and Siriluck (2014).

### **Hypothesis 4**

**Ho<sub>4</sub>:** IFRS has no significant moderating effect on earnings management of listed Healthcare Firms in Nigeria.

IFRS adoption was found to be insignificant and negatively associated with earnings management practices among listed healthcare firms in Nigeria owing to the fact that all the three independent variables were subjected for interaction with IFRS adoption (BS\*IFRS, ACS\*IFRS and OC\*IFRS) but none of the variables was found to be moderated by IFRS adoption. Interaction between IFRS adoption and board size (BS\*IFRS) was found to be positively significant at 10%. Interaction between IFRS adoption and audit committee size

(ACS\*IFRS) was found to be positive with t-value of 2.33 and finally, the Interaction between IFRS adoption and ownership concentration (OC\*IFRS) was negatively (-1.05) and insignificant. This implies that IFRS adoption has no moderation effect on earnings management of listed healthcare firms in Nigeria. This may be due to the fact that, IFRS being a principle based accounting standards, is not substantially different from NGAAP which is both principle and rule-based accounting standards. Though, IFRS as a single variable without interaction with any variable was found to be negatively significant at 1% illustrating that IFRS alone can halt the menace of earnings manipulation in listed healthcare firms in Nigeria.

The result from this finding provides evidence for failure to reject the null hypothesis  $H_{04}$  which suggests that IFRS adoption has no moderation effect on earnings management practices of listed healthcare firms in Nigeria. The finding from this study is in line with the study conducted by Callao and Jarnea (2010); Domenico and Ray (2011) and Li and Park (2012) who provided supporting empirical evidence that IFRS adoption lacks moderating power to restrict earnings manipulation in Corporations.

#### **4.6 Findings and Policy Implication**

The findings of this study will enhance a better understanding of the moderation effect of IFRS on earnings management practice of listed healthcare firms in Nigeria. It is important for academia, regulatory authority, standard-setters, investors and analyst to appreciate the effects of adoption of IFRS on the level of earnings management. For dependent variable the study focused on earnings management measured by discretionary accruals based on modified Jones model and for independent variable the study used accounting standards (1 if company adopt IFRS, 0 otherwise), and to test whether the effects of IFRS interaction on magnitude of earnings

management is influenced by board size, audit committee size and ownership concentration. The interaction variables, IFRS\*Board Size, IFRS\*Audit Committee Size and IFRS\*Ownership Concentration are compared with the individual values obtained without the interaction variables. Firm size and Financial Leverage are control variables. The findings from this study have several implications which form the bases of contribution of this study to existing knowledge with respect to earnings management practices in Nigeria.

IFRS adoption showed a positive and insignificant effect on earnings management of Nigerian healthcare firms. This implies that adoption of IFRS did not curtail earnings management practices in listed healthcare firms in Nigeria. The results from the study imply that the Nigerian companies did not cease from the practice of earnings management after their adoption of IFRS. Furthermore, this study provides empirical evidence that earnings management practices cannot be restrained by IFRS adoption and that the high-quality accounting standards are not effective mechanisms of curtailing earnings manipulation as are other institutional, cultural, political, legal framework and macro economic factors which collectively influence the possibilities of income smoothening in a given country. Therefore, findings from this study support the empirical evidence which prove that IFRS does not always have a moderating effect on earnings management.

Considering whether the effects of IFRS adoption on earnings management is influenced by board size, the study provides evidence that board size does not adequately produce a situation where IFRS adoption affected earnings management. The results reveal that the interaction of IFRS\*BS does not significantly affect the tendency of Nigerian firms to manipulate earnings. This implies that IFRS adoption has no effects on earnings management of listed healthcare

firms in Nigeria. Board size was found to be negatively and significantly correlated with earnings management of listed healthcare firms in Nigeria. This implies that earnings management decreases with board size but increases after IFRS interaction.

The study further provides evidence that audit committee size does not sufficiently create a situation where IFRS adoption affected earnings management differently. The results revealed that IFRS interaction with Audit Committee size (IFRS\*Audit Committee Size) was statistically significant and positively correlated. This means that the effects of IFRS adoption on earnings management are not different between large audit committees and small audit committees.

Furthermore, the study evidently proved that ownership concentration does not properly provide an avenue where IFRS adoption affected earnings management in isolation. The result revealed that IFRS interaction with ownership concentration (IFRS\*ownership concentration) was found to be statistically insignificant and negatively correlated. This means that the moderation effects of IFRS adoption on earnings management are not well defined with ownership concentration in listed healthcare firms in Nigeria.

Moreover, for firm size (control variable), the findings provide evidence to investors that firm size is negatively associated with Earnings Management in the listed healthcare firms in Nigeria. The finding provides substantial evidence to investors and other stakeholders that larger firms have more investment opportunities and thus, are more capable of restricting the threat of earnings manipulation. In addition, the results show that leverage is negatively and insignificantly influencing the level of earnings management practice among listed healthcare firms in Nigeria with t-value of -0.08 and a p-value of 0.940. This implies that the companies



with low leverage are less involved in earnings manipulations, than the companies with higher leverage.

More so, our analysis on the moderating impact of IFRS on earnings management indicates that, the interaction between the variables was insignificant among listed healthcare firms in Nigeria. This implies that the interaction between the variables does not play any significant role in influencing earnings management. The implication is that, investor should not bother much on the moderating impact that IFRS may have on earnings management among listed healthcare firms in Nigeria.

The above findings can have implications for academia, shareholders, users of financial statement and regulatory authorities (FRCN). In particular, shareholders should be aware of creative accounting and factors affecting such behavior when they consider investment options. Users of accounting information should note the influence of board size, audit committee size, ownership concentration and mandatory IFRS adoption on such behavior and the healthiness of corporations. In addition, since extensive income smoothing may lead to corporate failure, thus regulators should concentrate their efforts where income smoothing is most likely and most extensively to happen.

Finally, the findings shed more light on CG and earnings management studies in the sense that earnings management practices are not attributed to few firms; rather it is a general phenomenon in Nigeria. Since standard setters are interested in improving the healthiness of firms, the evidence on the impact of board size, audit committee and ownership concentration on earnings management may provide a warning. To discourage abusive earnings management, standard setters may consider adjusting policy for disclosure or request additional disclosures as suggested by Hassan (2012) for firms associating discretionary activities. In addition, investors need to be

cautious in defining high quality earnings firm as firms characteristics such as board size and audit committee size may help in predicting the potential of earnings management in firms.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary**

The rising number of corporate failures such as Enron, WorldCom, Pan Pharmaceuticals, Kimia Farma, Lever brothers, Cadbury, and Afribank, has lured the growing interest on the governance structure of firms by academics, practitioners, regulatory agencies, policy makers and a host of other stakeholders. A number of studies have been conducted on corporate governance and earnings management at different times in developed, as well as, developing countries, most of which are well documented in accounting and finance literature. These studies used few of the CG proxies such as board composition, power separation, and audit committee composition. This study differs from most of the earlier ones because it tested the moderating effect of IFRS in order to observe its strength in halting earnings manipulation in companies. Also, most of the studies on corporate governance in Nigeria concentrate on banks paying little or no attention to healthcare firm despite the important role the sector plays in the economic development of the country. Consequently, this study examines the impact of corporate governance on earnings management by interacting IFRS adoption to the activities of the board size, audit committee size and ownership concentration on earnings management of listed healthcare firms in Nigeria. This study investigated the roles of corporate governance mechanisms and earnings management using the moderation effect of IFRS of listed healthcare firms in Nigeria. The study aimed at identifying those factors that individually and collectively by way of interacting both variables to determine the moderation effect of IFRS on earnings management as well as the direction of the relationship between independent, dependent and the moderation variables of the study.

In doing so, a linear regression technique based on OLS robust model with the aim of explaining the role of corporate governance mechanisms in restricting the menace of earnings management in listed healthcare firms in Nigeria where a model was constructed in order to capture the individual and the interacting impact of nine explanatory variables made up of three independent variables without interaction, then with IFRS interaction and two control variables.

The result of the study reveals that board size and audit committee size are strong and negatively significant while ownership concentration is positively significant. After IFRS interaction as a moderating variable moderating CG ( $BS*IFRS$ ,  $ACS*IFRS$  and  $OC*IFRS$ ), the result reveals positive and insignificant impact on the dependent variable. IFRS being a single variable was found to be negatively related with earnings management at 5% significant level.

Furthermore, among the control variable, firm size was found to be negatively related with earnings management of listed healthcare firms in Nigeria and is significant at 1%, while the leverage was found to be negatively insignificantly related with earnings management.

## **5.2 Conclusion**

This study examines the moderating effect of IFRS on the relationship between corporate governance and earnings management of listed healthcare firms in Nigeria. The findings of this study indicate that the level of earnings management, measured by discretionary accruals, is affected negatively by corporate governance mechanisms. Regarding control variables, the results showed that large firms are less likely tend to engage earnings management practices which may possibly refer to their benefits from their economies of scale; companies that have high return on assets are less likely to use discretionary accruals; companies that have high leverage are more likely to be motivated to use discretionary accruals. This may perhaps,

suggest that these firms are trying to show a margin of safety to their creditors and to avoid debt covenant violation.

Furthermore, using IFRS interaction, only Board size and audit committee size have a significant impact on the reduction of management practices in the period of adoption of IFRS. This may be due to the fact that firms with smaller audit committee members restrain earnings management more because of efficiency associated with small numbers which concurred with the preposition of stakeholder theory. In addition, a negative but insignificant impact of IFRS interaction with ownership concentration on earnings management may not necessarily deter earnings management. This could be as a result of the fact that other classes of shareholders will go a long way in improving the capacity and capability of monitoring management to abstain from earnings management, thus ownership concentration may not properly monitor the activities of management.

Furthermore, to these revelations, we also proved that the size of the firm is an effective control mechanism, insofar as it can adjust the flexibility exercised at the discretionary accruals. This is imperative, as the result reveals significant impact at 1% level. Inversely, it is apparent that leverage is not viable control variable as it reveals insignificant p-value.

On the over role, the study concludes that IFRS adoption does not significantly moderate the relationship between corporate governance and earnings management of Nigerian healthcare firms to abstain from the menace of earnings manipulation.

### **5.3 Recommendations**

The following recommendations were made based on the findings of the study;

1. In order to improve board size efficiency and reduce agency problems, listed firms in Nigeria should co-opt larger boards of directors with more corporate or financial expertise as this will strengthen the firm by reducing earnings manipulations.

2. The SEC should ensure that maximum required number of auditors is observed in the audit committee in order to ensure that the company is free from the danger of earnings management. Further, the audit committees of healthcare companies should be designed in such a way that a maximum committee member is reflected. Therefore, strict monitoring and efficient exertion is required on the activities of audit committees and the extent to which they fulfilled their responsibilities. The provisions of CAMA 2004 as amended as regards to audit committee size also should be amended to increase the numbers of auditors in the audit committee for utmost control against delinquent actions by managers of corporations.

3. Since firm size have positive impact on the earnings management in the healthcare firms in Nigeria, investors should be mindful of the negative effect of firm size on the earnings management. Undersized companies are therefore more susceptible to financial manipulations which consequently increase earnings manipulation.

5. There is the need to set up a centralized corporate body by SEC, NSE and the government, which will be saddled with the responsibility of collecting and collating CG related data and constructing the relevant indices to facilitate CG research in Nigeria. In addition, the compliance

with the code should be made compulsory to safeguard the interest of all stakeholders, prevent earnings manipulation and improve the strength of healthcare firms.

6. The FRCN and NASB should make it mandatory for companies to give a detailed disclosure on IFRS. In addition, necessary steps should be taken for strict adherence to IFRS requirements. Since the findings of the study revealed a negative significant association between the moderating impact of IFRS on EM.

#### **5.4. Frontier for Further Research**

This research examines the impact of CG and Earnings Management of listed healthcare firms in Nigeria using the moderating effect of IFRS and has paved the way for further research in the following area. The relationship between CG and Earnings Management in other sectors of the economy such as banking, conglomerate, and manufacturing requires research effort, especially as they are not covered in this work. In addition, same research can be conducted by bringing in other CG variables like executive compensation, CEO tenure, women directors, board members financial expert and audit committee meetings. Therefore, the study suggest to researchers who might have interest in this area to test the moderating impact of IFRS.

## REFERENCES

- Abata, M. A. (2015). Impact of IFRS on Financial Reporting Practices in Nigeria (A case of KPMG). *Global Journal of Contemporary Research in Accounting, Auditing and Business Ethics (GJCRA)* 1-263
- Abubakar, A. (2013). Corporate Governance and Discretionary Loan Loss Provision in Deposit Money Banks in Nigeria. (Unpublished M.Sc. thesis) Ahmadu Bello University Zaria.
- Abdullah, S.N. & Nasir, M. (2004). Accrual Management and the Independence of the Board of Directors and Audit Committees. *IIUM Journal of Economics and Management*. 12 No. 1, pp49-80.
- Abdulrahman, R. & Mohamed A., (2006). Board, Audit Committee, Culture and Earnings Management: *Malaysian evidence, Managerial Auditing Journal*, Vol. 21. No. 7, pp783-804.
- Abass, A. (2011). Corporate Governance and Accounting Conservatism in the Nigerian Foods and Beverages Industry. (Unpublished M.Sc. Dissertation) Bayero University, Kano-Nigeria.
- Abdul Rahman, R; & Ali.F.H.M (2006). Board, audit committee, culture and earnings Management: *evidence, managerial auditing journal*, 21 (7): 783-804.
- Adegbie, F. F. (2010). Corporate Governance and Financial Distress in the Banking Industry: A Case of Nigerian Economy. *International Journal of Research in Commerce and Management* 5, pp. 1-52
- Adeyemi, S.B., Okpala, O. & Dabor, E.L. (2012). Factors Affecting Audit Quality. *International Journal of Business and Social Science* Vol. 3 No. 20. 32-98.
- Ahmad, A. & Hassan, S. U. (2011). Does Corporate Governance Affect Earnings Management? *Nigerian Journal of Accounting Research*. Department of Accounting, Ahmadu Bello University, Zaria. 7, 134-651.
- Ahmad, S. A. & Tukur, G. (2005). Corporate Governance Mechanism and Firms' Financial performance in Nigeria Research Paper 149. African Economic Consortium. Nairobi Kenya. 12(3): 192-270



- Ahmad, S. A. & Tukur, G. (2005). Corporate Governance Mechanism and Firms' Financial performance in Nigeria. *Research Paper 149. African Economic Consortium. Nairobi Kenya*, 3, 43-87.
- Ahmad, A. & Hassan, S. U. (2011). Does Corporate Governance Affect Earnings Management? *Nigerian Journal of Accounting Research*. Department of Accounting Ahmadu Bello University, Zaria. 7, 12-31
- Ahmed, A. S., Neel, M. & Wang, D. (2013). Does mandatory adoption of IFRS improve accounting quality? Preliminary evidence. *Contemporary Accounting Research* 30(4), 1344-1372.
- Ahmed, K., Hossain, M. & Adams, M. (2006). The Effects of Board Composition and Board Size on the Informativeness of Annual Accounting Earnings. *Corporate Governance: An International Review*, Vol. 14, No.5, pp418-431
- Aksu, M. (2006). Transparency & Disclosure in the Istanbul Stock Exchange: Did IFRS Adoption and Corporate Governance Principles Make a Difference? *Working Paper Series*, available at <http://ssrn.com/abstract=965301>.
- Alhaji, S. I. (2014). Corporate Governance and Financial Reporting Quality in the Nigerian Oil Marketing Industry. An Unpublished PhD thesis presented at the department of Accounting, Bayero University, Kano, Nigeria. 72-251.
- Alzoubi, E. S. S., & Selamat, M. H. (2012). The effectiveness of corporate governance mechanisms on constraining earning management: Literature review and proposed framework. *International Journal of Global Business*, 5(1), 17-35.
- Armstrong, C., Barth, M. Jagolinzer, A. & Riedl, E., (2007). Market Reaction to the Adoption of IFRS in Europe. Working paper, Stanford University, 9(2), 543-821.
- Anderson, R.C., Mansi, S.A., & Reeb, D. M., (2004). Board Characteristics, Accounting Report Integrity, and the Cost of Debt. *Journal of Accounting and Economics Vol. 37. pp315-342*
- Arthur, L. (1998). The Numbers Game, remarks at New York University Center for Law and Business, September 28,
- Arif, Z.U., Faruque, O., & Sarkar, U. (2012). Impact of Good Governance on Corporate Governance in Bangladesh. *International Journal of Research in Commerce and Management. Vol.3. No. 8 ISSN 0976-2183 pp 6-8*
- Australian Securities Exchange (ASX) Corporate Governance Council (2007). Corporate Governance Council and Recommendation 2nd Edition (ASX), Sydney.5, 32-76.

- Aymen, A., Mariem, b. & Slim, S. (2013). Corporate governance mechanisms and earnings management after and before the adoption of IFRS. *The Business & Management Journal*, Vol. 3, No. r 4
- Baba, B. U. (2011). Assessing Nigeria's Journey towards IFRS Adoption. *International Journal of Information Management and Business Review* Vol. 5, No. 10, pp. 505-513.
- Bakre, A. (2007,) Corporate Governance and Bank Failure in Nigeria: Issues, Challenges and Opportunities. *Research Journal of Finance and Finance* Vol 2 No. 2.
- Ball, R., (2006). Earnings quality in UK private firms: Comparative loss recognition timeliness. *Journal of Accounting and Economics* 39, 83-128.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Barth, M.E., J.A.Elliott, and M.W.Finn. (1999). Market awards associated with patterns of increasing earnings. *Journal of Accounting Research* 37 (Autumn), 387-413.
- Barth, M., Landman, W. & Lang, M. (2007). International Accounting Standards and Accounting Quality. *Journal of Accounting Research*, 46, 467-728.
- Bashir, G; Navid H; and Omid, F. (2012). Ownership Structure and earnings management: Evidence from Iran. *International Journal of Business and management*, Vol. 7(15), 88-97.
- Bello, A. (2005). Economics of Financial Reporting: A test on Nigerian Banks. An unpublished seminar paper presented at the department of Accounting, Ahmadu Bello University, Zaria.
- Beasley, M.S. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. *The Accounting Review* 71 (October): 433-465.
- Bebchuk, L. A. & Cohen, A. (2004). The Elusive Quest for Global Governance Standards. *University of Pennsylvania Law Review*, 157, 1263-1317.
- Blue Ribbon Committee (BRC).(1999). Report and recommendations of the Blue Ribbon Committee on improving the effectiveness of corporate audit committees. New York Stock Exchange and National Association of Securities Dealers ([www.nyse.com](http://www.nyse.com)).

- Bowen, R. M., Rajgopal, S., & Venkatachalam, M. (2008). Accounting discretion, corporate governance, and firm performance. *Contemporary Accounting Research*, 25(2), 351–405
- Bradbury, M., Mak, Y., & Tan, S. 2006. Board characteristics, audit committee characteristics, and abnormal accruals. *Pacific Accounting Review*, 18: 47–68.
- Breusch, T. S. and Pagan, A. R. (1979). A Simple Test for Heteroskedasticity and Random Coefficient Variation. *Econometrica*. 47 (5): 1287–1294. JSTOR 1911963. MR 545960.
- Budrina M. (2014). The Impact of IFRS Adoption on Accrual-Based Earnings Management: Evidence from Russia. *Corporate Governance: An International Review*, Vol. 15 No 6 pp1413-1428.
- Bugshan, T. (2005). Corporate Governance, Earnings Management, and the information content of Accounting Earnings: Theoretical model and Empirical Test'. P. HD Thesis. Bond University Queensland 4229, Australia.
- Burgstahler, D., Hail, L., & Eames, C., (2003) The importance of reporting incentives: Earnings management in European private and public firms. *The Accounting Review* 81, 983-101
- Burgstahler, D., & Dichev, I., (1997). Earnings management to avoid earnings decreases and losses. *Journal of Accounting and Economics* 24, 99-126.
- Bushman, R., Chen, Q., Engel, E., & Smith A. (2000). The Sensitivity of Corporate Governance Systems to the Timeliness of Accounting Earnings. *Working paper, University of Chicago*
- Cadbury Committee Report (1992). *The Financial Aspects of Corporate Governance*. Geeand Co. Ltd. London.
- Byrd, J.W. and Hickman, K.A. (1992). Do Outside Directors Monitor Managers? Evidence from tender offer bids. *Journal of Financial Economics*, 32(2) 195–207.
- Cadbury Commission (1992) Code of Best Practice: Report of the Committee on the Financial Aspects of Corporate Governance (The 'Cadbury Committee' & 'The Code of Best Practice'), Financial Reporting Council. [www.ecgi.org/codes/country](http://www.ecgi.org/codes/country)
- Callao, S. & Jarne, J.I. (2010) Have IFRS Affected Earnings Management in the European Union. *Accounting in Europe*, Vol. 7 No. 2, and pp.159
- Carcello, J.V., & Neal, T.L. (2000) audit Committee characteristics and auditor reporting. *The accounting review* vol. 7(5) pp. 453-467

- CBN, (2006) Code of Corporate Governance for Banks in Nigeria Post Consolidation.
- Chang, Q. & Warfield, T.D (2005). Equity Incentives and Earnings Management. *The Accounting Reviews*.
- Chen, H., Tang, Q., Jiang, Y. & Lin, Z. (2010) the role of Inter-national Financial Reporting Standards in Accounting Quality: Evi-dence from the European Union', *Journal of International Finan-cial Management and Accounting*, Vol. 24 No. 3, pp. 220 - 278.
- Cheng, Q & Warfield, T.D (2005), 'Equity incentives and earnings management', *the accounting review*, Vol. 80(2), 441-476.
- Chua, Y., Cheong, C. & Gould, G. (2012).the Impact of Mandatory IFRS Adoption on Accounting Quality: Evidence from Australia', *Journal of International Accounting Research*, Vol. 11No.
- Chtourou, S. M., Bedard, J., & Courteau, L. (2001) Corporate Governance and Earnings Management. <http://papers.ssrn.com/abstract=275053>. Accessed 10/12/2012.
- Chi-keung, M. (2013). Corporate Governance and Earnings Management: A survey of literature. *The journal of applied Business Research*, Vol. 29(2).
- Christensen, H. B. (2012). Why do firms rarely adopt IFRS voluntarily? Academics find significant benefits and the costs appear to be low. *Review of Accounting Studies* 17(3), 518-525.
- Cohen, J., Krishnamoorthy G. & Wright, A. (2002). Corporate Governance and the Audit Process. *Contemporary Accounting Research* Vol. 19, pp573-592.
- Cook, R. D.& Weisberg, S. (1983). Diagnostics for Heteroskedasticity in Regression. *Biometrika*. **70** (1): 1–10. doi:10.1093/biomet/70.1.1.
- Cornett, M. M., McNutt, J.J. & Tehrnanian, H. (2006) "Earnings management at large US bank holding companies", Working paper
- Dabor, E. L. & Adeyemi, S. B (2009). Corporate Governance and the credibility of financial Statement. *Journal of Business Systems, Governance and Ethics*. Vol. 4 No.1. p. 143-324
- Dabor, E.L. & Ibadin, P.O. (2013). An Evaluation of the Implication of Earnings Management Determinants in the Banking Industry: The case of Nigeria, *African Journal of Social Sciences*, 3(3), pp. 118-129.

- Dabor, E. L. & Tijjani, B. (2011). Corporate Governance and Corporate Disclosure; in Dandago and Tijjani (ed) Corporate Governance and Social Responsibility. Department of Accounting Bayero University Kano.
- Dalton, D.R., Daily, C.M., Johnson, J.L., & Ellstrand, A.E., (1999). Number of directors and financial performance: a meta-analysis. *Academy of Management Journal* 42, 674–686.
- Daily, C. M., Dalton, D. R., & Cannella, A. A. (2003). Corporate governance: Decades of Dialogue and data. *Academy of Management Review*, Vol. 28 No. 3, pp371-382.
- Davidson, W. N., Jiraporn, P., Kim, Y. S., & Nemec, C. (2004). Earnings management following duality-creating successions: Ethnostatistics, impression management, and agency theory. *Academy of Management Journal*, 47(2), 267–275
- DeAngelo L. (1988). Managerial Competition, information cost and Corporate Governance: the use of accounting performance measures in proxy contests, *Journal of Accounting and Economics* 10, 3-36
- Dechow, P. M Sloan R.G; & Sweeney, A.P. (1995). Detecting earnings management. *The Accounting review*, 70(2), 193-225.
- Dechow, P. M Sloan R.G. & Sweeney, A.P. (1996). Causes and consequences of earnings manipulations: And analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research*. Vol. 13(1), 1-36.
- Dechow, P., D: & Skinner (2000). Earnings Management: Reconciling the view of Accounting academics, practitioners and regulators. *Accounting Horizons*. Vol. 14, 235-250.
- Dechow, P. M, Sloan, Richard G, Sweeney & Amy P, (1996) Causes and consequences of earnings manipulations: *An analysis of firms subject to enforcement actions by the SEC*, *Contemporary Accounting Research*. Toronto: Vol. 13, Iss. 1; p. 1 (36 pages)
- Dechow, P. & Dichev, I. (2002). The Quality of Accruals Earnings: The Role of Accrual Estimation Errors. *The Accounting Review*, pp643-655.
- Dechow, P. M., Sloan, R.G & Sweeney, A.P (1996). Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement by the SEC', *Contemporary Accounting Research* Vol. 13, pp1-36.
- DeGeorge, F., Patel, J., & Zeckhauser, R., (1999). Earnings management to exceed thresholds. *Journal of Business* 27, 1-33.

- Denga D.I. & Ali A. (1986). An introduction of Research Methods and Statistics in Education and Social Sciences, Jos: Savanna Publishers Ltd.
- DeZoort, F. T. & Salteerio, S. (2001). The Effects of Corporate Governance Experience, Financial Reporting and Audit Knowledge on Audit Committee Members' Judgements'. *A Journal of Auditing, Practice and Theory*.
- DeZoort, F.T. (1998). An Analysis of Experience Effects on Audit Committee Members' Oversight Judgements, *Accounting, Organizations and Society*. 23 (1): Vol. 1 No. 21.
- Dhaliwal, D., Naiker, V. & Navissi, F. (2006). Audit committee financial expertise, corporate governance, and accruals quality: an empirical analysis. SSRN working paper series.
- Domenico, C. & Ray, D. (2011) The Impact of Corporate Governance and the Adoption of IFRS on Earnings Quality in Different Legal Jurisdictions: a Comparison between Italy and the UK: Working paper
- Duke, J. & Kankpang, K. (2011). Linking Corporate Governance with Organizational Performance: New Insights and Evidence from Nigeria. *Global Journal of Management and Business Research* Vol. 11 issue 12 Version 1.0 December USA.
- Dunn, D.J., (1987). Directors aren't doing their jobs. *Fortune* (March) 117–119.
- Dye, R. A., 1988, Earnings management in an overlapping generation model, *Journal of Accounting Research* 26, No 2, 195-235.
- Ebrahim, A. (2007). Earnings management and Board activity: additional evidence. *Review of Accounting and Finance*. Vol. 6(1), 42-58.
- Effiok, S. O. & Effiong, C. (2012). Corporate Governance, Corporate strategy and Corporate Performance. Evidence from the Financial Institutions listed on the Nigerian Stock Exchange. *European Journal of Business and Management*
- Ekoja, E.B. (2002). The Income Smoothing Hypothesis. An Unpublished PhD seminar paper presented at the department of Accounting, Ahmadu Bello University, Zaria, Nigeria.
- Erena, O.T. & Tehulu, T. A. (2012). The Impact of Corporate Governance Mechanisms on Earnings Management: Evidence from Banks in Ethiopia. *International Journal of Research in Commerce, Economics and Management*. Vol. 2, No, 8 ISSN 2231-4245.
- Eisenhardt, K.M. (1989). Agency theory: an assessment and review', *The Academy of Management Review*, 14(1):57-74.

- Eisenberg, T., Sundgren, S. & Martin T. W, (1998). Larger Board Size and decreasing firm value in small firms, *Journal of Financial Economics*, Vol. 48, pp. 35-54.
- Fama, E.F., & M.C. Jensen.(1983).The separation of ownership and control.*The Journal of Law and Economics* 26 (June): 301-325.
- Fama, E.F. & Jensen, M. (1983). Agency Problems and Residual Claims, *Journal of Law and Economics* No 26, pp327-349.
- Farber, D. (2005) Restoring Trust after Fraud; Does Corporate Governance Matter? *The accounting review* Vol. 80, pp539-561.
- Farinha, J. (2002). Dividend Policy, Corporate Governance and Managerial Entrenchment Hypothesis: An Empirical Analysis. *EFMA 2002 London Meeting*.
- Farooq, O. & El Jai, H. (2012), "Ownership structure and earnings management: evidence from the Casablanca Stock Exchange", *International Research Journal of Finance and Economics*, (84):95-105
- Fatimoh, M. (2012).Impact of Corporate Governance on Banks performance in Nigeria.*Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* Vol 3.No. 3 pp257-260.
- Firstenberg, P.B., & Malkiel, B.G. (1980). Why corporate boards need independent directors, *Management Review* (April), 26-38.
- Garcia-Meca., E., & Sanchez-Ballesta., J.P. (2009). Corporate Governance and Earnings Management: A Meta- Analysis. *An International Review*, 17(5): 594–610
- Gompers, Paul A., Joy L. Ishii, and Andrew Metrick, 2003, Corporate governance and equity prices, *Quarterly Journal of Economics* 118(1), 107-155
- Goodstein, P., Jiang, W., Lee, P., & Anandarajan, A. (1999). The association between corporate governance and earnings quality: Further evidence using the GOV-score. *Advances in Accounting*, 24(2), 191–201.
- Gulzar, M. A. & Wang, Z. (2011). Corporate governance characteristics and earnings management: empirical evidence from Chinese listed firms." *International Journal of Accounting and Financial Reporting*, vol. 1 (1): 133-151
- Hafiza, A.; Aisha H; & Sulesa, S. (2005). Corporate governance, ownership structures and earnings quality: Malaysian Evidence. Faculty of Management and Economics, University of Malasia.

- Hashem N., Bahman B. & Azam S. (2012), An Empirical Analysis of Earnings Management Motives in Firms Listed on Tehran Stock Exchange. *Journal of Basic and Applied Scientific Research, Res.*, 2(10)9990-9993,
- Hassan , S. U. (2011). Corporate Governance and Financial Reporting Quality: A Study of Nigerian Money Deposit Banks, *International Journal of Research in Computer Application and Management. (USA) Vol. 1 No. 6 pp12-19 ISSN 2231-1009.*
- Hassan, S. U & Ahmed, A. (2012) Corporate Governance, Earning Management and Financial Performance: A Case of Nigerian Manufacturing Firms. *American International Journal of Contemporary Research. Vol. 2 No. 7, pp 214-226*
- [Hausman, J. A.](#) (1978) *Specification Tests in Econometrics. Econometrica.* **46** (6):1251–1271. [ISSN 0012-9682. JSTOR 1913827.](#)
- Healy, P.M., &Wahlen, J.M., (1998). A review of the earnings management literature and its implication for standard setting. *Harvard Working Paper.*
- Hong-Bong, A. (2009). Governance-owner structure and earnings management: Evidence from korea. *Journal of Asian Social Science. Vol. 5 (10), 48-61.*
- Hossain M, Adams M (1995). Voluntary financial disclosure by Australian listed companies. *Aust. Account. Rev.* 5(2): 45-55
- Iatridis, G. (2010). International Financial Reporting Standards and the quality of financial statement information , *International Re-view of Financial Analysis*, 19, pp.193 - 204
- Ijiri, Y; &Jaedicke, R.K. (1966): ‘Reliability and Objectivity of Accounting measurements, the accounting *Review*, Vol. 41, no. 3, pp 474-483.
- Iatridis, G. (2010), « International Financial Reporting Standards and the quality of financial statement information», *International Review of Financial Analysis*, Vol. 19, pp. 193 204.
- Isenmila, P.A &Elija, A. (2012). Earnings Management and Ownership Structure: *Evidence from Nigeria, Research journal of finance and Accounting, Vol. 3(7), 24-36.*
- Ismail, W.A.W., Kamarudin, K.A., Zijl, T. & Dunstan, K. (2013) Earnings quality and the adoption of IFRS based Accounting Standards: Evidence from an emerging Market, *Asian Review of Accounting*, Vol. 21 No. 1.
- Iyoha, F. O; & Faboyede, J., (2011). Institutional Infrastructure and the adoption of International Financial Reporting Standards in Nigeria. SSRN publications, 17-23.



- Jaggi, B., & Li, C. (2004). Value relevance of earnings based on international accounting standards. *Indian Accounting Review*, 8 (1), 25-47.
- Jensen. M. C (1993). The modern industry revolution, exit, and the failure of internal control system, *Journal of Finance* 48,831-880
- Jensen, Michael C., & Murphy, Kevin J, (1990). Performance Pay and Top-Management Incentives, *Journal of Political Economy* 98,225–64.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, 76(2), 323-329
- Jiambalvo, J. (1996). Discussion of Causes and Consequences of Earning manipulations: *An Analysis of Firms Subject to Enforcement by SEC' Contemporary Accounting Research. Vol. 13, 37-47.*
- Jinghui, L. (2012) Board Monitoring, Management Contracting and Earnings Management: An Evidence from ASX Listed Companies
- Johnston, D. & Rock, S., (2005). Earnings management to minimize Superfund clean-up and transaction costs. *Contemporary Accounting Research* 22, 617-642.
- Jones, J.J., (1991). Earnings management during impact relief investigations. *Journal of Accounting Research* 29,193–228
- Joshua I. , Anthony O. A. & Titus A.I. (2014). Pharmaceutical Industry Utilization in Nigeria. *African Journal of Pharmacy and Pharmacology*, Vol 8(21) pp579-585
- Kabara, A.S. (2013) Corporate Governance and Voluntary Disclosure by Firms in the Downstream Sector of the Nigerian Petroleum Industry. (Unpublished M.Sc. thesis) Bayero University, Kano.
- Kao, L., & Chen, A. (2004). The Effects of Board Characteristics on Earnings Management. Corporate Ownership & Control, *An Empirical analysis, Journal of Accounting research* Vol. 1 No.3, pp 96-107.
- Klein A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics* 33, 375–400.
- Koh, P.-S. (2003). On the association between institutional ownership and aggressive corporate earnings management in Australia. *British Accounting Review*, 35(2), 105–128
- Krishnan, G.V. & Visvanathan, G. (2008). Does the SOX definition of an accounting expert matter? The association between audit committee directors' accounting expertise and accounting conservatism. *Contemporary Accounting Research*, 25, pp. 827-857.

- Larcker, D.F., Richardson, S.A., and Tuna, I. (2007). Corporate Governance, Accounting Outcomes, and Organizational Performance. *The Accounting Review*, 82(4): 963-1008.
- Lin, J. W., Li, J. F. and Yang, J. S. 2006. The effect of audit committee performance on earnings quality. *Managerial Auditing Journal*, 21(9): 921-933.
- Madawaki, A. (2014). Adoption of International Financial Reporting Standards in Developing Countries: *The Case of Nigeria*. *International Journal of Business and Management*, 7 (3), 152-161
- Maher, M. D., & Anderson, M. E. (1999). Insider trading, earnings quality, and accrual mispricing. *The Accounting Review*, 77(4), 755–791.
- Mansor, N., Che-Ahmad, A., Ahmad-Zaluki, N. A., & Osman, A. H. (2013). Corporate governance and earnings management: A study on the Malaysian family- and nonfamily owned PLCs. *Procedia Economics and Finance*, 7, 221–229.
- Musa, F. A. (2014). Possession Formation and Earnings Management of Listed Chemical and Paints Firms in Nigeria (Unpublished M.Sc. thesis) Ahmadu Bello University Zaria.
- Musa, F.I. (2006). The Impact of Corporate Governance on the Performance and Value of Banks in Nigeria: An Agency Approach. *Nigerian Journal of Accounting Research*. No 4, June, pp 1-15.
- McMullen, Dorothy A and Raghunandan, K,(1996). Enhancing audit committee effectiveness, *Journal of Accountancy* (August), 79-81.
- McDaniel, L., R.D. Martin & L.A. Maines, (2002). Evaluating Financial Reporting Quality: The Effects of Financial Expertise vs. Financial Literacy. *The Accounting Review* vol. 77, 139-167.
- McKee, T. E. (2005). Earnings management: *An executive perspective*. Mason, OH: Thomson.
- Menon, K. & Williams, J.D. (1996). The Use of Audit Committees for Monitoring. *Journal of Accountancy and Public Policy*. Vol. 13, pp121-139.
- Napaporn, L. K, & Siriluck, (2014) S. Does IFRS adoption mitigate accrual earnings management? Evidence from an emerging market. *International Journal of Business*. Vol. 4 No. 12
- Nigerian Accounting Standard Board. (2010). Report of roadmap committee on the Adoption of International Financial Reporting Standards (IFRS) in Nigeria.

- Nworji, I.D; Adebayo, O. & David, A. (2011) Corporate Governance and Bank Failure in Nigeria: Issues, Challenges and Opportunities. *Research Journal of Finance and Finance Vol. 2 No. 2.*
- Okike, E. N. M. (2002) Influences on the Corporate Governance Framework and Reporting on Listed Companies in a Developing Economy: a Nigerian case study, Paper presented at the 3rd International Conference for the British Accounting Association Special Interest Group in Corporate Governance, at the Queen's University Belfast, 16 December.
- Okpala, K. E., (2012). Adoption of IFRS and Financial Statements effect s: The perceived implications on FDI and Nigeria Economy. *Australian Journal of Business and Management Research, 2, 76-83.*
- Park Y.W & Hyun-Han S. (2003). Board composition and earnings management in Canada. *Journal of Corporate Finance VOL. 4 No.8*
- Peasnell, K.V., Pope, P.F., & Young, S.,( 2000). Board monitoring and earnings management: Do outside directors influence abnormal accruals? *Working paper.*
- Perry, S & T. Williams, (1994). Earnings Management preceding management buyout offers. *Journal of Accounting and Economics 18,157-179*
- Romano, R. (2005), "The Sarbanes-Oxley Act and the making of quack corporate governance", *The Yale Law Journal, 114, p. 1521.*
- Roodposhti, F.R., Chashmi, S.N. (2011). The impact of corporate governance mechanisms on earnings management, *African Journal of Business Management, 5(11), pp. 4143-4151. 94.*
- Rosenstein, S., & J. G. Wyatt, 1990, Outside directors, board independence, and shareholder wealth, *Journal of Financial Economics 26, 175-91.*
- Schipper, K. & Vincent, L. (2003). Earnings Quality, *Journal of Accounting Horizons, Vol. 17, pp97-110*
- Saleh, N. M., Iskandah, T. M. & Rahmat, M. M. (2005), Earnings Management and Board Characteristics: Evidence from Malaysia, *Journal Pengurusan 24, 77-103.*
- Samaila, I.A. (2012) Benefits and Challenges of Convergence to International Reporting Standards by Public Accountability Companies in Nigeria. *International Journal of Research in Commerce and Management. Vol 3 Issue 8 February.*

- Sanda, A U, Mukaila, A. S. & Garba, T. (2005): Corporate Governance Mechanisms and Firm Financial Performance in Nigeria”, AERC Research Paper, No. 149.
- Shehu, U.H. and Aitimon, J., (2017). Capital Structure and Investment Growth Opportunity of Listed Pharmaceutical Firms in Nigeria. *Asian Business Research; Vol. 2, No. 1, 2017 ISSN 2424-8479 E-ISSN 2424-8983. Published by July Press*
- Shen, C., and Chih, H. (2005). Investor protection, prospect theory, and earnings management: *An international comparison of the banking industry. Journal of Banking & Finance, 29: 2675-2697*
- Shleifer, A. & Vishny, R.W. (1997) ‘A survey of corporate governance’, *The Journal of Corporate Finance, 48(2):737-783.*
- Soliman, M.M. & Ragab, A.A. (2014). “Audit Committee Effectiveness, Audit Quality & Earnings Management: An Empirical Study of Listed Companies in Egypt. *Research Journal of Finance & Accounting 5 (2) 155 – 166.*
- Stiglitz, M. C. (1985). The modern industrial revolution, exit, and the failure of internal control systems. *Journal of Finance, 48(3), 831–880.*
- Subramanyam, K.R. (1996), “The pricing of discretionary accruals”, *Journal of Accounting & Economics, Vol. 22, pp. 249-81.*
- Sun, L. & Rath, S. (2009), “An empirical analysis of earnings management in Australia”, *International Journal of Human and Social Sciences, 4 (14), 1069-1085*
- Tehrani, H., Cornett, M.M., Marcus, A.J. & Saunders, A. (2006). Earnings Management, Corporate Governance and the True Financial Performance. Retrieved from: SSRN:
- Teoh, S.H., Welch, I., & Wong, T.J. (1998). Earnings management and the underperformance of seasoned equity offerings. *Journal of Financial Economics 50, 63–99.*
- Tijjani, B. & Dabor, E. L. (2010). The Impact of Earnings Management and Corporate Governance on Firm Performance. *Bayero University International Journal of Accounting Research, Vol. 4, No.1, June.*
- Uadiale O. M. (2012). Earnings Management and Corporate Governance in Nigeria. *University of Lagos Research Journal of Finance and Accounting, Vol. 3, No 3, 2012*

- Usman, S.H., &Yero J.I (2012). Ownership Concentration and Earnings Management Practice Nigerian Listed Conglomerates. *American Journal Contemporary Research, Vol. 2 No. 7*
- Uwalomwa, U., Daramola, S. P. & Anjolaoluwa, O. (2014) The effects of corporate governance mechanisms on earnings management of listed firms in Nigeria. *Accounting and Management Information Systems Vol. 13, No. 1, pp. 159–174.*
- Vafeas, N.,( 2000) Board structure and the informativeness of earnings. *Journal of Accounting and Public Policy 19, 139-160*
- Wakeel, A. I. &Ekundayo, P. M (2012). Determinants of Pharmaceutical Industry's Performance in Nigeria. University of Lagos, Nigeria
- Wang, Y. & Campbell, M. (2012) Corporate governance, earnings management, and IFRS: Empirical evidence from Chinese domestically listed companies. *the Journal of finance, Vol. 13. No.6, pp1935-197*
- Watts, R., and Zimmerman, J. 1986. *Positive Accounting Theory*. Englewood Cliffs, Prentice-Hall, Inc.
- Wikipedia, (2012). Corporate Governance. [http://en.wikipedia.org/wiki/Corporate\\_governance](http://en.wikipedia.org/wiki/Corporate_governance)  
Accessed on 21/12/12
- Xie, W., Wallace N. Davidson III & Peter J. Dalt, (2003). Earnings management and corporate governance: the role of the board and the audit committee, *Journal of Corporate Finance 9 (2003) 295– 316*
- Yaari, H., DaDalt, P., Ronen, J., and Yaari, V. 2007.An accruals conundrum in earnings management research. Work in Process. New York University and Morgan State University
- Yermack, D. (1996). Higher market valuation of a company with a small board of directors. *Journal of Financial Economics, 40: 185-211.*
- Zeghal, D., Chtourou, S. & MnifSellami, Y. (2011) ‘An analysis of the effect of mandatory adoption of IAS/IFRS on earnings ma-nagement’, *Journal of International Accounting, Auditing and Taxation, Vol. 20, pp.61*
- Zhou, H., Xiong,Y. & Ganguli, G. (2010), Accounting standards and earnings management: Evidence froman emerging market, Working paper, RetrievedNovember8, 2014 from <http://jyw.znufe.edu.cn/htdocs/ly/200806/P0200806273257986581>.

## **APPENDIX A**

### **LISTS OF LISTED HEALTHCARE FIRMS IN NIGERIA**

1. Afrik healthcare Plc
2. Evans Plc
3. Ekocorp pharmaceuticals Plc.
4. GlaxoSmithkline Nig. Plc
5. Juli pharmaceuticals Plc
6. May & Baker Plc
7. Nigerian-German Pharmaceutical Plc
8. Neimeth Int. Pharm. Plc
9. Pharma-Deco Plc
10. Union Diagnostic Clinical services Plc.

## APPENDIX B

. xtsum em bs acs oc ifrs fs lev

Variable		Mean	Std. Dev.	Min	Max	Observations	
em	overall	31.44525	5.196594	20.08	42.87	N =	80
	between		4.816694	20.72375	38.87125	n =	10
	within		2.420702	24.394	38.834	T =	8
bs	overall	9.9625	1.831122	6	14	N =	80
	between		1.336	8	11.625	n =	10
	within		1.313874	4.9625	13.7125	T =	8
acs	overall	5.6625	.8410926	4	7	N =	80
	between		.8208439	4	6.25	n =	10
	within		.3055396	4.7875	7.4125	T =	8
oc	overall	.463125	.0890114	.37	.6	N =	80
	between		.0832129	.37	.6	n =	10
	within		.040152	.321875	.523125	T =	8
ifrs	overall	.62825	.338271	.03	.98	N =	80
	between		.0439665	.5675	.6825	n =	10
	within		.3356568	.01825	.9995	T =	8
fs	overall	6.7135	.3274338	6.11	7.51	N =	80
	between		.3055373	6.3225	7.29375	n =	10
	within		.1487671	6.18975	6.99975	T =	8
lev	overall	52.59638	21.41047	5.06	87.23	N =	80
	between		19.44471	9.83125	74.10375	n =	10
	within		10.66836	21.65638	75.82762	T =	8

. su em bs acs oc ifrs fs lev, detail

em					
Percentiles		Smallest			
1%	20.08	20.08			
5%	20.665	20.23			
10%	22.26	20.32		Obs	80
25%	30.705	20.61		Sum of Wgt.	80
50%	31.775			Mean	31.44525
		Largest		Std. Dev.	5.196594
75%	33.105	40.69			
90%	38.46	41.23		Variance	27.00459
95%	40.5	41.28		Skewness	-.4636796
99%	42.87	42.87		Kurtosis	3.379883

## bs

Percentiles		Smallest		
1%	6	6		
5%	7	6		
10%	7	7	Obs	80
25%	9	7	Sum of Wgt.	80
50%		10	Mean	9.9625
			Std. Dev.	1.831122
		Largest		
75%	11	12	Variance	3.353006
90%	12	12	Skewness	-.3053856
95%	12	13	Kurtosis	2.176213
99%	14	14		

## ACS

Percentiles		Smallest		
1%	4	4		
5%	4	4		
10%	4	4	Obs	80
25%	6	4	Sum of Wgt.	80
50%		6	Mean	5.6625
			Std. Dev.	.8410926
		Largest		
75%	6	7	Variance	.7074367
90%	6	7	Skewness	-1.227492
95%	6.5	7	Kurtosis	3.287674
99%	7	7		

## OC

Percentiles		Smallest		
1%	.37	.37		
5%	.37	.37		
10%	.37	.37	Obs	80
25%	.37	.37	Sum of Wgt.	80
50%		.43	Mean	.463125
			Std. Dev.	.0890114
		Largest		
75%	.56	.6	Variance	.007923
90%	.585	.6	Skewness	.2847773
95%	.6	.6	Kurtosis	1.427701
99%	.6	.6		

## ifrs

Percentiles		Smallest		
1%	.03	.03		
5%	.07	.04		
10%	.09	.07	Obs	80
25%	.29	.07	Sum of Wgt.	80
50%		.82	Mean	.62825
			Std. Dev.	.338271
		Largest		
75%	.91	.96	Variance	.1144273
90%	.94	.96	Skewness	-.6179917
95%	.955	.97	Kurtosis	1.611443
99%	.98	.98		



FS

Percentiles		Smallest		
1%	6.11	6.11		
5%	6.215	6.14		
10%	6.33	6.16	Obs	80
25%	6.44	6.21	Sum of Wgt.	80
50%		6.725	Mean	6.7135
75%		6.915	Largest	
90%		7.15	Std. Dev.	.3274338
95%		7.295	Variance	.1072129
99%		7.51	Skewness	.2935731
			Kurtosis	2.502553

lev

Percentiles		Smallest		
1%	5.06	5.06		
5%	10.615	7.31		
10%	17.545	9.31	Obs	80
25%	43.135	10.24	Sum of Wgt.	80
50%		57.265	Mean	52.59638
75%		66.815	Largest	
90%		79.495	Std. Dev.	21.41047
95%		83.665	Variance	458.4083
99%		87.23	Skewness	-.5861282
			Kurtosis	2.581524

. sktest em bs acs oc ifrs fs lev

Skewness/Kurtosis tests for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	joint	
				adj chi2(2)	Prob>chi2
em	80	0.0789	0.3104	4.25	0.1195
bs	80	0.2374	0.0280	5.90	0.0523
acs	80	0.0001	0.3846	13.50	0.0012
oc	80	0.2695	0.0000	.	0.0000
ifrs	80	0.0225	0.0000	45.80	0.0000
fs	80	0.2555	0.3662	2.18	0.3364
lev	80	0.0295	0.5084	5.09	0.0785

. swilk em bs acs oc ifrs fs lev

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
em	80	0.89206	7.409	4.388	0.00001
bs	80	0.97396	1.787	1.272	0.10160
acs	80	0.91265	5.996	3.924	0.00004
oc	80	0.92520	5.134	3.584	0.00017
ifrs	80	0.78696	14.623	5.878	0.00000
fs	80	0.97605	1.644	1.089	0.13811
lev	80	0.94088	4.058	3.069	0.00107

```
. spearman em bs acs oc ifrs fs lev, star (0.05)
(obs=80)
```

	em	bs	acs	oc	ifrs	fs	lev
em	1.0000						
bs	-0.1115	1.0000					
acs	-0.4185*	0.0742	1.0000				
oc	0.3056*	-0.0429	-0.4621*	1.0000			
ifrs	0.0313	0.1870	-0.1051	0.2501*	1.0000		
fs	-0.5663*	-0.0966	0.0960	-0.0095	0.0886	1.0000	
lev	-0.0008	-0.0639	-0.0579	-0.3137*	-0.1627	0.0032	1.0000

```
. reg em bs acs oc bsifrs acsifrs ocifrs ifrs fs lev
```

Source	SS	df	MS	Number of obs =	80
Model	930.755516	9	103.41728	F( 9, 70) =	6.02
Residual	1202.60741	70	17.1801059	Prob > F =	0.0000
				R-squared =	0.4363
				Adj R-squared =	0.3638
Total	2133.36293	79	27.0045941	Root MSE =	4.1449

em	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
bs	-1.218798	.6183516	-1.97	0.053	-2.452062 .0144652
acs	-2.091106	1.403651	-1.49	0.141	-4.890599 .7083867
oc	29.90954	12.50373	2.39	0.019	4.971639 54.84744
bsifrs	1.753936	.8636855	2.03	0.046	.0313694 3.476502
acsifrs	2.201651	1.782487	1.24	0.221	-1.353408 5.75671
ocifrs	-14.24529	16.69649	-0.85	0.396	-47.5454 19.05481
ifrs	-23.44456	16.96045	-1.38	0.171	-57.27112 10.38199
fs	-7.879147	1.495149	-5.27	0.000	-10.86113 -4.897167
lev	-.001592	.0259775	-0.06	0.951	-.0534024 .0502185
_cons	94.51253	16.51741	5.72	0.000	61.56959 127.4555

```
. hettest
```

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
```

```
Ho: Constant variance
```

```
Variables: fitted values of em
```

```
chi2(1) = 9.51
```

```
Prob > chi2 = 0.0020
```

. xtreg em bs acs oc bsifrs acsifrs ocifrs ifrs fs lev, fe

```

Fixed-effects (within) regression      Number of obs   =      80
Group variable: id                    Number of groups =      10

R-sq:  within = 0.1685                Obs per group:  min =      8
        between = 0.2900                avg =           8.0
        overall = 0.2585                max =           8

corr(u_i, Xb) = 0.1634                F(9, 61)       =      1.37
                                           Prob > F       =      0.2202

```

em	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
bs	-.4146066	.4751801	-0.87	0.386	-1.364788	.5355748
acs	-2.360765	1.313904	-1.80	0.077	-4.988079	.266548
oc	22.3374	10.58551	2.11	0.039	1.17036	43.50444
bsifrs	.5794345	.5987392	0.97	0.337	-.6178184	1.776687
acsifrs	2.261577	1.099021	2.06	0.044	.0639485	4.459206
ocifrs	-9.656466	10.4475	-0.92	0.359	-30.54754	11.23461
ifrs	-15.32124	11.00642	-1.39	0.169	-37.32993	6.687452
fs	-.8622116	2.151342	-0.40	0.690	-5.164086	3.439663
lev	-.0023042	.0315639	-0.07	0.942	-.06542	.0608117
_cons	45.27142	17.93719	2.52	0.014	9.40378	81.13905
sigma_u	4.1326852					
sigma_e	2.5120832					
rho	.73019852	(fraction of variance due to u_i)				

F test that all u\_i=0: F(9, 61) = 14.40 Prob > F = 0.0000

. est store fixed

```
. xtreg em bs acs oc bsifrs acsifrs ocifrs ifrs fs lev, re
```

```
Random-effects GLS regression           Number of obs   =           80
Group variable: id                     Number of groups =           10

R-sq:  within = 0.0986                 Obs per group:  min =           8
      between = 0.5885                   avg =           8.0
      overall  = 0.4363                   max =           8

corr(u_i, X) = 0 (assumed)             Wald chi2(9)    =           54.18
                                           Prob > chi2     =           0.0000
```

em	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
bs	-1.218798	.6183516	-1.97	0.049	-2.430745	-.0068513
acs	-2.091106	1.403651	-1.49	0.136	-4.842211	.6599985
oc	29.90954	12.50373	2.39	0.017	5.402681	54.4164
bsifrs	1.753936	.8636855	2.03	0.042	.0611433	3.446728
acsifrs	2.201651	1.782487	1.24	0.217	-1.29196	5.695262
ocifrs	-14.24529	16.69649	-0.85	0.394	-46.96982	18.47923
ifrs	-23.44456	16.96045	-1.38	0.167	-56.68644	9.797307
fs	-7.879147	1.495149	-5.27	0.000	-10.80959	-4.94871
lev	-.001592	.0259775	-0.06	0.951	-.0525069	.0493229
_cons	94.51253	16.51741	5.72	0.000	62.139	126.8861
sigma_u	0					
sigma_e	2.5120832					
rho	0	(fraction of variance due to u_i)				

```
. est store random
```

```
. hausman fixed random
```

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fixed	(B) random		
bs	-.4146066	-1.218798	.8041917	.
acs	-2.360765	-2.091106	-.269659	.
oc	22.3374	29.90954	-7.572139	.
bsifrs	.5794345	1.753936	-1.174501	.
acsifrs	2.261577	2.201651	.0599263	.
ocifrs	-9.656466	-14.24529	4.588827	.
ifrs	-15.32124	-23.44456	8.123323	.
fs	-.8622116	-7.879147	7.016936	1.546869
lev	-.0023042	-.001592	-.0007122	.017929

b = consistent under Ho and Ha; obtained from xtreg  
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

```
chi2(9) = (b-B)' [(V_b-V_B)^(-1)] (b-B)
          = 3.08
Prob>chi2 = 0.9611
(V_b-V_B is not positive definite)
```

```
. xttest0
```

Breusch and Pagan Lagrangian multiplier test for random effects

$$em[id,t] = Xb + u[id] + e[id,t]$$

Estimated results:

	Var	sd = sqrt(Var)
em	27.00459	5.196594
e	6.310562	2.512083
u	0	0

Test: Var(u) = 0

chibar2(01) = 0.00  
 Prob > chibar2 = 1.0000

```
. reg em bs acs oc bsifrs acsifrs ocifrs ifrs fs lev, robust
```

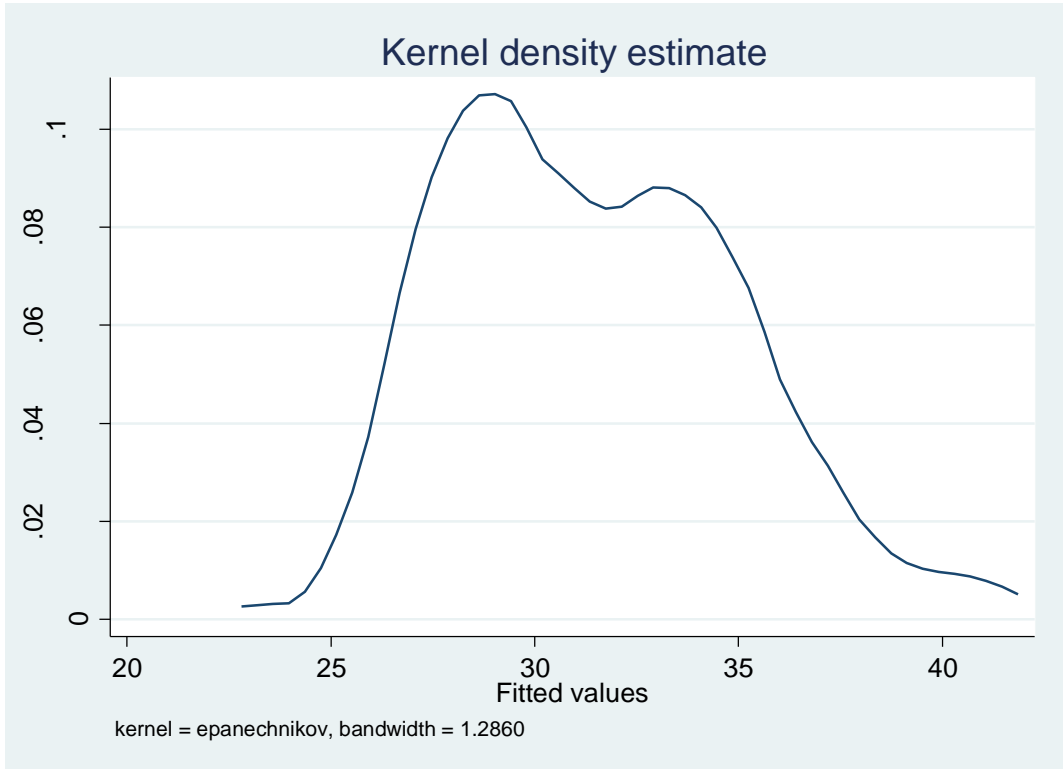
Linear regression

Number of obs = 80  
 F( 9, 70) = 7.74  
 Prob > F = 0.0000  
 R-squared = 0.4363  
 Root MSE = 4.1449

em	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
bs	-1.218798	.5480982	-2.22	0.029	-2.311946	-.1256509
acs	-2.091106	.6785576	-3.08	0.003	-3.444447	-.7377659
oc	29.90954	9.578214	3.12	0.003	10.80639	49.01269
bsifrs	1.753936	.7916231	2.22	0.030	.1750935	3.332778
acsifrs	2.201651	.9462106	2.33	0.023	.3144931	4.088808
ocifrs	-14.24529	13.62974	-1.05	0.300	-41.42894	12.93836
ifrs	-23.44456	10.44734	-2.24	0.028	-44.28112	-2.608007
fs	-7.879147	1.570378	-5.02	0.000	-11.01117	-4.747127
lev	-.001592	.0210387	-0.08	0.940	-.0435523	.0403684
_cons	94.51253	11.82311	7.99	0.000	70.93209	118.093

```
. predict e
(option xb assumed; fitted values)
```

```
. kdensity e
```



```
. testparm bs acs oc bsifrs acsifrs ocifrs, equal
```

- ( 1) - bs + acs = 0
- ( 2) - bs + oc = 0
- ( 3) - bs + bsifrs = 0
- ( 4) - bs + acsifrs = 0
- ( 5) - bs + ocifrs = 0

```
F( 5, 70) = 6.93
Prob > F = 0.0000
```