Accounting Regulation in Nigeria: Institutionalisation, Accounting Quality Effects and Capital Market Effects.

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Abstract

This study examines three different aspects of accounting regulation in Nigeria. The first empirical chapter (chapter 2) examines the process of the institutionalisation of IFRS in Nigeria and its outcome. Using data from documents, interviews and survey, the chapter finds that IFRS is substantively adopted by Nigerian listed firms, as they use it for internal reporting. Furthermore, the institutionalisation process involves three levels of social order (i.e., Social, political and economic level; organisational field; and organisational level) at which different agents reinforce one another to ensure that institutionalisation of IFRS in Nigeria is substantive.

The second empirical chapter examines whether accounting regulation in the form of IFRS adoption and/or enforcement of accounting standards lead(s) to higher accounting quality. The effects of these two regulatory mechanisms were assessed on three dimensions of accounting quality using fixed-effect regressions for earnings management, binary logistic regression for timely loss recognition, and a system dynamic panel model for earnings persistence on a sample of non-financial companies listed on the Nigerian Stock Exchange. The chapter finds that IFRS adoption significantly increases earnings management and reduces earnings persistence, while institutional reform, through the setting up of the Financial Reporting Council of Nigeria (FRCN) to enforce and monitor compliance with accounting standards, reduces earnings management.

The third empirical chapter examines the effect of accounting regulation in the form of IFRS adoption and enforcement on market liquidity in Nigeria. The chapter adopts a longitudinal research design and analyses hand-collected panel data sets from semi-structured archives. Three proxies of market liquidity (i.e., bid-ask spread, zero returns, and volume) were adopted for the study. Firm-quarter observations of 1,416, 1,417 and 1,418 were analysed using a random-effect model for bid-ask-spread and a fixed-effect regression for both zero returns and volume, respectively. The chapter finds that both IFRS adoption and enforcement significantly improve the Nigerian stock market liquidity.

Dedication

This thesis is dedicated to my wife, Sofiyyah Muhyideen Ajoke, and daughters, Ikram, Nabeelah, and Manaar.

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Chapter 1
Introduction

1.1 Motivation for the Study

The motivation for this study stems from the 2008 Nigerian capital market crisis that wiped away investors' funds to the tune of $13.33 billion and led to the pull out of both foreign and local investors from the Nigerian capital market. In the aftermath of the crisis, the Securities and Exchange (SEC) report (2009) noted that the unease in the valuation of assets, arising from non-transparent reporting by the Nigerian listed firms, precipitated the exist of investors. The World Bank/IMF through their Report on the Observance of Standards and Codes (ROSC) (2011) recommended the adoption of IFRS and the establishment of the Financial Reporting Council of Nigeria (FRCN) to improve the integrity of the financial statements of listed companies in Nigeria. To facilitate the smooth adoption of IFRS and obviate the potential knowledge gap, the report further recommends the reform of professional accounting education in the country. It is the implications of these bundle of accounting reforms that this study seeks to assess.

The adoption of IFRS across numerous parts of the world is considered the greatest accounting change ever (Leuz and Wysocki, 2016). More than one hundred countries, developing and developed countries, have adopted IFRS (Bova and Pereira, 2012). In recent times, several studies to examine various dimensions of issues related to this unprecedented accounting change. These issues revolve around three main themes which are IFRS adoption and accounting quality, IFRS adoption and capital market outcome, and the institutionalisation of IFRS in developing countries given their weak accounting infrastructure. This study is divided into three parts; the first part (Chapter 2) examines the institutionalisation of IFRS in Nigeria, the second part (Chapter 3) examines the impact of IFRS adoption and the enforcement of accounting standards on accounting quality in Nigeria, while the third part (Chapter 4) examine the implications of IFRS adoption and the enforcement of accounting standards on market liquidity in Nigeria.

1.1.1 The Institutionalisation of IFRS

IFRS was advanced by the developed countries through the International Accounting Standards Board (IASB). These countries have necessary infrastructures such as developed capital markets, strong accounting profession and strong enforcement institutions, which aid proper adoption of and compliance with IFRS by companies in these countries. These infrastructures are lacking in many developing countries (Chand 2005; Chand and White, 2007; Bova and Pereira, 2012). Hence, the extent of their

compliance with IFRS is often very low. Arising from these weak accounting infrastructures, extant studies (e.g., Irvine, 2008; Albu and Albu, 2011) have discussed the failure of firms in the developing countries to comply with IFRS, albeit it has been adopted by the countries in which they operate. However, some developing countries, for example Nigeria, have implemented reforms such as the establishment of the Financial Reporting Council of Nigeria and the strengthening of its accounting profession to enhance the adoption of IFRS. The effectiveness of such reforms is yet to be explored in extant literature (Nyamori, Abdul-Rahaman and Samkin, 2017). Thus, the objective of the second chapter of this study is to examine the process and outcome of the institutionalisation of IFRS in Nigeria.

Institutionalisation is the process by which a rule or practice (i.e., an institution) expected in different social settings is developed and learned (Dillard, Goodman and Rigsby, 2004). The 'rule' here is IFRS (Wysocki, 2011). Institutionalisation takes place at three levels of social order, namely social, political, and economic level; organisational field; and organisational level (Dillard et al., 2004). According to DiMaggio (1988), the outcome of the institutionalisation process is determined by "the relative power of the actors who support, oppose, or otherwise strive to influence it" (p. 13) at the three levels of social order.

The outcome of the institutionalisation process is either a symbolic or a substantive adoption of IFRS. IFRS is symbolically adopted when it is not fully embedded in organisational processes (e.g., used for internal reporting), while it is substantively adopted when it is fully embedded in organisational processes (PwC, 2004). Many studies on the institutionalisation of IFRS in the developing countries (e.g., Chand 2005; Chand and White, 2007; Chand and Patel, 2008; Irvine, 2008; Albu and Albu, 2012; Albu, Albu and Alexander, 2014; Nurunnabi, 2015) find IFRS to be symbolically adopted in the developing countries. In many cases, this symbolic adoption is ascribed to the motive for adopting IFRS by these countries, which is a symbolic portrayal of an improved reporting environment. However, many of these countries lack necessary infrastructures (e.g., weak accounting profession and weak or non-existent enforcement institutions) to support IFRS implementation.

Given the improved accounting infrastructures in Nigeria, through the establishment of the FRCN and the reform of the professional accountancy education[1], the objective of this part of the study is to examine the influence of these developments

[1] Institute of Chartered Accountants of Nigeria. (ICAN).

on the institutionalisation of IFRS in Nigeria and the outcome of the institutionalisation process. Using Dillard et al.'s (2004) model of neo-institutional theory, this objective is fulfilled by examining the institutionalising agents and the type of isomorphic pressure exerted by the agents at the different levels of social order – the social, political, and economic level (macro); the organisational field (meso); and the organisational level (micro).

1.1.1.1 Research questions

The following research questions are answered under this theme:

i) Who are the agents and what type of isomorphic pressure do they exert at the macro level to institutionalise IFRS?

ii) Who are the agents and what type of isomorphic pressure do they exert at the meso level to institutionalise IFRS?

iii) Who are the agents and what type of isomorphic pressure do they exert at the micro level to institutionalise IFRS?

1.1.1.2 Research method

To answer the research questions above, a qualitative research approach was adopted. Data were gathered from multiple sources to adequately capture the three levels of analysis (i.e., three levels of social order). Due to the historical nature of the institutionalisation process at the social, political, and economic level, data for this level were mainly gathered from documents (see Bowen, 2009). Data for the organisational field were gathered through interviews, while data for the organisational level were gathered through both interviews and semi-structured questionnaire to cater for the multitude of stakeholders at this level. Thematic analysis was used in analysing the data gathered. Thematic analysis is used for the study because the study is theory-driven (i.e., neo-institutional theory) (Braune and Clarke, 2005) and the theory formed the framework within which the data gathered were analysed.

1.1.1.3 Summary of findings

IFRS is substantively adopted by the Nigerian listed firms. This outcome is facilitated by the creation of the FRCN, the reform of professional accountancy education and other institutionalising agents at the three levels of social order. At the macro level, the World Bank exerts coercive pressure on the Nigerian government by making IFRS adoption a requirement for access to future grants and investments in the country. Coupled with the desire by the Nigerian government to improve the outlook of the country's accounting

environment, following the capital market crisis in the country in 2008, the FRCN was established in 2011. The FRCN and the ICAN are the institutionalising agents at the meso level. The FRCN exerts coercive isomorphic pressures on external auditors and directly conducts annual review of companies' reports to ensure that audited reports comply with IFRS. The ICAN exerts normative isomorphic pressure on companies through the training of chartered accountants and accounting graduates in line with IFRS. At the micro level, the board of directors and internal auditors are the agents responsible for institutionalising IFRS by ensuring that IFRS is used for internal reporting. Other agents at this level are the cost-benefit of non-compliance with IFRS for internal reporting and the pressure exerted by a parent company on a Nigerian subsidiary to ensure that their internal reports comply with IFRS alongside other members of the group.

1.1.2 IFRS, Enforcement and Accounting Quality

IFRS, according to the IASB, is a high-quality accounting standard that will improve accounting quality once adopted by countries. This assertion has been tested by many studies in different jurisdictions across the globe (e.g., Barth, Landsman and Lang, 2008; Ahmed, Neel and Wang, 2013; Cai, Rahman and Courtenay, 2014; Zeghal, Chtourou and Fourati, 2012; Capkun, Collins and Jeanjean, 2016), which has generated a large pool of mixed results (Brüggemann, Hitz and Sellhorn, 2013). However, recent arguments by Christensen, Lee, Walker and Zeng (2015) show that the enforcement of accounting standards rather than the adoption of IFRS is a better explanation for a higher accounting quality for mandatory IFRS adopters. Similarly, Capkun et al. (2016) observe that amendments made to IFRS in 2005 increased the flexibility of IFRS, thereby making the 'high-quality' accounting standard to reduce accounting quality rather than improve it.

While cross-country analyses have been criticised for generalising findings beyond homogeneous settings, Leuz and Wysocki (2016) and De George, Lee and Shivakumar (2016) recently called for more single-country studies to unveil new insights. Nigeria is one unique setting to examine the true impact (negative or positive) of IFRS. This is because the enforcement of accounting standard, through the establishment of the FRCN, was made a year before IFRS adoption, which provides the opportunity to separate the effect of IFRS on accounting quality from the effect of enforcement on accounting quality.

To this end, the objective of the third chapter of this thesis is to disentangle the impact of enforcement and IFRS adoption on accounting quality in Nigeria. To address

this objective, three dimensions of accounting quality are examined. These dimensions are earnings management, timely loss recognition and earnings persistence.

1.1.2.1 Research questions

The following research questions are answered to address the research objective above:

a) What is the effect of IFRS adoption on earnings management following market failure in Nigeria?
b) What is the effect of the establishment of the FRCN to enforce accounting standards on earnings management following market failure in Nigeria?
c) What is the effect of IFRS adoption on timely loss recognition following market failure in Nigeria?
d) What is the effect of the establishment of the FRCN to enforce accounting standards on timely loss recognition following market failure in Nigeria?
e) What is the effect of IFRS adoption on earnings persistence following market failure in Nigeria?

1.1.2.2 Research method

The hypotheses developed in this part of the study were tested using various multivariate regression techniques. Hand-collected panel data were sourced from annual reports of the listed Nigerian firms. For the earnings management models, fixed-effect regression was used to test the hypotheses. A binary logistic regression model developed by Lang, Raedy and Wilson (2005) was used to test the hypotheses related to timely loss recognition, while a generalised method of moment model was used in testing the hypothesis related to earnings persistence.

1.1.2.3 Summary of findings

The study finds that IFRS increases earnings management and reduces timely loss recognition and earnings persistence of the Nigerian listed firms. This result implies that IFRS reduces accounting quality of the Nigerian listed firms. On the contrary, enforcement reduces earnings management and increases timely loss recognition of the Nigerian listed firms. Overall, the study finds that although IFRS and enforcement were part of the same accounting regulation bundle, aimed at improving accounting quality in Nigeria, the two regulatory mechanisms have different effects on accounting quality. The finding is robust to alternative accounting quality proxies and several control variables. The study employed public accountability model of accounting regulation (Tower, 1993) to illuminate the effect of the two regulatory mechanisms on accounting quality.

1.1.3 IFRS, Enforcement and Capital Market Outcomes

The IASB has attached numerous capital market benefits to IFRS adoption. These benefits include increased Foreign Direct Investment (FDI) flow, lower cost of capital, higher market liquidity, and higher value relevance of accounting numbers among others. While many studies (Daske, Hail, Leuz and Verdi, 2008; 2013; Florou and Pope, 2012; Christensen et al., 2013; Florou and Kosi, 2015) have found a positive relationship between IFRS adoption and the aforementioned capital market benefits, they have linked these results to the underlying characteristics of the study areas. These characteristics include the extent of divergence of a country's local GAAP[2] from IFRS (Florou and Pope, 2012, Florou and Kosi, 2015), the quality of investor protection and rule of law (Daske et al., 2008), and the quality of enforcement mechanisms (Florou and Pope, 2012; Christensen et al., 2013). Furthermore, Hail and Leuz (2006) show that cost of capital varies from one country to the other based on the degree of enforcement, security regulation, and the extent of disclosure. Similarly, Nnadi and Soobaroyen (2015) find that improvement in the rule of law and a reduction in the level of corruption are the important explanatory factors for an increase in FDI in African countries.

Given the above findings, it can be concluded that the impact of IFRS on capital market outcomes needs further exploration in order to ascertain whether the adoption of IFRS alone without these supporting infrastructures (enforcement, the rule of law and the degree of divergence of GAAP from IFRS) is sufficient to have positive capital market outcomes More importantly, understanding the effect of IFRS on capital market requires a setting with fewer of these cofounding variables (supporting infrastructure) or where their effects can be separated.

Nigeria is a unique setting for exploring this issue because it has fewer of the cofounding variables. Nigeria has a weak rule of law, investor protection is low, and there is a low divergence of the Nigerian GAAP from IFRS. These characteristics make it possible to largely isolate the effect of IFRS on capital market outcomes from other possible explanations. Furthermore, the effect of enforcement on capital market outcome can be separated from the effect of IFRS, since the FRCN was established in 2011 while IFRS was adopted in 2012.

The fourth chapter of this study, therefore, explores the impact of IFRS adoption and enforcement on market liquidity in Nigeria. Market liquidity is the choice of capital market outcome examined in this study because data is not available for examining the

[2] Generally Accepted Accounting Principles

cost of capital and the value-relevance argument does not have a justifiable theoretical underpinning (Christensen et al., 2013).

1.1.3.1 Research questions

The following research questions are answered to fulfil the objective of this chapter:

i) Does IFRS adoption increase the market liquidity of Nigerian listed companies?

ii) Does the establishment of the FRCN to enforce accounting standards increase the stock market liquidity of Nigerian listed firms?

1.1.3.2 Research methods

Panel data for chapter four of this thesis was hand collected from 'African markets'[3] and the Nigerian Stock Exchange archives. Fixed-effect and random-effect regression models were run to test the hypotheses of this chapter. Three proxies were adopted as the measurements for market liquidity. These proxies are the bid-ask spread, trade volume and the proportion of zero daily returns (Chai, Faff and Gharghori, 2010).

1.1.3.3 Summary of findings

Both IFRS adoption and enforcement (establishment of the FRCN) were found to significantly increase market liquidity of Nigerian listed firms. The findings are robust to several control variables, including corporate governance variables. Furthermore, the unique setting of Nigeria makes it possible to use the signalling theory to illuminate the study. This is so because the two regulatory mechanisms were adopted following the 2008 market crisis in Nigeria, which was caused by accounting irregularities and opaque information environment. Thus, the regulatory mechanisms were attempts to signal to both foreign and local investors that the information environment had improved, and accounting irregularities have been curtailed.

1.2 Epistemological and Ontological Considerations

Epistemology is all about what is considered acceptable knowledge in a particular discipline (Bryman, 2012). In social sciences, the argument is often between whether the social world can be studied with reference to the principles, techniques, and procedures used in the natural science or by adopting a different standpoint.

Positivism is an epistemological position that assumes the principles and procedures in the natural science can be used in studying the social world (Snape and

[3] A website, hosting market data of African stock markets.

Spencer, 2003). Positivism assumes that only phenomena that can be confirmed by the senses can be genuinely considered knowledge. In positivism, hypotheses are generated from a theory, which are tested to prove or disprove the theory (i.e., deductive approach). Alternatively, theories can be generated by gathering and analysing data from the field (i.e., inductive approach). Furthermore, scientific inquiries must be objective, that is, free from the researcher's influence.

Interpretivism is the opposite of positivism. It assumes that the social science is different from the natural science as its subjects - people and institutions - are different from the natural science's subjects. Interpretivism disregards the existence of a single truth that could be uncovered by scientific procedures. In contrast, it aims to "grasp the subjective meaning of social action" (Bryman, 2012, p. 30) by interpreting the social actions from the actors' view point. Interpretivism involves three levels of interpretation. Firstly, the actors interpret the situation. Secondly, their interpretations are interpreted by the researcher while collecting the data. Thirdly, the researcher interprets his findings within a theoretical frame, a conceptual frame, and the literature within a discipline.

Realism is the third epistemological philosophy that balances between positivism and interpretivism. According to the realist, like the positivist, there exist a reality that is independent of the researcher, which he or she tries to unveil. Realism can be naïve realism (i.e., empirical realism) or critical realism (Easton, 2010; Bryman, 2012). The naïve realist espouse that such reality can be readily accessed and that our description of reality is reality itself. Critical realists assume that our construction of reality only facilitates our understanding of the reality but not reality itself. The crux of critical realism is causal explanation (Easton, 2010). Unlike positivism that assumes that the occurrence of events in a regular pattern implies causality, and interpretivism that does not attempt to discern into causality but merely interprets it (Easton, 2012), critical realists move further to explain the causal mechanism(s) of events by paying special attention to the context (Bryman, 2012).

Ontology refers to how social entities and social actors and their relationships are perceived. Ontological traditions can either be objectivism or constructionism. Objectivism assumes that social entities are independent of social actors. They are external realities or facts that can neither be constructed nor influenced by social actors. For example, an organisation has a set of rules and codes that individuals working in it must abide by. Objectivism assumes that such rules and codes exert influence on the workers who do not have influence in the construction of the rules and their application. On the other hand, constructionism asserts that social entities and their meanings are not

just constructed by social actors but are also constantly being revised by them. Hence, in organisations, rules are not independent of social actors but are constructed, interpreted, and often revised by them to suit various social contexts. Objectivism is a feature of epistemological tradition of positivism while constructionism is a feature of interpretivism (Bryman, 2012).

In this study, both objectivism and interpretivism are adopted. Specifically, chapter two uses interpretivism while chapters three and four use positivism. The reasons for adopting these two philosophies is that chapter two examines the processes by which IFRS has become institutionalised in Nigerian listed firms. This is done by collecting data from interviewees based on their interpretations, which is further interpreted by the researcher within the theoretical framing of neo-institutional theory. Chapters three and four investigate the impact of accounting regulation (IFRS adoption and enforcement) on accounting quality and market liquidity respectively in Nigeria. Hypotheses were developed to test the public accountability model of accounting regulation and signalling theory in chapters three and four, respectively. Thus, the two chapters follow the epistemological position of positivism.

The study adopts multiple theoretical framings since a single theory cannot capture all the objectives of the study. Chapter 2 examine the how IFRS institutionalised, the influence of the reform of other accounting infrastructure in the institutionalisation process and the outcome of the process. The Dillard et al.'s (2004) model of institutionalisation theory is used to illuminate the institutionalisation process. According to the theory, organisations face different isomorphic pressure to comply with societal expectations at different levels. The overarching norm (institution) is created at the social, political and economic level which is then transferred to the organisational field by actors/agent. From the organisational field, the norm is further transferred to the organisational level at which the outcome of the institutionalisation process is determined. The successful institutionalisation of the norm at each level is dependent on the relative power/influence of the actors at each level.

In Chapter 3, the public accountability model of accounting regulation is used to theorise the expected impact of IFRS adoption and the enforcement of accounting standards on accounting quality. The theoretical faming provides a more nuanced link between accounting reform and accounting quality as perceived by multiple stakeholders. The theory suggests that the essence of accounting reform is to bring about public accountability to all stakeholders that have legitimate interests in an organisation. Based on this theory, it is expected that IFRS adoption and the enforcement of accounting

standards should improve various dimensions of accounting quality that are relevant to different stakeholders. For example, lower earnings management is relevant for regulators, the government, investors and creditors. Similarly, timely loss recognition is relevant to creditors.

In Chapter 4, signalling theory is used to argue that after the Nigerian capital market crisis, the adoption of IFRS and the establishment of the FRCN, as recommended by the World Bank, are used as signals by the Nigerian government to the investors of a better reporting regime and more transparent information environment in Nigeria. It is expected that the signals will stimulate a positive response, through higher market liquidity, from both internal and external investors who had initially renounced trading in the Nigerian capital market.

1.3 Contributions of the Study

This study makes several contributions to theory and practice. Contrary to the findings that the outcome of the institutionalisation of IFRS in most developing countries is symbolic, chapter two shows that the establishment of an effective enforcement institution with well-developed strategies will ensure substantive adoption of IFRS. The chapter also contributes to theory by showing that the institutionalisation of IFRS follows three levels of social order as posited by Dillard et al. (2004). This is the first study as far as the researcher knows that uses the Dillard et al.'s (2004) model of institutional theory to showcase the institutionalisation of IFRS at three levels of social order. Through this theory, the researcher finds that there are important strategies employed by the agent(s) at each level of social order to ensure IFRS is substantively adopted at the organisational level. Subsequent studies can adopt this rich theoretical framing in IFRS-related studies.

Chapter three contributes to the literature in several ways. Firstly, contrary to the findings of Kim (2016) that enforcement without IFRS does not improve accounting quality, the researcher finds that enforcement and IFRS have different effects on accounting quality in Nigeria. Specifically, IFRS reduces accounting quality while enforcement increases it. Secondly, contrary to the findings of Nnadi and Soobaroyen (2015), the researcher finds that socio-political factors (e.g., rule of law and investor protection) do not have to change to have an improvement in accounting quality. The establishment of an independent enforcement institution (e.g., the FRCN in Nigeria) is sufficient to have improvements in accounting quality. Thirdly, contrary to the findings of Cai et al. (2014) that IFRS adoption has an insignificant effect on earnings management in countries whose national standards have low divergence from IFRS, the researcher

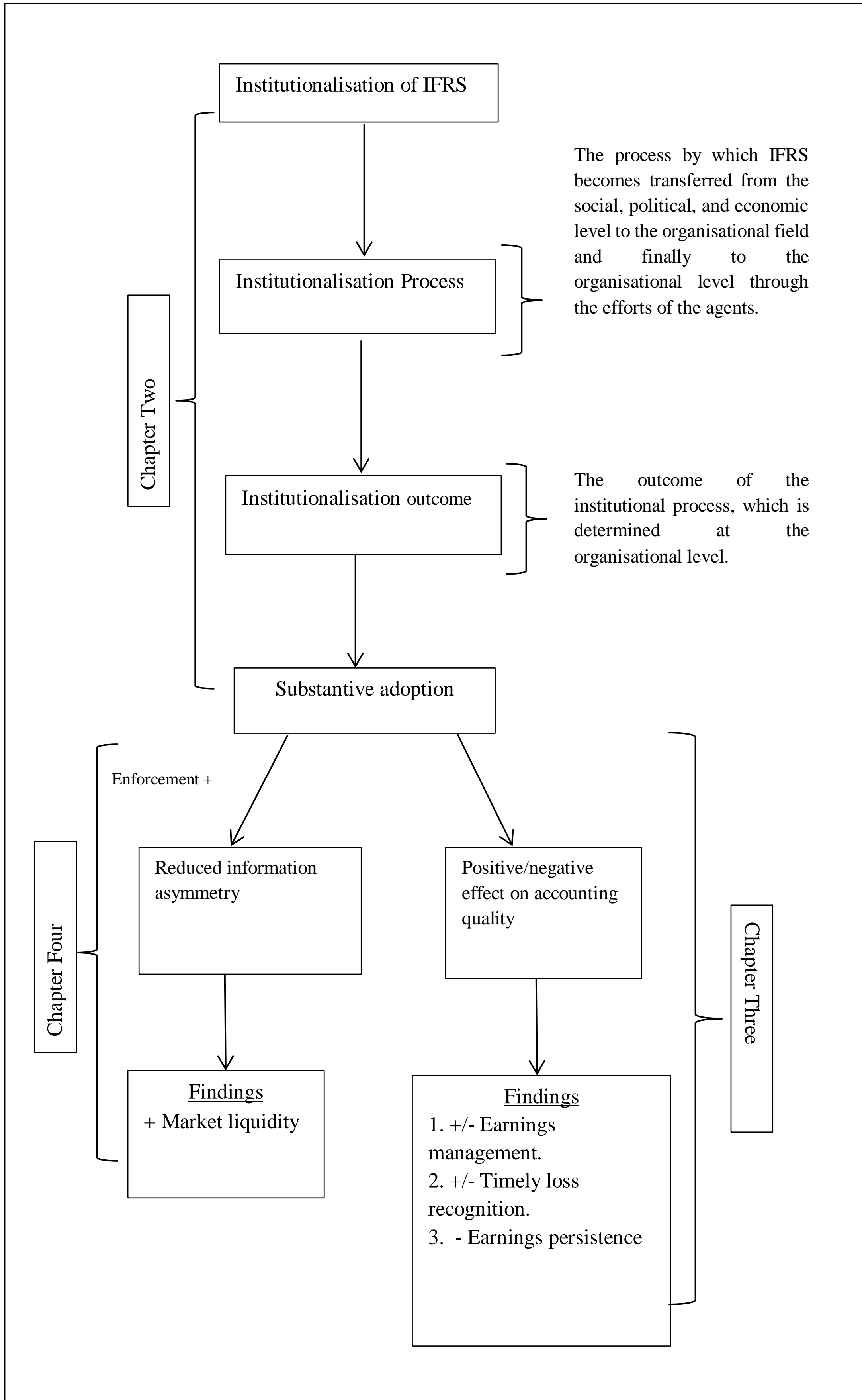
finds that despite the low divergence of the Nigerian GAAP from IFRS, the latter is found to significantly reduce accounting quality. Fourthly, the chapter explores a theoretical link – public accountability model of accounting regulation – between accounting regulation and accounting quality. This theory predicts that accounting regulation is needed to ensure public accountability to all relevant stakeholders. The theory gives a more nuanced explanation of why accounting regulation is needed by showing that accounting regulation is needed for informational equity and efficiency. This theory can be explored by future research in accounting regulation.

The last empirical chapter also finds that sociopolitical variables like the rule of law and investor protection, as argued by Daske et al. (2008) and Nnadi and Soobaroyen (2015), may not necessarily improve to have an increase in market liquidity. For a developing country with weak accounting standard and enforcement institution, adopting IFRS and establishing a capable enforcement institution are important steps to realizing improvements in the capital market. Furthermore, contrary to the argument of Christensen et al. (2013) that enforcement is the major explanatory variable for increased market liquidity in many countries that adopted IFRS, the situation in Nigeria, with opaque information environment, is different. IFRS adoption has a significant effect in reducing information asymmetry alongside the enforcement by the FRCN. The study uses signaling theory to illuminate the impact of IFRS adoption and enforcement on market liquidity by exploring the unique nature of the Nigerian setting. IFRS adoption and enforcement were signals to the capital market that the Nigerian accounting information environment has improved after the 2008 market crisis. This theory creates a more nuanced theoretical link among IFRS adoption, enforcement, and market liquidity. This theory can be employed in similar contexts to Nigeria, especially after a market crisis, to unveil new insights.

1.4 Structure of the Thesis

This thesis is divided into five chapters, of which three are empirical chapters. The first chapter is an introduction to the whole study, charting out its aims and approaches. Chapters 2, 3 and 4 are empirical chapters that explore the issues discussed under the background to the study. Each of these chapters is structured into sections exploring the introduction and problem statement of the chapter, literature review (conceptual and empirical review), research methods and data analysis, and conclusion. Chapter 5 concludes the whole thesis, makes recommendations, and provides future research areas that may be explored.

Figure 1.2 Overview of the Thesis



Chapter 2
The Institutionalisation of IFRS in Nigeria

2.1 Introduction

Financial reporting practices vary markedly across jurisdictions. Among the factors leading to this variation are economic systems, legal systems, taxation systems, and the mode of financing (Haller and Walton, 2003; Roberts, Weetman and Gordon, 2008; Nobes and Parker, 2016). The development of multinational corporations, the spread of trade liberalisation, and most importantly, the Asian financial crisis of 1997 have led to the call for the use of high-quality accounting standards across developed and developing countries (Zeff, 2012).

A strong financial reporting system is dependent on interconnected socio-political and economic infrastructures such as the adequacy of the rule of law, enforcement quality, quality of accounting standards, and capital market quality. With the spread of IFRS across jurisdictions with different accounting infrastructures (i.e., weak and strong), several studies (Chand, 2005; Zeff, 2012; Perera, 2012; Albu, Albu and Alexander, 2014; Hopper, Lassou and Soobaroyen, 2017) have questioned whether IFRS is really adopted to bring about the acclaimed benefits often ascribed to it by the IASB. Specifically, IFRS adoption by developing economies is perceived by several studies to be symbolic, as a mere legitimation strategy lacking proper commitment, because they lack necessary infrastructures (e.g., enforcement institution and developed capital market) to realise the potentials of IFRS (Mir and Rahaman, 2005; Chand, 2005; Carneiro, Rodrigues and Craig, 2017). Their adoption of IFRS is often a response to external pressure from the World Bank and IMF (Irvine, 2008; Albu and Albu, 2012; Hassan, Rankin and Lu, 2014).

However, in some developing countries including Nigeria, there have been substantial efforts made to build some supporting infrastructures (e.g., the establishment of the Financial Reporting Council of Nigeria and the reform of professional accounting education) to ensure that the adoption of IFRS is substantive. While not all supporting infrastructures have been overhauled[4], it would be interesting to investigate whether the reforms made are significant in ensuring substantive adoption of IFRS by Nigerian companies. The result of this inquiry is particularly important for policy making, not only in Nigeria but also in other developing countries, as a possible model to be adopted as a part of a longer-term plan of reforming other supporting infrastructures.

[4] For example, the rule of law is still weak and corruption is still very high.

2.1 Statement of the Problem

The establishment of an enforcement institution and the reform of professional accounting bodies in many developing countries involve substantial costs and efforts. For example, the World Bank gave a grant of $200,000 to the Bangladeshi Government in 1999 to enhance the institutional capacity of the Institute of Chartered Accountants of Bangladesh (Mir and Rahaman, 2005). Similarly, in Nigeria, the World Bank gave a grant of $485,000[5] to reform the institutional capacity of the Institute of Chartered Accountants of Nigeria. Listed Nigerian firms and registered professionals that are connected with the preparation of financial statements also pay annual subscriptions to the FRCN. Furthermore, the staff of the FRCN are public officers that are paid salary and pension by the Nigerian government. These costs are enormous and can be channelled to alternative productive uses if the purpose for all these reforms are not achieved. Thus, are these reforms meeting the purpose for which they have been made (i.e., substantive adoption of IFRS)? This is an important question that needs to be answered.

The reliability of financial statement, as being a true reflection of the summary of the day to day business transactions of a firm, is dependent on the reliability of the underlying data and structure (e.g., internal control). 'IFRS-based' financial statements can only be deemed to be IFRS-based if IFRS data forms part of the daily routine of the business. This means that IFRS data such as fair value, impairment test of assets, and value-in-use are captured by the accounting system, and structures (e.g., effective internal control system) are in place to ensure IFRSs are complied with (Wilford, 2016). Ultimately, internal reports to the management must reflect IFRS information (PwC, 2004). If these structures are not in place in a firm, any IFRS-based financial statement from such firm will not be reliable. A workaround approach, where IFRS information is captured at one point in time (usually at year end), is usually adopted by such firms in preparing IFRS-based statements. Whereas such approach shows that IFRS is not integrated into the accounting system of the company. The consequence of this is that any decision made based on such financial statement may be misleading.

This study aims to address the issues related to the institutionalisation of IFRS across the three levels of social order in Nigeria and examine the outcome of the process. The objectives of the study and related research questions are stated below.

[5] Nigeria: P121511 - Capacity Strengthening of ICAN to Support National and Regional Accountancy Development, IDF Grant No. TF097436. Available at http://projects.worldbank.org/procurement/noticeoverview?id=OP00017093&lang=en&print=Y

2.3 Objective of the Study

The objective of this study is to examine the process of institutionalising IFRS in Nigeria across the three levels of social order, and the role played by the establishment of the FRCN and the professional accounting education reform. Secondly, the study will also examine whether these reforms lead to substantive adoption of IFRS by Nigerian listed firms (i.e., whether it is used for internal reporting). These research objectives are achieved by answering the following research questions:

i) Who are the agents and what type of isomorphic pressure do they exert at the macro level to institutionalise IFRS?

ii) Who are the agents and what type of isomorphic pressure do they exert at the meso level to institutionalise IFRS?

iii) Is IFRS substantively adopted (used for internal reporting) by Nigerian firms?

iv) Who are the agents and what type of isomorphic pressure do they exert at the micro level to institutionalise IFRS?

2.4 Significance of the Study

This is the first study, as far as the researcher is aware, that investigates whether IFRS is substantively adopted (when used for internal reporting) and if so, the processes leading to its substantive adoption in a developing country context (i.e., Nigeria).

Although some recent studies on the institutionalisation of IFRS in developing countries have been conducted, much of these studies (e.g., Mir and Rahaman, 2005; Irvine, 2008; Albu and Albu, 2012; Albu et al., 2014; Mantzari, Sigalas and Hines, 2017) have concentrated on the outcome of institutionalisation rather than the process. The process of institutionalisation is a corollary to its outcome, so it is important to examine the procedures that lead to the outcome in order to make informed policies. Secondly, most studies have focused on the symbolic adoption of IFRS in developing countries, while this study focuses on how the reform of accounting infrastructures may lead to substantive adoption of IFRS in Nigeria.

2.5 Contextual Framework

2.5.1 Accounting development in Nigeria

The institutionalisation of IFRS in Nigeria becomes more comprehensible if the historical background of accounting practice in Nigeria is explored. Modern accounting in Nigeria was a British import through the colonisation of the country. The halt, after more than 300 years, in slave trade and the subsequent growth in agricultural produce led to the ceding of Lagos in 1861 by the then Oba (king) Dosunmu (Wallace, 1992). This transition

informed the need for the modern practice of accounting to cope with the new form of trade. In 1905, Charles Ernest Dale, the first qualified accountant (Incorporated Accountant[6]) arrived in Nigeria as the financial commissioner and treasurer to the colonial government. While the British government laid down no infrastructure for the development and sustainability of modern accounting practices in Nigeria, the agitation for self-rule towards 1957 affected the accounting profession as well. The Companies Ordinance of 1922 provided that registered companies prepare balance sheets, which must be audited by auditors approved by a supervising Minister. Approved auditor status was based on the possession of a practicing certificate issued by the professional accountancy bodies in the UK or serving in the government audit department for not less than 15 years and having passed the intermediate level of the examinations of the UK accountancy bodies. Obviously, many Nigerians did not have these opportunities and were relegated to performing routine jobs as clerks or some other office duties (Wallace, 1992).

The first qualified accountant in Nigeria was Mr Benjamin Bankole Akinpelu Osundiya (Wallace 1992). He qualified with the London Corporation of Accountants and the Association of Certified Accountants in 1928 and 1929 respectively. However, till his death in 1957, he was neither employed as an accountant nor recognised as an approved auditor. As at independence in 1960, there were 41 indigenous qualified accountants in Nigeria. The composition of their professional bodies is as follows:

Cost and Work Accountants	3
Municipal Treasurers and Accountants	1
Certified Accountants	22
Chartered Accountants	15

There was a surge in the growth of expatriate firms with the "coming of development plans and political independence in the 1950s and 1960s" (Wallace, 1992, p. 30), as Nigerians were not recruited as accountants and the qualified accountants amongst them were also limited in number. The expatriate firms initially worked over a short cycle with a partner coming to Nigeria for short-term audits. But as businesses grew, there was a need to have local offices in Nigeria. The first of such transnational audit firms to come to Nigeria was Lewis and Mounsey & Co (LMC) in 1905 (Wallace, 1992). LMC was short-lived as the firm mainly served the tin mining companies. Thus, following

[6] The Society of Accountants was founded in England in 1885, became Society of Incorporated Accountants and Auditors in 1908 through 1954 and Society of Incorporated Accountants from 1954 to 1957. It eventually merged with ICAEW in 1957.

the decline in tin mining alongside the appointment of supervising agents and internal auditors (including chartered accountants) by businesses, there was less need for LMC's expertise. The West African Services offered accounting services (such as bookkeeping and internal audit services) to businesses whose owners were not in Nigeria. West African Services was acquired by Cassleton Elliot in 1929 following the latter's appointment as the auditor of Amalgamated Tin Mines of Nigeria in 1928. In 1949, Pannell, Crewson and Hardy (now Pannell Kerr Forster- PKF) and Midgley, Snelling and Barnes opened offices in Nigeria, while Cooper Brothers & Co came in 1953. It is worth mentioning that none of these accountancy firms appointed a Nigerian as a partner in their firms up to 1966. With these "extra territorial" (Wallace, 1992) firms obviously in charge of accountancy and audit practices in Nigeria, it will not be inconceivable to say that many qualified Nigerian accountants experienced difficulty in getting audit jobs.

In 1957, Nigerians and expatriates that were members of the ACCA (Associate Certified and Corporate Accountants) formed a local branch of the professional accountancy body and they gained recognition of the UK body in 1960. But the sustainability of the new body suffered from the same little recognition the mother body suffered in the UK. Thus, as suggestions were raised to bring all qualified Nigerians under one local umbrella body, the ACCA members gladly embraced the idea. In 1959, the Association of Accountants of Nigeria was formed to include both qualified Nigerians and expatriates across all professional accountancy bodies in existence in the UK. The association followed the Institute of Chartered Accountants of England and Wales (ICAEW) structure in all ramifications including examinations, codes of conduct for members, and the use of the designation 'Chartered Accountant' (Wallace, 1990). However, this move was non-consensual because expatriates and Nigerians that were qualified chartered accountants with ICAEW were unhappy because of the possible "dilution of the notion of chartered accountancy which might arise from admission of accountants who were not trained as chartered accountants and the prospect of being disadvantaged in the Nigerian market for auditing services which permitted easy access to non-Nigerian (especially British) chartered accountants" (Wallace, 1992, p. 36). Following this opposition, they sought to establish a rival body - the Institute of Chartered Accountants of Nigeria (ICAN) - comprising of qualified Nigerians with the ICAEW. Subsequently, ICAN absorbed the members of the Association of Accountants of Nigeria.

In 1965, the Nigerian Parliament passed the ICAN Act with relative ease for three major reasons. Firstly, the founders[7] of ICAN were known for their integrity and independence. Secondly, a desire to develop local capacity in sustaining independence, and thirdly, the notion that Nigerian accountants were capable of establishing a viable accountancy profession.

The ICAN Act of 1965 gave a number of privileges to the Institute, which led to some internal struggles between ICAN and some other accounting bodies that perceived such privileges as a basis for ICAN's monopoly of the accounting profession in Nigeria. "Up until the enactment of the ICAN Act, no organisation had the duty of regulating the accounting and auditing profession. Under the Companies Ordinance of 1922 anybody could act as an auditor to a company" (Uche, 2002, p. 480) except employees of the companies. However, the ICAN Act made only ICAN members appointable as auditors of companies in Nigeria as well as the control of education, training and certification of chartered accountants (Wallace, 1992). As a result of the monopoly of audit assignments that ICAN members now enjoy, many other Nigerians decided to join ICAN to enjoy the privilege together. However, some Nigerians of other accounting bodies that have no recognition by the international accounting bodies were not qualified for the membership of ICAN. These unrecognised bodies included the Association of International Accountants (AIA); The Society of Company and Commercial Accountants and; the British Association of Accountants and Auditors. The Nigeria Society of International Accountants (SIA), which comprised of the members of the Association of International Accountants of Nigeria, became a major threat to ICAN monopoly since their members were not admissible by ICAN. In 1972, the SIA wrote a petition to the Nigerian government demanding that the ICAN Act be modified to accept members of the SIA. ICAN swiftly responded to the petition arguing that such move would make "accountancy qualification obtainable in Nigeria [to] be considered inferior to that of any other country" (Anibaba, 1990, p. 150). Again, the plan to join ICAN by the SIA was thwarted by ICAN's rejoinder. After several failed attempts of persuasive efforts to join ICAN or make the Nigerian government amend the ICAN Act, the SIA "spearheaded the formation of a wider accounting body named the Association of National Accountants of Nigeria (ANAN)" in 1979 (Uche, 2002, p. 484).

ANAN members began a major push for the recognition of their association under the guise that the number of chartered accountants produced by ICAN was extremely

[7] These are Akintola Williams, F. C. O. Coker, Z. O. Ososanya and E. A. Osindero

below what the country needed for its increasing growth. Although this argument was true, ICAN devised several strategies to forestall the recognition of ANAN by the Nigerian government. The signing of the ANAN Decree[8] (1993) by the then Head of State, General Ibrahim Badamosi Babangida, brought an end to ICAN's monopoly. The duties assigned to ANAN are similar to the statutory duties of ICAN. Section 1 of the ANAN Act highlights the duties of the body as follows: (a) advancing the science of accountancy (in this Act referred to as 'the Profession'); (b) determining the standards of knowledge and skill, to be attained by persons seeking to become registered members of the profession and reviewing those standards, from time to time as circumstance may require; (c) promoting the highest standard of competence, practice and conduct among the members of the profession; (d) securing, in accordance with the provisions of this Act, the establishment and maintenance of register of members of the profession and the publication, from time to time, of lists of these persons; (e) doing such things as may advance and promote the advancement of the profession of accountancy in both the public and private sector of the economy; and (f) performing through the Council established under section 3 of this Act, the functions conferred on it by this Act".

Despite the statutory duties of ANAN being similar to the statutory duties of ICAN, the hegemony over the Nigerian accounting profession is still maintained by ICAN. ICAN has enjoyed international recognition as the major accounting professional body in Nigeria[9]. Furthermore, only ICAN members can audit listed companies on the Nigerian Stock Exchange (NSE).

2.5.2 The Nigerian Accounting Standards Board

The NASB was established by ICAN in 1982 and became a Federal Government parastatal in 1992[10]. The NASB was charged with setting and monitoring compliance with accounting standards in Nigeria. The board of the NASB comprised:

i. A chairman who shall be a professional accountant with considerable professional experience in accounting practice.
ii. Two representatives each of the following: Institute of Chartered Accountants of Nigeria; Association of National Accountants of Nigeria;

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[8] Now ANAN Act (1993)
[9] The International Federation of Accountants (IFAC) had recognised ICAN since 1977 as one of the founding members (https://www.ifac.org/about-ifac/membership/members/institute-chartered-accountants-nigeria), while ANAN was only admitted in 2014 (https://www.ifac.org/about-ifac/membership/members/association-national-accountants-nigeria)
[10] Under the then Federal Ministry of Trade and tourism (now Federal Ministry of Industry, Trade & Investment).

iii. A representative each of the following: Federal Ministry Commerce; Federal Ministry of Finance; Central Bank of Nigeria; Corporate Affairs Commission; Federal Inland Revenue Service; Nigerian Deposit Insurance Corporation; Securities and Exchange Commission; Accountant General of the Federation; Auditor General for the Federation; Chartered Institute of Taxation of Nigeria; Nigerian Accounting Association; Nigerian Association of Chambers of Commerce, Industries, Mines and Agriculture; and

iv. The Executive Secretary of the Board

Accountancy profession in Nigeria is based on the British system. For this reason, Nigerian Statement of Accounting Standards (SAS), as issued by the NASB, is just an abridged version of IASs. Table 2.1 depicts the Nigerian SASs and their IAS equivalence.

Table 2.1 Nigerian Statement of Accounting Standards before Full IFRS Adoption

Statement of Accounting Standards (SAS)	***Equivalent International Accounting Standards (IAS, now IFRS)***
SAS 1: Disclosures of Accounting Policies	*IAS 1*: Disclosure of Accounting Policies
SAS 2: Information to be Disclosed in Financial Statements.	*IAS 5*: Information to be Disclosed in Financial Statements.
SAS 3: Accounting for Property, Plant and Equipment	*IAS 16*: Accounting for Property, Plant and Equipment
SAS 4: Stocks	*IAS 2*: Valuation and Presentation of Inventories in the Context of Historical Cost System.
SAS 5: Construction Contracts	*IAS 11*: Accounting for Construction Contracts
SAS 6: Extra Ordinary Items and Prior Year Adjustments	*IAS 8*: Unusual and Prior Period Items and Changes in Accounting Policies
SAS 7: On Foreign Currency Conversions and Translations	*IAS 21*: Accounting for the Effects of Change in Foreign Exchange Rates.
SAS 8: Accounting for Employees' Retirement Benefits	*IAS 19*: Employee Benefits *IAS 26*: Accounting and Reporting by Retirement Benefits Plan
SAS 9: Accounting for Depreciation	*IAS 4*: Depreciation Accounting *IAS 25*: Accounting for Investments
SAS 10: Accounting for Banks and Non-Bank Financial Institutions (Part I)	*IAS 30*: Disclosures in the Financial Statements of Banks and Similar Financial Institutions
SAS 11: On Leases	*IAS 17*: Accounting for Leases
SAS 12: Accounting for Deferred Taxes	*IAS 12*: Accounting for Taxes on Income

SAS 13: Accounting for Investments	*IAS 25*: Accounting for Investments
SAS 14: Accounting in the Petroleum Industry: Upstream Activities	No equivalent IAS
SAS 15: Accounting by Banks and Non-Bank Financial Institutions (Part II)	*SAS 30*: Disclosures in the Financial Statements of Banks and Similar Institutions
SAS 16: Accounting for Insurance Business	No equivalent IAS
SAS 17: Accounting in the Petroleum Industry (Down Stream Activities)	No equivalent IAS
SAS 18: Statement of Cash flows	*IAS 7*: Cash Flow Statements
SAS 19: Accounting for Taxes	*IAS 12 (Revised)*: Income Taxes
SAS 20: Abridged Financial Statements	No equivalent IAS
SAS 21: Earnings Per Share	*IAS 33*: Earnings Per Share
SAS 22: Research and Development Costs	*IAS 38*: Intangible Assets
SAS 23: Provisions, Contingent Liabilities & Contingent Assets	*IAS 37*: Provisions, Contingent Liabilities & Contingent Assets
SAS 24: Segment Reporting	*IAS 14*: Segment Reporting
SAS 25: Telecommunications Activities	No equivalent IAS
SAS 26: Business Combinations	*IFRS 3*: Business Combinations
SAS 27: Consolidated and Separate Financial Statements	*IAS 27 (Revised)*: Consolidated and Separate Financial Statements
SAS 28: Investments in Associates	*IAS 28 (Revised)*: Investments in Associates
SAS 29: Interests in Joint Ventures	*IAS 31*: Interests in Joint Ventures
SAS 30: Interim Financial Reporting	*IAS 34*: Interim Financial Reporting

Source: NASB (2009)

2.5.3 Accounting reform in Nigeria and relevant stakeholders

The Nigerian capital market (i.e. the Nigerian Stock Exchange) plunged into crisis in 2008, leading to the erosion of investors fund to the tune of ₦2 trillion (approximately, 13.33 billion). The World Bank/IMF recommended the adoption of IFRS and the establishment of the FRCN to improve the financial statement of the Nigerian listed firms and resuscitate investors' confidence. They also recommended the reform of professional accounting education in Nigeria, particularly the Institute of Chartered Accountants of Nigeria. Unlike in many developing countries the move by the World Bank to reform accounting has met with stern opposition (e.g. Mir and Rahaman, 2005; Albu and Albu, 2012; Albu et al., 2014). In Nigeria, accounting reform by the World Bank seemed to abide by the existing accounting regulatory structures which would encourage a smooth

accounting reform. All the key stakeholders have maintained their usual role in the reform.

The Nigerian government has been in control of the NASB, which has been a parastatal of the government since has been 1992. Similarly, the FRCN was established as a parastatal of the Ministry of Industry, Trade and Investment. Accounting reform is not the first reform encouraged by the World Bank in Nigeria. In the past, the Nigerian government has been receptive to economic reforms advocated by the World Bank, such as the Structural Adjustment Programme (SAP) in 1986 and the due process in public procurement introduced in 2001. Hence accounting reform was not resisted by the Nigerian government.

The World Bank also recognised the hegemony of the Institute of Chartered Accountants of Nigeria, whose members have the sole authority to certify listed companies' accounts. Hence, the reform of accounting education was tailored towards the ICAN's training of chartered accountants. Furthermore, the structure of the defunct NASB was retained in the newly established FRCN. There was no meddling with the composition of its board which was a fusion of all relevant stakeholders. Also, the Statement of Accounting Standards (SAS) that was issued by the NASB borrowed significantly from the IASs. The expected knowledge gap upon the adoption of IFRS would not be wide.

Collectively, it is expected that the preservation of the existing accounting regulatory structures will encourage a less repulse to the World Bank's advocated accounting reform in Nigeria.

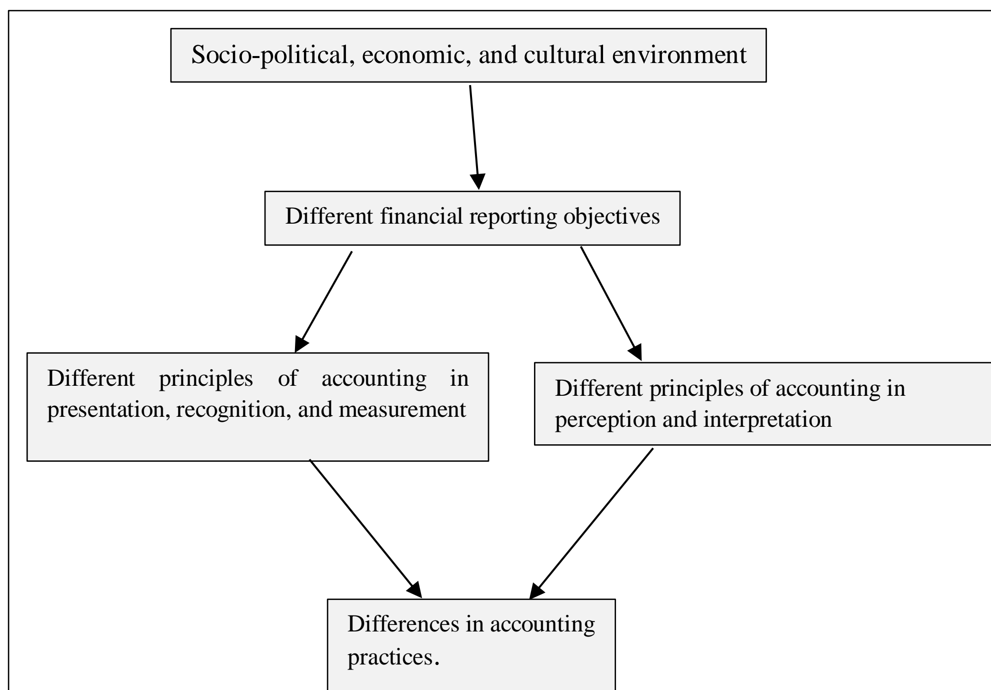
2.6 Conceptual Framework

2.6.1 Differences in Accounting Practices across Jurisdictions

Accounting is an 'economic language' (Haller and Walton, 2003, p.1) that evolves from the needs of the immediate environment in which it is spoken. Thus, accounting is often adapted to meet specific local purposes of the people and institutions 'speaking' it. Essentially, the language of accounting in a country will not usually be understood in another country[11] as the two are rooted in different cultures. More so, recipients of accounting information in the two countries are different.

[11] That is, as in natural language, a German will not understand 'come' as implying 'come' if he has never learnt English.

Figure 2.1 Reasons for Differences in Accounting Practices across Jurisdictions



Source: adapted from Haller &Walton (2003)

As illustrated in Figure 2.1, different socio-political, economic, and cultural environment lead to differences in financial reporting objectives, which translate to different accounting principles. These different principles in turn translate to different accounting practices.

A number of socio-political, economic, and cultural characteristics account for various accounting practices across different geographical boundaries. The tax system of a country influences accounting practices of the country. There are three categories of tax systems according to Roberts et al. (2008), namely; tax rules are entirely separated from accounting rules, accounting rules are used for tax purposes, and tax rules are used for accounting purposes. A typical example of the first category is the UK, where depreciation charge in the financial accounts is based on different methods[12] and has no effect on taxation (Nobes and Parker, 2016). For tax purposes, the capital allowance, which is a predetermined uniform rate, is a substitute for accounting depreciation and is governed by tax rules. On the contrary, in Germany, France, Italy, Belgium, Austria, and Japan, tax rules are used for financial reporting (Nobes and Parker, 2016; Roberts et al., 2008), as tax authorities are one of the key accounting information users. Consequently, assets are more rapidly depreciated, and companies are perceived as highly-geared in such tax-oriented jurisdictions (Haller and Walton, 2003). Where financial reporting rules are

[12] For example, straight line, reducing balance method and sum-of-the-years' digit method.

used for tax purposes, as done in most developing commonwealth countries (Roberts et al., 2008), financial accounts in these jurisdictions are adjusted to arrive at taxable profits. For example, depreciation is added back to net profits in Nigeria before calculating capital allowances.

Common law and code law countries differ in their accounting practices. In common law countries, accounting rules are designed to cater for the interest of shareholders who own the companies, which are managed by different individuals (managers). Truth and fairness is emphasised in these jurisdictions because business owners need to have accurate information about their businesses. Thus, more disclosure to shareholders and potential investors is a major consideration in these jurisdictions (Roberts et al., 2008). More so, accounting rules are often set by independent bodies from the government. On the contrary, in code law countries, the government develops detailed rules for accounting practices as part of the overall commercial regulation. However, disclosures by companies in code law countries are less detailed, as accounting objectives are dominated by the prudence principle (Haller and Walton, 2003).

Companies' finances may be raised from banks or the capital market. In the case of the former, the major consumers of accounting information are the banks themselves. For example, in Japan, where a 'main bank system' (Sheard, 1989) operates, the main bank is a key shareholder and also a lender to Japanese firms. In such jurisdictions, accounting conservatism is a desirable objective of financial reporting, since the intent of financial reporting is to calculate distributable profits to business owners without jeopardising the interest of other stakeholders of the company, especially the creditors (Walton et al., 2003). In the case of family-owned companies, transparency is less of a concern because the shareholders are largely composed of family members so there is lower information asymmetry. There is a tendency of less disclosures by such firms in their financial statements. A company whose shares are listed on the stock exchange, on the other hand, has a large pool of owners who are interested in knowing about the affairs of the firm. Such companies make more disclosures to get the public informed about their status (e.g., United States, Canada and Australia) (Walton, et al., 2003).

In a capitalist economy, where economic variables like prices, output, demand and supply are determined by market forces with varying degrees of government interference, profit determination and disclosure are important objectives of financial reporting (Roberts et al., 2008). On the contrary, in a centrally planned economy (e.g., China in 1980s), where economic variables are determined by a central authority, financial reporting objective is tailored to the planning and controlling of the economy.

Hence, physical units rather than profits are the major foci of accounting (Robert et al., 2008).

Industrial structure of a country is another cause of differences in accounting practices across jurisdictions. Developing countries that are dependent on agriculture are more interested in how best to account for farm produces[13], while countries where multinational companies are dominant are more interested in foreign currency translations. In hyperinflationary economies, such as Zimbabwe, inflation accounting is a major concern (Roberts et al., 2008). Similarly, in Japan and Korea where *keiretsu and chaebol*[14], respectively, are in operation, group accounting may have no significance (Nobes, 2014).

Culture is a significant determinant of variations in accounting practices (Ding, Jeanjean and Stolowy, 2005). According to Nobes and Parker (2006, p. 25) "culture includes a set of societal values that drives institutional form and practice". Several empirical evidence confirms this hypothesis. For example, Haniffa and Cooke (2002) find that the proportion of Malaysian directors, by race, on the board affects the extent of voluntary disclosure by Malaysian companies. Similarly, Tsakumis (2007) find that Greek accountants, as compared to US accountants, are more secretive regarding information disclosure. Ding et al. (2005) find uncertainty avoidance and individualism to be positively related to the extent of divergence in accounting principles across 52 countries.

The development of multinational corporations, the spread of trade liberalisation, and most importantly the Asian financial crisis of 1997, have led to the call for the use of high-quality accounting standards across developed and developing countries (Zeff, 2012). However, many events took place before the eventual development and adoption of the International Financial Reporting Standards (IFRS). The next section discusses these events.

2.6.2 Evolution of IFRS

The current adoption of IFRS by more than 100 countries is not a sudden event without its antecedents. Many events unfolded before IFRS became widely accepted across the globe, as the global language of accounting. This section discusses the antecedents to

[13] According to Roberts et al. (2008) IAS 41 Agriculture was developed as a result of pressure from developing countries.
[14] These two represent networks of companies with interlocking relationships that make it difficult to identify a holding company if any.

IASC's creation, the challenges faced by the IASC and its achievements, and the development of the IASB.

2.6.2.1 Antecedents to the creation of IASC and the development of IAS/IFRS

Prior to the call for the unification of accounting practices across a multitude of geographic boundaries, each country individually developed its own rules that benchmarked its accounting practices. Often, these rules were based on the individual country's needs and characteristics or culture. For example, while the US and Canada use historical cost in valuing assets, Australia and New Zealand favour the revaluation model, while Japan's accounting practice was rather driven by income tax. A majority of the developing countries simply adopted the practices of their formal colonial masters (Zeff, 2012). However, the spread of international trade and foreign direct investments in the 1950s, and the increase in cross-border merger and acquisitions in the 1960s, which gave birth to multinational firms, created a rethink about the diversity of accounting practices, as multinational firms in different jurisdictions would have to prepare different financial reports in accordance with the accounting rules of each country they operate in. Sequel to these events, Henry Benson, a senior partner of Cooper Brothers & Co (later Coopers and Lybrand, and then PricewaterhouseCoopers) and the president of the Institute of Chartered Accountants in England and Wales (ICAEW) in 1966, formed the Accountants International Study Group (AISG) with the American Institute of Certified Public Accountants (AICPA), the Institute of Chartered Accountants of Scotland (ICAS), the Canadian Institute of Chartered Accountants (CICA), and the Institute of Chartered Accountants of Ireland. The AISG issued 20 booklets that compared accounting practices across the UK, the US, and Canada in order to unveil the diversity of accounting across jurisdictions and the need for harmonisation to cater for the new business structures (Camfferman and Zeff, 2007).

In 1973, Benson, with other accounting bodies' delegations around the globe[15], established the International Accounting Standards Committee (IASC) to promote the harmonisation of accounting practices and forestall "Germany's tax-oriented approach" (Zeff, 2012, p.808) that was gaining prominence among European Economic Community (EEC now EU) countries (Hopwood, 1994). Delegates were operating on a part-time basis, attending IASC's board meetings three to four times in a year. Delegates signed an agreement to influence their national standards setting bodies to adopt IASC standards.

[15] The countries involved are: United States, Canada, Australia, France, Germany, Netherlands, Japan, Mexico, UK, and Ireland.

The first three standards issued by IASC were on inventories, accounting policies disclosure, and consolidated financial statements. Quite a number of IASs had free choices[16] and this, among other issues, created challenges for the standards.

IASC received a boost in the 1980s, as some major companies adopted IAS for their financial statements' presentation. For example, Exxon and General Electric in the US, 100 listed firms in Canada, Sasebo Heavy Industries Co. in Japan in 1985, and South African Breweries in 1984. Furthermore, the number of delegates increased with the joining of Nigeria, South Africa, Italy, and Taiwan, with more than 40 delegates by 1987.

In 1987, the International Organisation of Securities Commissions (IOSCO)[17] tendered to the IASC that it would endorse IASs for its members' use if the following changes were made to existing standards already issued by IASC: elimination of accounting choices, ensure the IASs are sufficiently detailed, and ensure that the IASs contain adequate disclosure requirements (IOSCO, 1988, p.8).

Furthermore, in the 1990s, the German GAAP began to lose credibility due to the occurrence of some events. German multinationals had outgrown the traditional universal bank financing of companies in Germany. The universal banks sat on the board of the companies as a major shareholder and rendered all necessary loan financing. At this time, German companies did not need to rely on the stock market. However, as the financing needs of the multinationals grew, coupled with the merger of the East and West Germany, which created new clients that the banks needed to cater for, the financing needs of companies outgrew the banks' capacity. Following this development, Daimler-Benz AG[18] enlisted on the New York Stock Exchange to raise capital. The Exchange rule required the company to present its consolidated profits based on the US GAAP. On reconciling its German GAAP-based account to the US GAAP, its profit of DM0.6 billion under the German GAAP translated to DM1.8 billion loss under the US GAAP. This event showcased the fact that the US GAAP presented the economic situation of a company better than the German GAAP.

The ability of Deutshe Telekom in raising $13 billion worth of equity from its IPO in 1996 further exacerbated the need for more capital market-focused accounting standards rather than the German GAAP that favoured conservative accounting, as a requirement for loan financing from the universal banks.

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[16] For example, IAS 2 (inventory) allowed FIFO, LIFO, weighted average and base stock method.
[17] IOSCO is a confederation of regulators of securities exchanges across the globe established in 1983.
[18] Europe's largest automobile company (Zeff,2012)

These two events, coupled with the growing interest in the creation of a viable European capital market, induced the need for the adoption of the IAS. The alternative – US GAAP – to IAS was not called for because it is an American-based standard and it is overly voluminous and too detailed (Zeff, 2012).

2.6.2.2 Challenges faced by the IASC

The first challenge, probably, faced by the IASC was that many of its delegates were unable to influence their country's accounting standard setting bodies, as they were majorly from accounting professional institutions. Furthermore, the IASs could not address the diversity in its board. Board members from Anglo-American countries believed IASs were inferior to their standards, and for other countries, IASs failed to address the tax orientation of their accounting system.

The desire for the worldwide acceptance of IAS was further crippled by the unexpected demands tendered by the International Organisation of Securities Commission (IOSCO) to the IASC. The initial promise by the IOSCO of recommending IAS to its members upon IASC's fulfilment of aforementioned conditions was not met, as IOSCO demanded further improvements to the IASs. In 1993, when the revised ten standards already issued by IASC were submitted to IOSCO, the latter, although satisfied with IASC's progress, demanded for further improvements and for new standards that address issues germane to intangible assets, earnings per share, interim reporting, employee benefits, financial instrument, and discontinued operations. The IASC agreed with these demands and promised to get back to IOSCO by 1999.

A new task for the IASC was to address the expectations of SEC regarding the quality of the IASs. In 1996, the SEC publicly pronounced the characteristics it expects the IASs to have:

i) The standards must be comprehensive and based on the generally accepted principles of accounting;
ii) They must be high-quality standards geared toward improving comparability and transparency, and must provide for full disclosure; and
iii) There must be rigorous interpretation and application.

2.6.2.3 Achievements of IASC in the development of IFRS

By the year 2000, the IOSCO endorsed the use of IASs by member regulators, which significantly enhanced the IASC's position across the globe. Furthermore, in the same year, the European Commission advised that companies listed in the EU should begin

using the IAS by 2005. The Commission argues that the objective of the pronouncement is that "the policy should ensure that securities can be traded on the EU and international financial markets on the basis of a single set of financial reporting standards" (EU Financial Reporting Strategy, para. 7). In 2002, the IAS Regulation was approved by the European Parliament.

The Norwalk Agreement was an MoU signed by the SEC and the IASB (IASC became IASB in the year 2000) to reduce the extent of divergence between the IASs and the US GAAP. The agreement, which was achieved in 2007, also included a settlement that foreign companies listed in the US can file their financial statements using the IFRS without filing a reconciliation with the US GAAP (Arnold, 2012). In May 2008, the AICPA designated the IASB as an alternative accounting standard setting body on which its members can rely on for conducting audit. As such, private US companies not listed on the stock exchange could adopt IFRS for the preparation of their financial statements (Zeff, 2012).

Following the adoption of IFRS by companies in the EU from 2005, many countries took a similar step to fully adopt IFRS or converge substantially with some tweaks. For example, the SIX Swiss Exchange permitted companies on its main board to adopt the IFRS or the US GAAP for financial reporting; Japan, in 2009, allowed listed companies with international operations to begin using IFRS from 2010; and China has moved substantially towards full convergence. While many developing countries have also fully or partly adopted or converged with IFRS, the spread of IFRS to these countries took a different dimension from those of the developed world. Some of the issues that led to these developing countries to adopt the IFRS are considered next section.

Table 2.2 summarises the milestones in the IASC's journey towards developing the International Financial Reporting Standards.

Table 2:2 Milestones in the Development of IFRS

Year	Achievements
1966	Accountants International Study Group (AISG) was formed.
1973	International Accounting Standards Committee (IASC).
1975	The first IAS on the disclosure of accounting policies was issued.
Between 1975-1987	25 additional standards were issued.
1987	IOSCO promised the endorsement of IASs.
1993	IOSCO required further improvements to IASs before endorsement.

1996	The U.S. SEC published its expectations, with regard to quality, of IASC's standards.
2000	The Norwalk Agreement was signed, IOSCO endorsed IASs and the European Commission requested member states to comply with IASs by 2005.
2001	IASC became IASB
2002	The IAS Regulation was approved by the European Parliament.
2003	IASB issued the first IFRS on First-time Adoption of International Financial Reporting Standards.
2005	Member states of the EU adopted IFRS.
2007	Foreign companies listed in the U.S. were allowed not to file a reconciliation with the U.S. GAAP.
2008	AICPA designated the IASB as an alternative accounting standard setting body on which its members can rely on for conducting audit.
2009	Japan allowed listed companies with international operations to begin using IFRS effective 2010. China moved substantially towards full convergence.

Source: Author's summary

2.6.3 IFRS adoption by Developing Countries

The adoption of IFRS by developing countries, like their developed counterparts, was a gradual process, dating back to the East Asian financial crisis of 1997. Beginning in Thailand, it spreads to Malaysia, Singapore, and the Philippines, through contagion. In August 1997, Indonesia had its own share and by October of the same year, the Hong Kong stock market crashed, making the Dow Jones Industrial Average record its worst point loss in history. This led to the suspension of trading on the US stock market (Arnold, 2012). By November, the crisis proliferated to Korea and by August 1998, the Dow Jones Industrial Average records its second worst loss in history following Russia's default on its debt. In September 1998, the crisis spread to Latin America and the US hedge fund and long-term capital portfolio collapsed, while the EU and the US stock market plunged.

To curb the spate of the crisis and future reoccurrence, the finance ministers and the central bank governors of the G-7[19] met on October 1998 to deliberate on how to ensure stability in the international financial system. There were three models suggested by economist, analysts, and finance ministers (Arnold, 2012) in the wake of the East Asian crisis. The first model emphasized the placement of constraints on capital flight by governments or "placing constraints on cross-border financial speculation" (Arnold,

[19] The G-7 are France, United Kingdom, United States, Canada, Germany, Italy and Japan.

2012, p. 364). Malaysia adopted this method during the East Asian financial crisis in 1998. The second model proposed the establishment of stronger international institutions (e.g., a body of international regulators) that can ensure the stability of the international financial system (Kaufman, 1998; Eatwell and Taylor, 2000) and the creation of Asian Monetary Fund advocated by Japan (Lipscy, 2003). The third model advocated the restructuring of financial infrastructures in emerging economies to align them with international best practices. Exponents of the third model blamed the Asian crisis on the emerging economies' lack of transparency and poor governance structures. The G-7 chose the third model, as it is less radical and does not go against financial liberalization, which has always been advocated by the 'western countries'.

In February 1999, the G-7 established the Financial Stability Forum (FSF) to work on the way forward with the third model. The FSF drafted 43 standards in September 1998, initially without the inclusion of accounting standards, but was later increased to 64, inclusive of the accounting standards. From the 64 standards, 12[20] (now 14) standards (accounting standards inclusive) designated as essential to healthy international financial system were culled. Earlier, the FSF had directed the IOSCO, International Association of Insurance Supervisors (IAIS), and the Basel Committee on Banking Supervision (Arnold, 2012) to conduct a review of the IASs. Subsequently, the FSF charged the IMF and the World Bank with ensuring that the emerging economies follow these international accounting and auditing standards. Therefore, the two institutions monitor emerging economies' compliance by comparing their accounting standards with the IASs. The results of the exercise are then published in the Reports on Observance of Standards and Codes (ROSC), Accounting and Auditing. Often the reports recommend and urge the developing countries to adopt the IAS and International Standards on Auditing (ISA) (Zeff, 2012). More than 80 of this exercise across developing countries are said to have been conducted (Zeff, 2012).

[20] These standards are: Code of Good Practices on Transparency in Monetary and Financial Policies, Code of Good Practices on Fiscal Transparency; Special Data Dissemination Standard; Enhanced General Data Dissemination Systems; IFRS, ISA, G20/OECD Principles of Corporate Governance; Insolvency and Creditor Rights, Insurance Core Principles, Standards, Guidance and Assessment Methodology; Core Principles of Effective Banking Supervision; Objectives and Principles of Securities Regulation; FATF Recommendations on Combating Money Laundering and the Financing of Terrorism; Recommendations for Securities Settlements Systems and Core Principles for Systematically Important Payment Systems; IADI Core Principles for Effective Deposit Insurance Systems; Principles for Financial Market Infrastructure (www.fsb.org/what-we-do/about-the-compendium of standards/key_standards/?page_moved=1).

2.6.3.1 Factors affecting IFRS adoption by developing countries

The development of IFRS is no doubt rooted in the Anglo-American orientation of accounting. With its fair-value model preconditioned on the existence of a robust capital market, the spread of IFRS to developing countries, characterised by less active capital market, is bound to face and pose many challenges, which ultimately may deter its aim of harmonisation (i.e., reducing cross-country differences in accounting, Choi, Frost and Meek, 2002). Moreover, 'substantive' adoption of IFRS is dependent on various accounting infrastructures, which are often weak or non-existent in developing countries (Chand and White, 2007). Given these problems, there have been different patterns of (Chand and Patel, 2008) and motivations for (Ball, Robin, and Wu, 2003) the adoption of IFRS across developing countries. Developing countries are not essentially influenced by the desire to be more transparent, as envisaged by the international community.

Chand and Patel (2008) explain that despite the declaration by Papua New Guinea Accounting Standards Board to have adopted IFRS in its entirety, compliance with the standards is still very low due to some reasons. Firstly, the adoption of IFRS was to portray a more transparent image of the country after suffering a downturn in its economy due to high level of corruption. Secondly, the country does not have any proper accounting standards, so IFRS was an easy and cheap option. Thirdly, except for the staff of the Big 4 audit firms, staff of local audit firms do not have adequate knowledge of IFRS.

In Fiji, the Fiji Institute of Accountants selectively adopted IFRS in 2002 and deferred the adoption of more complex standards or standards deemed not to be relevant to Fiji to a later date. Although enforcement by an independent regulator is non-existent, Fiji's compliance with its IFRS-based accounting standards is deemed satisfactory (Chand and Patel, 2008). This is largely due to the fact that Fiji's standards have always been based on IAS, its pool of accounting staff are trained based on IFRS, and the large companies in the country are audited by the big 4 audit firms.

Romania presents a case of a clash between accounting culture and external influence on IFRS adoption. Romania had been using the French accounting model that emphasised tax-oriented accounting and creditor protection coupled with low transparency. Romania agreed to the World Bank's pressure to adopt IFRS in 1997/1998 in order to attract foreign investment (Albu, Albu and Alexander, 2014) but did not change its existing accounting model (Albu, Albu, Bunea, Calu and Girbina, 2011). The reason for this 'symbolic' adoption of IFRS is not far-fetched. IFRS is useful for countries

with sophisticated capital market, highly investor-oriented, and have complex business structures, which are all alien to the Romanian environment.

In Bangladesh, resistance from rival professional accountancy bodies and the weakness of enforcement institutions crippled a substantive adoption of IFRS. The Government of Bangladesh received $200,000 from the World Bank for the development of accounting and auditing standards in Bangladesh. Subsequently, the Securities and Exchange Commission empowered the Institute of Chartered Accountants of Bangladesh (ICAB) to adopt IAS without involving any of the members of the Institute of Cost and Management Accountants of Bangladesh (ICMAB). The ICMAB revolted by non-compliance, while the ICAB was rather weak to enforce the IAS due to conflicts of interest, as they audit the same accounts they have prepared (Mir and Rahaman, 2005). Furthermore, Nurunnabi (2015) opine that corruption is an inhibiting factor against IAS adoption in Bangladesh.

While recording an improvement in disclosures following IFRS adoption in Turkey, Misirlioğlu, Tucker and Yukselturk (2013) find that the level of compliance with IFRS is still constrained by Turkey's tax-oriented accounting model, lack of enforcement, inadequate corporate governance structure, and weak management information systems.

According to Perumpal, Evans, Agarwal and Amenkhienan (2009), Indian accounting standards still exhibit a large departure from IFRS despite the declaration by the Institute of Chartered Accountants of India to comply with it, beginning July 2007. This is due to both political and social factors (Perumpal et al., 2009).

The UAE in a similar vein has responded to the global pressure to adopt IFRS. Motivated by the desire to increase FDIs into the country, the government embarked on several institutional reforms[21], the adoption of IFRS inclusive (Irvine, 2008). The growth of international businesses in the country and the normative isomorphic pressures from the big 4 accountancy firms that have operated in the country for decades inevitably led to the country's adoption of IFRS. Following the same trend with other developing countries, the implementation of IFRS has been rather selective. IFRS is only mandatory for companies listed on the Dubai International Financial Exchange (DIFX now NASDAQ Dubai). Companies not listed on the DIFX and non-banking companies were not required to use IFRS as at 2008, but all companies have recently been required to comply with IFRS from July 2016. However, Irvine (2008) argue that "the culture of

[21] Dubai International Financial Centre (DIFC) was created in 2005 to open up access for international business activities. Many free trade zones were also established making 75% of imports into the UAE duty free.

secrecy common in countries that have not previously been required to report financial information to a regulatory body" will likely forestall the implementation of IFRS (p. 137).

Another interesting case is that of Iraq, a centrally planned economy, whereby accounting largely serves the central planning system. The Iraqi Board of Accounting and Auditing Standards, established in 1988, issued 14 standards that were in consonance with the IAS yet significantly different. Following the US invasion of Iraq in 2003, the US CPA was commissioned to set the stage for a liberal economy in Iraq in 2004 (Hassan, Rankin and Lu, 2014). Among other reforms was the introduction of IFRS that was made mandatory for all listed firms. However, given the country's culture, which was rooted in code law and the underdevelopment of its accounting profession and capital market, the implementation of IFRS is yet unachievable.

Peng and Bewley (2010) find that the Chinese GAAP departs from the requirement of IFRS for non-financial long-term assets because of the peculiar characteristics of China's environment. In the same vein, Baker, Biondi and Zhang (2010) argue that the conflicting logic of satisfying global capital market by the IASB and of "industrial reorganisation" (p. 107) by China creates a disharmony between IFRS and Chinese GAAP. For example, China recognises two methods of consolidation while the IASB only recognises the acquisition method.

Carneiro et al. (2017) find that full adoption of IFRS by the 13 countries that compose the Group of Latin American Accounting Standards Setters (GLASS) will be difficult, as many of these countries still supplement IFRS with local standards for "micro-entities and cooperatives" (p. 1). The reasons they adduce for this difficulty in fully adopting IFRS by these countries include the lack of well-trained accountants, inadequate enforcement mechanisms, tax-oriented accounting systems, and the peculiarity of banks and insurance companies.

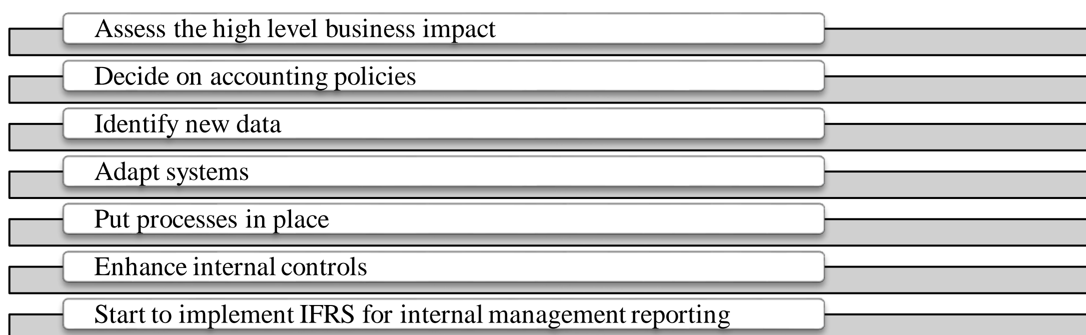
The pressure from the World Bank, IMF, the big 4 accountancy firms, and multinational corporations are the major factors influencing developing countries' adoption of IFRS (Hopper et al., 2017). Nonetheless other motivating factors that influence the adoption and implementation of IFRS have been identified in the literature. Bova and Perera (2012) find that while Kenya lacks the necessary resources to enforce compliance with IFRS, public firms listed on the stock exchange rather than private firms comply with IFRS requirements. They attribute this to the existence of foreign ownership in the listed companies.

According to Zeghal and Mhedhbi (2006) the literacy level of a country, alignment with Anglo-American culture, and the existence of capital markets are important factors pushing developing countries to adopt IFRS. They argue that literacy level influences the sophistication of accounting profession, which underpins the competence and expertise needed to apply IFRS. IFRS is an Anglo-American standard and communication in IASB is through English, thus, it is easier for developing countries with Anglo-American background to interpret and understand IFRS. Furthermore, most developing countries have relied on their former colonial masters for accounting standards though, often tweaked to fit local needs.

2.6.4 Institutionalisation of IFRS at the Organisational Level

IFRSs are institutions (i.e., rules) (Wysocki, 2011). Their institutionalisation refers to the degree of their embeddedness in an organisation. IFRS may be substantively or symbolically institutionalised. According to PwC (2004) "the best strategy for providing information of auditable quality is to fully integrate IFRS into the company's everyday systems and processes, so that IFRS information is generated as part of normal business routines" (p. 9). IFRS is considered to be substantively adopted when the organisations' systems and processes are adapted to generate IFRS information. According to PwC (2004), embedding IFRS into the organisations systems and processes involve seven critical steps. These steps are depicted in Figure below:

Figure 2.2 Steps in Embedding IFRS into Organisational Processes



Source: PricewaterhouseCoopers (2004)

From Figure 2.2, it becomes obvious that substantive adoption of IFRS is way beyond publishing financial statements that are IFRS-compliant. It entails the adaption of IT systems and processes to generate IFRS data[22]; the use of IFRS in budgeting and in

[22] IFRS data imply those measurements or estimates of assets and liabilities and disclosures that are required by IFRS but not the national GAAP. For example, fair values of assets and liabilities is an example of IFRS data.

internal reporting to the management; and the enhancement of an organisation's internal control to ensure reliability of generated IFRS data. Research into substantive adoption of IFRS that examine these internal details of firms are very scanty yet understanding these internal mechanisms facilitates any causal inference made regarding the effect of IFRS adoption on accounting quality and capital market outcomes.

For example, Wilford (2016) posits that internal controls are used to check and balance the rules and regulations embedded in accounting standards. In fact, Wilford (2016) opines that higher internal control quality translates to higher financial reporting quality. Thus, he argues that different accounting standards will need different internal control measures to regulate it. Given this argument, it is expected that internal control used by Nigerian listed firms prior to the adoption of IFRS must have changed sequel to IFRS adoption in order for the adoption to be substantive.

Similarly, Kaplan, Krishnan, Padman and Peters (1998) argue that the essence of accounting information system is to capture and process economic events and assess their impact on the financial position of a firm. Hence, the quality of information captured affects the quality of financial reports generated from the system. Regarding IFRS, if the data captured and processed by the accounting information system of Nigerian listed firms are not IFRS data, then the financial statements generated cannot be said to be a reliable IFRS-based financial statement.

On the other hand, a symbolic adoption of IFRS occurs when IFRS is not integrated into organisational systems and processes. This is referred to as decoupling. According to Dillard et al. (2004), decoupling occurs when a practice (in this case, IFRS adoption) is not embedded into the "managerial and operational processes" (p. 509) of an organisation. The survey of European companies by PwC (2004) shows that 'workaround' or 'short-term' (p. 21) measures are adopted in producing IFRS financial statements. These workaround solutions imply that the primary source of information for producing IFRS financial statements will not be IFRS-compliant. Thus, in such an instance, financial statements produced subsequent to IFRS adoption in a country cannot be considered IFRS-compliant financial statements. This would mean that accounting quality metrics calculated from such supposed IFRS financial statement are merely a reflection of the GAAP of the country. Any inference from such financial statements will thus be misleading and untrue.

The symbolic or substantive adoption of IFRS are the outcomes of the institutionalisation process. There are a number of factors, embedded in the

institutionalisation process, that lead these outcomes. These factors are considered in the next section.

2.6.4.1 Determinants of the Institutionalisation of IFRS

The degree of the embeddedness of IFRS into an organisation's systems and processes is dependent on a number of factors. Some of these determinants have been identified in the extant literature and are discussed below.

Firstly, IFRS adoption comes with attendant costs to organisations. These costs include the cost of training staff, IT upgrade cost, enhancement of internal controls cost, and audit cost (PwC, 2004). When these costs are perceived to be greater than the benefits, IFRS adoption may be decoupled. Albu and Albu (2012), in their study on Romania, found that one of the reasons for the noncompliance of most Romanian companies with IFRS, as required by law, was that they perceived the cost of compliance to be more than the benefits.

Secondly, IFRS adoption without strict enforcement leads to symbolic adoption of IFRS (Christensen et al., 2013; Al-Akra, Eddie and Ali, 2011; Nurunnabi, 2014; Kim 2016). Furthermore, regulatory authorities charged with enforcing IFRS must have well-trained personnel with sufficient experience in enforcement and monitoring (Albu and Albu, 2012). Apart from institutionalising IFRS in a country, strict accounting regulation on its own improves accounting quality (Yeoh, 2005; Hasan, Karim and Quayes, 2008).

Thirdly, the extent of a country's national GAAP's departure from IFRS and its economic philosophy determine the extent of the institutionalisation of IFRS in an organisation's systems and processes. Albu and Albu (2012) show that in Romania, an ex-communist society, IFRS was not substantively adopted because of the extent of departure of IFRS (principle-based) from Romania's national GAAP (rule-based).

Fourthly, the incentives that are peculiar to individual organisations are contributory factors to the institutionalisation of IFRS in an organisation. These incentives include the desire by a company to enlist on a foreign exchange for sourcing capital, and when a company is a subsidiary of a multinational firm that reports based on IFRS (Carneiro et al., 2017).

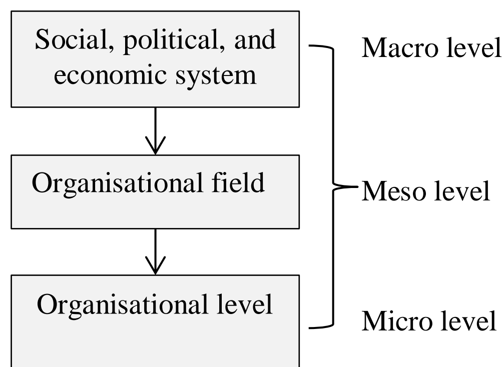
2.7 Neo-institutional Theory

Neo-institutionalism is a branch of institutional theory that views organisational structures and practices from a wider social, political, and economic context. The theory is a system-based theory (Deegan, 2002), which holds that organisational structures and practices are reflective of their institutional environment (DiMaggio and Powell, 1983;

Meyer and Rowan, 1977). There are norms, values, and beliefs that abound in organisations' immediate environment, which tend to shape social expectations about organisational behaviour. Thus, organisations align their structure and practices with social expectations in order to seek legitimacy. "Organisations are socially constituted and are subject of institutional processes" (Dillard et al., 2004, p. 508).

Legitimacy is described by Lindblom (1994) as "a condition or status which exists when an entity's value system is congruent with the value system of the larger social system of which the entity is a part. When disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy" (p. 2). When the value system of an entity is not in consonance with the societal value system, a legitimacy gap arises (Alrazi, de Villers and Van Staden, 2015), which threatens the existence of the organisation.

Figure 2.3 Three levels of institutionalisation



Source: Adapted from Dillard et al. (2004)

Wickramsinghe and Alawattage (2007) consider institutions as "socio-political and cultural practices which produce legitimacy (meaning and rules) for the conduct of organisations" (p.432). Institutions are established orders that are composed of "rule-bounded and standardised social practices" (Dillard et al., 2004). The process by which these institutions are learned and developed is called institutionalisation (Dillard et al., 2004). Institutional theory has usually focused on the outcome of institutionalisation. However, Dillard et al.'s (2004) model depicts institutionalisation as a three-step process involving a societal level of social, political, and economic system, which determines what is institutionalised at the second level. The second level is the organisational field, comprising of different organisations that "constitute a recognised area of institutional life: key suppliers, resource and product consumers, regulatory agencies and other organisations that produce similar services or products" (DiMaggio and Powell, 1983,

p.148). The organisational field subsequently determines what is institutionalised at each individual organisation (the third level). This process is depicted in the Figure 2.3.

An important aspect of Dillard et al.'s (2004) model is that the overarching societal norms or institutionalised practices are established at the social, political, and economic level. The norms or institutionalised practices are transferred to the organisational field by an agent or actor. From the organisational field, the institutionalised practices are further transferred to the organisational level by agents. These agents or actors are those responsible for the institutionalisation of norms or practices at each level of the institutionalisation process.

According to Dillard et al. (2004), organisations embrace institutionalised practices through a process called isomorphism. Isomorphism is a term that explains the institutionalisation process from three main angles (DiMaggio and Powell, 1983). It describes how organisations become homogenised as a result of facing the same environmental pressure (isomorphic pressure). Since all organisations will only survive when they align their value system with that of the society (i.e., legitimacy), responding to the same environmental pressure will likely bring about the same outcome. Hence, they tend to resemble one another in structure and practice. DiMaggio and Powell (1983) opine that responding to isomorphic pressures by organisations does not necessarily bring about efficiency in organisational practices rather, it is a legitimating action. Isomorphic pressure, according to DiMaggio and Powell (1983), comes from three sources: coercive, mimetic, and normative isomorphism.

Coercive isomorphism occurs when organisations are being forced or persuaded to adopt some practices by individuals, groups, or institutions the organisation depends on for survival or rather by way of cultural expectations from the society in which the organisation operates. For example, government regulations or directives (e.g., accounting standards, stock exchange listing requirements), which an organisation must follow. Mimetic isomorphism arises as a result of uncertainty. Poor understanding of organisational technologies, ambiguity in organisational goals and organisational problems that have "ambiguous causes and unclear solutions" (DiMaggio and Powell, 1983, p. 151) may make an organisation imitate another organisation's model. Such modelling may be intentional or unintentional. Normative isomorphism arises as a result of professionalisation (DiMaggio and Powell, 1983). Professionals belonging to an association tend to define their work procedures and structures such that individual members of the association work with the same procedures and structures in different organisations. The result is that their practices obviously become alike. An example of

this is the code of ethics and conduct of a professional body like ACCA, which guide each member of the professional body to behave in a defined way in accordance with the code.

There are two possible outcomes, albeit to a varying degree, from the institutionalisation process. An organisation may substantively adopt a practice or symbolically adopt it. A symbolic adoption implies that the organisation seeks to only maintain an appearance of having adopted a practice without necessarily making use of it in the internal working of the organisation. If the organisation adopts it to maintain appearance and makes use of it in the organisation, such adoption is said to be substantive. A symbolic adoption of practices is termed decoupling (Meyer and Rowan, 1977). "Decoupling is a situation where formal organisational structure or practice is separate and distinct from actual organisational practice" (Dillard et al., 2004, p. 509).

2.7.1 Studies on IFRS based on institutional theory

There are a number of studies that have adopted institutional theory in theorising IFRS-related issues. Irvine (2008) uses coercive, mimetic and normative isomorphism from institutional theory to explain the adoption of IFRS by the United Arab Emirates. The study of Judge, Li and Pinsker (2010) equally adopts institutional theory in explaining country-level adoption of IFRS. Crawford, Ferguson, Helliar and Power (2014) use institutional theory to explore an arrangement that sought to challenge the standard setting power of IASB by the EU around IFRS 8 adoption.

Rodrigues and Craig (2007) triangulate Hegalian dialectics with institutional theory's notion of decoupling and isomorphism, and Foucault's concept of power-knowledge to theorise the processes, effect, and possible direction of national accounting standards' convergence with IFRS.

Albu et al. (2011) used a combination of institutional theory and structuration theory in explaining IFRS implementation in Romania. Similarly, Albu et al. (2014) examine organisational responses to IFRS adoption in Romania, a code law country, using a triangulation of institutional theory with Oliver's (1991) strategic responses to institutional pressures.

Kossentini and Ben Othman (2014) combined institutional theory and economic network theory to understand the various factors that determine the adoption of IFRS by emerging economies. Hassan (2008) used institutional theory and Habermas theory in exploring accounting harmonisation in Egypt.

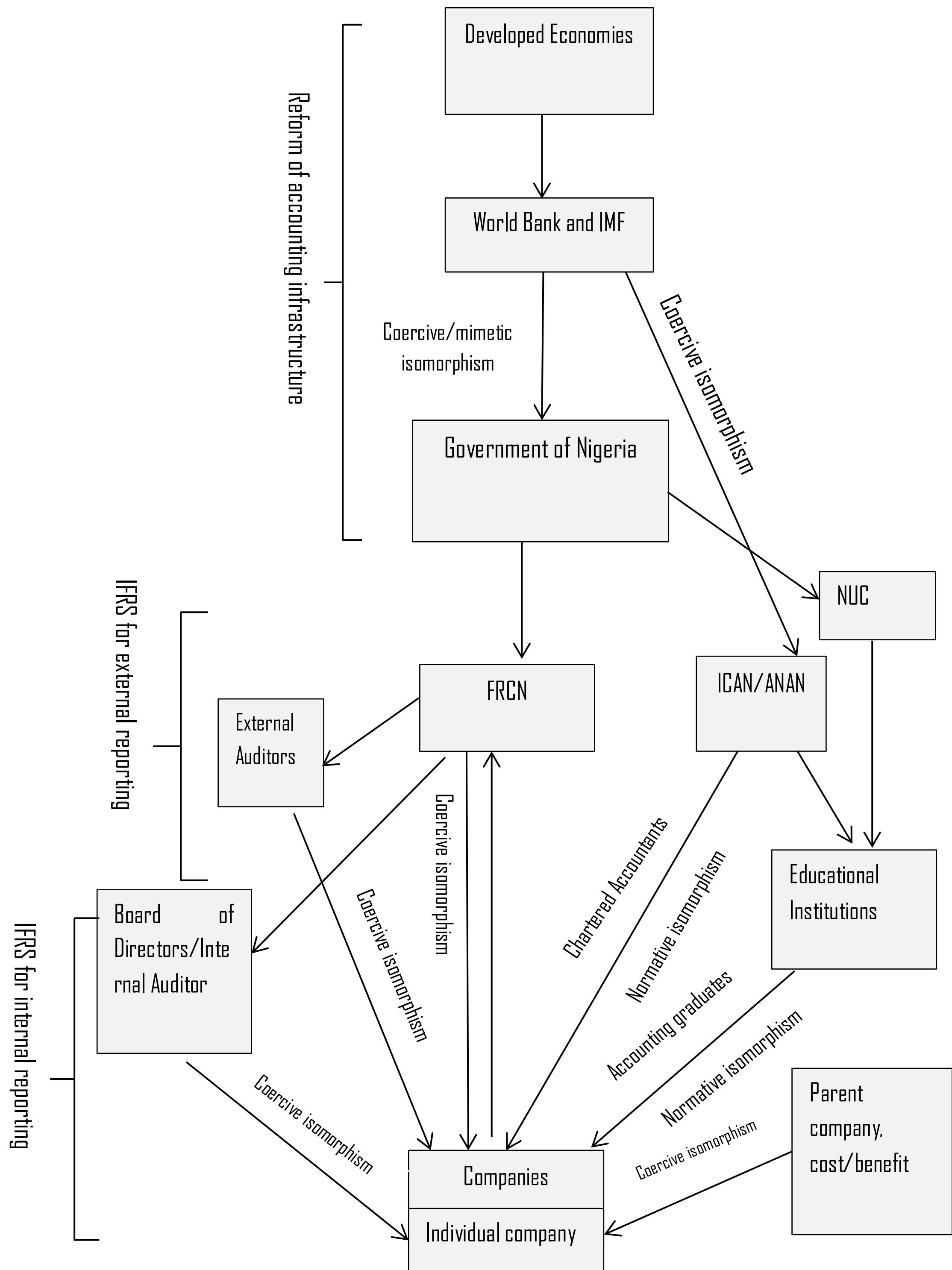
Carneiro et al. (2017) adopt institutional theory in situating their argument that conflicting institutional logics have prevented a full adoption of IFRS by members of the Group of Latin American Accounting Standards Setters (GLASS). Mantzari et al. (2017) triangulate institutional theory with hegemony to examine the factors that prompt non-listed firms to adopt IFRS in Greece.

This study adds to this body of literature by adopting Dillard et al.'s (2004) model of institutional theory to theorise the institutionalisation of IFRS in Nigeria. Although previous studies like Abu et al. (2011) have adopted Dillard et al.'s (2004) framework, the stepwise institutionalisation process has been largely ignored. This study fills this theoretical void. This process is particularly necessary in order to gain a rich understanding of the institutionalisation of IFRS in Nigeria.

The theoretical model, based on Dillard et al.'s (2004) institutional theory, is depicted in Figure 2.4, which shows the institutionalisation of IFRS in Nigeria at the macro, meso, and micro levels. The first level describes the institutionalisation of IFRS at the social, political, and economic level (i.e., how IFRS became adopted by Nigeria), while the second level addresses the institutionalisation of IFRS in the organisational field (comprising of all listed companies) by four agents, namely the FRCN, the ICAN/ANAN, external auditors and the Nigerian Universities Commission (NUC). The third level describes the institutionalisation of IFRS at the organisational level by different actors, including the FRCN, board of directors, internal auditors, and other factors.

At the first level, institutionalisation involves the acceptance by the Nigerian government to reform accounting infrastructure. The developed economies, through the agency of the World Bank and IMF, push the Nigerian government to adopt IFRS, as a high-quality accounting standard, establish the FRCN, and reform the accounting profession in Nigeria. Similarly, because of the global competition for attracting FDI by developing countries, the Nigerian government faces a mimetic isomorphic pressure to adopt IFRS and create the FRCN as required by the World Bank. The persuasion to reform ICAN was through monetary support, while making the adoption of IFRS and the establishment of FRCN conditions for accessing foreign investments and grants (coercive isomorphism) (ROSC, 2004; 2011).

Figure 2.4 Institutionalisation of IFRS in Nigeria using Dillard et al.'s Model



Key: FRCN: Financial Reporting Council; SEC: Securities and Exchange Commission; NSE: Nigeria Stock Exchange; ICAN: Institute of Chartered Accountants of Nigeria; ANAN: Association of National Accountants of Nigeria; NUC: Nigeria Universities Commission; CFO: Chief Finance Officer.

From the macro level, the institutionalisation of IFRS (for external reporting) is passed down to the organisational field in three complementary ways. Firstly, the FRCN exerts coercive isomorphic pressures on listed firms to ensure substantive adoption

through annual review of their financial statements. Secondly, the ICAN[23] made its syllabus IFRS-compliant and creates different avenues for existing members to upgrade their knowledge from Nigerian SAS to IFRS. This creates a normative isomorphic pressure, as newly recruited chartered accountants are bound to work with IFRS rather than the Nigerian SAS. Thirdly, higher educational institutions exert normative isomorphism on companies in a similar way as ICAN does, through their IFRS-trained accounting graduates who go on to work in companies. External auditors exert coercive isomorphic pressures on companies to ensure that their external reports comply with IFRS.

From the organisational field (meso level), the institutionalisation of IFRS (for internal reporting) is further transferred to each individual company (micro level) by multiple agents. The FRCN ensures that internal reports of companies are IFRS-compliant through quarterly review. The board of directors and the external auditors also facilitate the use of IFRS since the financial reports are signed in their names. Other factors, including parent companies' influence on their Nigerian subsidiaries and the cost-benefit of substantive adoption exert isomorphic pressures on individual companies. At this point, the individual companies may substantively adopt the IFRS or decouple it from their normal operation.

2.8 Research Methods and Data Analysis

2.8.1 Research Design

This study employs the case study research design. The case study research design entails an in-depth analysis of a phenomenon within a certain context, and often results in a rich analysis of complex problems. In a case study, the case must be the focus of analysis (Bryman, 2012; De Massis and Kotlar, 2014). A case can be a location, people, or process (De Massis and Kotlar, 2014). Miles and Huberman (1994) define a unit of analysis as "a phenomenon of some sort occurring in a bounded context" (p. 25). The unit of analysis of a study can be multiple where the phenomenon of interest occurs at multiple levels. In this study, the unit of analysis is multiple because institutionalisation of IFRS occurs at three levels of social order, based on Dillard et al.'s (2004) model, namely the macro level; the meso level; and the micro level.

A case study design is divided into three, namely exploratory case study, explanatory case study, and descriptive case study. Exploratory case study is adopted

[23] Most private firms employ chartered accountants in Nigeria. Thus, the influence of ANAN members on ensuring the adoption of IFRS by listed companies in Nigeria is not well known.

where the intent of the research is to understand how a phenomenon occurs. Explanatory case study entails answering a why question, while descriptive case study is appropriate when the intent is to establish the conviction that a research phenomenon is important (De Massis and Kotlar, 2014). This study addresses how IFRS is institutionalised in Nigeria at the three levels of social order and the outcome of this process. Hence, the type of case study adopted in this study is exploratory.

Nigeria is chosen for this study because there is no study as far as the researcher is aware that has examined how IFRS is institutionalised across the three levels of social order. Due to the recent accounting infrastructure reform in Nigeria, this setting offers a good opportunity for examining the institutionalisation of IFRS and the impact of the accounting infrastructure reform in the institutionalisation process.

2.8.2 Data gathering

Case study will often involve collection of data from multiple sources to ensure data credibility (Patton, 1990 cited in Braun and Clarke, 2006). Based on this notion, the researcher triangulates data from multiple sources in carrying out this study. Specifically, interviews were conducted, documents were analysed, and semi-structured questionnaire and unstructured questionnaire were sent out to respondents (see Table 2.4). In order to gain a fairly generalizable result[24], the sampling of the interviewees as well as the respondents to the questionnaire is heterogeneous (Robinson, 2014). Interviewees[25] include financial controllers, internal auditors, and accountants from different companies and industries, and senior auditors from different audit firms. To gain access to the interviewees, the researcher contacted a friend who has been in practice for more than seven years, who gave the contact details of the interviewees. The interviewees were initially contacted via phone and email for familiarity with the intent of the study and fixing a date for the interview.

A semi-structured interview was conducted with the aid of an interview protocol (see Appendix I). The themes and subthemes identified in Figure 2.5 were used to develop the questions. “The semi-structured interview involves prepared questions guided by the identified themes in a consistent and systematic manner interposed with probes designed

[24] According to De Massis and Kotlar (2014) generalisation in case study is not the same as statistical generalisation which is made to a study population. Rather, analytical generalisation is made “from empirical observation to theory” (p. 27).

[25] The researcher made several attempts to contact key officials of the FRCN. However, there was no response from the organisation. The researcher further attempted to contact the Secretary of the Council through his close friend, unfortunately, this attempt coincided with the period the Secretary was dismissed by the Nigerian government.

to elicit more elaborate responses" (Qu and Dumay, 2011, p. 246). The same interview guide was used for all the interviewees. However, given the flexibility afforded by the semi-structured interview, different responses were elicited. An unstructured questionnaire was also sent out to one of the interviewees who was not available for an oral interview (see Table 2.3, S/N 5).

Table 2.3 Interview Details

S/N	Position of interviewee	Highest Qualification	Industry	Interview medium/ Date	Duration	Retention medium
1.	Auditor 1: Senior Associate I	ACA	Big 4 audit firm	Phone 28/12/2016	43 minutes	Recorded
2.	Auditor 2: Audit Senior	ACA	Big 4 audit firm	Phone 10/12/2016	26 minutes	Recorded
3.	Auditor 3: Senior Associate II	ACA	Big 4 audit firm	Phone 12/12/2017	28 minutes	Not recorded/ Notes taken
4.	Auditor 4: Audit Supervisor	ACA	Mid-size audit firm with cross-border reach	Phone 07/01/2017	25 minutes	Recorded
5.	Auditor 5: Director (Advisory Services)	ACA	Mid-size audit firm with cross-border reach	Unstructured questionnaire 01/12/2016	Not applicable	Not applicable
6.	Financial controller I	ACA	Industrial goods	Phone 06/01/2017	40 minutes	Partly recoded/ Notes taken[26]
7.	Financial controller II	ACA, ACCA	Conglomerates	Phone 20/12/2016	34 minutes	Recorded
8.	Plant financial controller	ACA	Health	Phone 19/12/2016	27 minutes	Recorded
9.	Internal auditor I	ACA	Consumer goods	Phone 23/12/2016	23 minutes	Recorded
10.	Internal auditor II	ACA	Construction	Phone 18/01/2017	33 minutes	Recorded

[26] The initial phone recording during the first part of the interview was not saved by the recording app. The backup note taken was used instead.

Table 2.4 Questionnaire Respondents' Profiles

S/N	Position of respondents	Pseudo Name of Company	Highest Qualification	Industry
1	Financial Accountant	Property Plc	ACA	Construction/Real Estate
2.	Financial Controller	One Bank Plc	ACA	Financial Services
3	Chief Financial Officer	Ceetee Bank Plc	ACA	Financial Services
4	Chief Finance Officer	Capital Plc	ACA, CISA	Financial Services
5	Chief Audit Executive	Incorporated Plc	ACA, ACTI, ISSAN, ISACA	Financial Services
6	Chief Audit Executive	Pound Plc	MBA, ACA	Financial Services
7	Management Accountant	Insurance Plc	M.Sc., ACCA	Financial Services
8	Head of Finance	Loans Plc	ACA	Financial Services
9	Chief Financial Officer	Assurance Plc	M.Sc., ACA, ACCA	Financial Services
10	Head of Internal Audit	CO Plc	MBA, ACA	Financial Services
11	Internal Auditor	Health Plc	M.Sc., ACA	Healthcare
12	Management Accountant	Pharmaceutical Plc	ACA	Healthcare
13	Head of Finance and Accounts	Solutions Plc	ACA, ACCA	Information and Communications Technology
14	Chief Finance Officer	Biometric Plc	ACA, ACCA	Information and Communications Technology
15	Team Lead, Financial/Internal Control	BPN Plc	ACCA, CPFA, ACTI	Oil and Gas
16	Internal Control and Audit Supervisor	Aviation Fuel Plc	ACA	Oil and Gas
17	Chief Finance Officer	Transport Plc	M.Sc., ACA, ACTI	Services
18	Deputy Manager	Printing Plc	ACA	Services
19	Chief Finance Officer	Fast Food Plc	M.Sc., ACA	Services
20	Head of Internal Control and Audit	Logistics Plc	ACA, ACTI	Services

A total of 159 copies of semi-structured questionnaires with self-addressed envelopes were sent out to the listed companies that provided their addresses in their annual reports or on their websites. The questionnaire items (see Appendix II) were developed from the subthemes in Figure 2.5 and were dispatched via the Nigerian Postal Service. Many of the companies do not have valid email addresses, which limited the follow-up process. However, a reminder was sent out to some of these companies, but many did not respond to the reminder. Due to this difficulty, only 20 copies of these questionnaires were returned which equals approximately 13% response rate. The respondents to the questionnaire are Chief Financial Officers (CFOs), accountants, and auditors in different firms in different industries. Tables 2.3 and 2.4 depict the interview details and questionnaire respondents' profile, respectively.

Due to the historical[27] nature of the attempt by the World Bank, through the ROSC, to persuade the Nigerian government to create an enforcement mechanism and reform the accounting profession, the only available source of information were the ROSCs (2004; 2011). Issues that have historical configurations are best examined through documents (Bowen, 2009). Furthermore, these are the only documents, as far as the researcher is aware, that contain most of the details of the influence of the World Bank on the institutionalisation of IFRS in Nigeria. Other documents analysed are the FRCN regulatory decision on StanbicIBTC and the World Bank document on Capacity Strengthening of ICAN to Support National and Regional Accountancy Development.

2.8.3 Thematic analysis

This study adopts thematic analysis for analysing the data collected. Thematic analysis is a process of identifying, analysing, and conveying repeated patterns of meaning in a data set (Braun and Clarke, 2006). Such repeated patterns of meanings are called themes. According to Bryman (2012), "a theme is a category identified by the researcher, that relates to the research questions, builds on codes identified in the transcript or document and provides the researcher with a basis to have a theoretical understanding of the data" (p. 580). Themes are higher-order patterns of meanings compared to codes; notwithstanding, themes are generated from codes (Braun and Clarke, 2006). "Codes are the smallest units of analysis that capture interesting features of the data (potentially) relevant to the research question" (Clarke and Braun, 2017, p. 257).

[27] This attempt began with the conduct of the assessment of Nigeria's compliance with the international standards in 2004, through the ROSC (2004).

Thematic analysis is flexible and does not necessarily have to be underpinned by any ontological background. It is suitable for both large and small qualitative data sets and can be used for both data-driven (inductive) and theory-driven (deductive) analyses (Clarke and Braun, 2017). Thematic analysis is essentially embedded in all qualitative research method as all qualitative approaches involve "thematising meanings" (Holloway and Todres, 2003, p. 347).

While there is no standard stepwise procedure for engaging in thematic analysis, Braun and Clarke (2006) recommend some guidelines, which have been adopted by the researcher in this study. The guidelines are in no way static rules, and as argued by Braun and Clarke (2006), they are recursive. These guidelines are as follows:

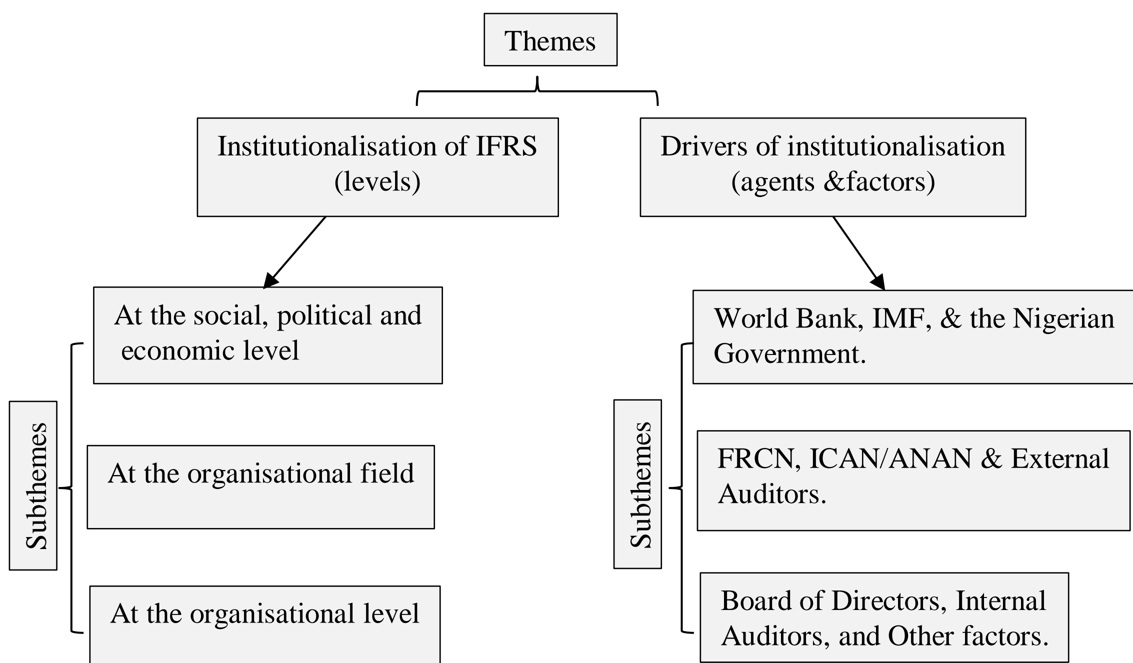
i. Data familiarisation through reading and re-reading of the data
ii. Initial coding
iii. Collation of codes under initial themes
iv. Generating a thematic map of the analysis
v. Reviewing themes for overlaps and relevance by defining and refining themes.
vi. Writing the report

According to Braun and Clarke (2006), the analysis itself is based on some initial decisions about how to proceed. Firstly, a theme does not necessarily have to be of frequent occurrence in the dataset but rather a theme is chosen for capturing important insights into the research questions. This latter argument is adopted in this study. Secondly, this study adopts a semantic rather than a latent approach in identifying themes. Semantic approach identifies themes based on the explicit meaning of the data. "Ideally, the analytic process involves a progression from description, where the data have simply been organized to show patterns in semantic content and summarized, to interpretation, where there is an attempt to theorize the significance of the patterns and their broader meanings and implications" (Paton 1990, cited in Braun and Clarke, 2006, p. 84). In the latent approach, beyond the explicit meaning of data, the underlying conceptualizations, assumptions, and ideas are explored. Thirdly, a decision relating to undertaking a rich description of the entire data set (mostly in exploratory research) or a detailed account of some themes and subthemes will have to be made. As the study has some specific research questions to answer, a detailed account of themes and subthemes is made. Finally, thematic analysis may be inductive or deductive. In inductive approach, thematic analysis is data-driven, as the researcher does not code while trying to fit in the data into a

preconceived analytical or coding frame. Deductive approach on the other hand tries to fit the data into a researcher's theoretical or analytic framework. Hence, a detailed analysis of the dataset that fit into the theory is made rather than a complete description of the data set. In this study, a 'theoretical thematic analysis' (Braun and Clarke, 2006, p. 84), following the deductive approach, is used since the intent of the researcher is to answer research questions within the ambit of Dillard et al.'s (2004) model of institutional theory.

Figure 2.5 presents the themes and subthemes developed by the researcher and used in analysing the data. Initial codes from which the below themes and subthemes were developed from include isomorphic pressure, agents, enforcement, and other factors.

Figure 2.5 Themes and Subthemes for Analysis



2.8.4 Data analysis

Based on thematic analysis, the data analysis is organised in accordance with the subthemes developed in Figure 2.5. However, at the end of the analysis of each subtheme, a summary of the findings in relation to the research question that is answered under the subtheme is provided. At the end of the whole analysis, the overall insight from the data is discussed.

Research Question 1: Who are the agents and what type of isomorphic pressure do they exert at the macro level to institutionalise IFRS?

2.8.4.1 Institutionalisation at the social, political, and economic level (macro level)

The institutionalisation at the macro level involves the push by the World Bank and IMF to ensure that the Nigerian government reforms accounting infrastructure of the country. Like many developing countries, Nigeria desires to attract foreign investment, grants and loans from different parts of the world and international financial institutions such as the World Bank and IMF. Since the World Bank and IMF push for the adoption of international best practices (including IFRS) in different spheres, under the pretext of strengthening the financial architecture of developing countries (Zeff, 2012; Hopper, Lassou and Soobaroyen, 2017), and as a condition for awarding loans and grants, Nigeria needs to hearken to their demands. According to the World Bank and IMF, it was the weakness in the developing countries' financial architecture that triggered the Asian financial crisis. According to the ROSC (2004):

> Nigeria is making efforts to attract foreign investments into the economy. Foreign direct investments in Nigeria exceeded US$1 billion in 2002. International investors require comparable financial information from countries competing for foreign investments. This requires that Nigerian corporate sector comply with globally acceptable standards and codes (p. 1).

Nigeria's accounting infrastructure is weak in its essence and is further weakened by corruption (ROSC, 2004). This gave the World Bank and IMF more impetus to persuade Nigeria to adopt international best practices as stated in the report:

> A number of banks exploiting loopholes in Nigerian accounting and auditing standards, weak capacity of the regulatory bodies and weak enforcement, employed creative accounting to boost their balance sheets. These weaknesses in financial reporting, auditing and accounting contributed to Nigeria's banking sector crisis. Given the magnitude of the costs of the crisis (between N1.5 - N2 trillion), government is focused on improving it (ROSC, 2011, p. 1).

With this coercive isomorphic pressure – the push by the World Bank – coupled with the recent failure of accounting infrastructures in Nigeria and the desire by the Nigerian government to attract foreign investment (mimetic isomorphic pressure), international best practices became institutionalised at the macro level (Dillard et al., 2004). Particularly to make Nigeria more attractive to foreign investors, following the 2008 capital market crisis, the Nigerian government had to succumb to the persuasion of the World Bank and IMF. This is perhaps the reason why the Nigerian government requested for another ROSC in 2010 following the one in 2004 to showcase their

commitment to the adoption of these international best practices. According to the ROSC (2011):

> The Government of Nigeria requested the World Bank in 2010 to conduct a second ROSC review. This ROSC review was conducted to assess the status of implementation of the 2004 ROSC Country Action Plan and identify ways to strengthen the institutional framework underpinning accounting and auditing practices and improve financial reporting in Nigeria (ROSC, 2011, p. 1).

The desire by the Nigerian government to attract FDI is a form of mimetic isomorphic pressure, as it follows a similar pattern of IFRS adoption by developing countries that adopted IFRS earlier on (see Irvine, 2008; Albu and Albu, 2012; Albu et al., 2014).

The World Bank/IMF recommended many reforms in the accounting infrastructures of the country, including accounting and auditing standards, regulatory authority, accounting education, and professional accountancy training.

> With focus on updating the country's statutory framework reporting and strengthening capacity of accounting and auditing regulatory bodies, the Companies and Allied Matters Act should be amended. Priority should be given to implementing IFRS, International Standards on Auditing (ISA), and International Standard on Quality Control (ISQC) as mandatory requirements. The two professional accountancy bodies in Nigeria, ICAN and ANAN, should serve both private and public sectors of the economy and enter into twinning arrangements with the leading IFAC-member bodies (ROSC, 2011, p.1).

A major recommendation by the World Bank in its attempt to institutionalise IFRS in Nigeria was the establishment of the Financial Reporting Council of Nigeria, which should have the backing of the law and is capable of monitoring the use of IFRS by Nigerian companies.

> Government should take immediate steps for ensuring that the FRCN Bill, which is under consideration of the National Assembly of the Federal Republic of Nigeria, is passed into law. This law will lead to the establishment of a comprehensive regulatory framework of corporate financial reporting in Nigeria. The Financial Reporting Council will be responsible for issuing, monitoring, and enforcing accounting and auditing standards. Additional focus of the Financial Reporting Council will be on corporate governance, actuarial standards, and valuation standards (ROSC, 2011, p. 21).

To complement the efforts of the FRCN, the World Bank further recommended the strengthening of the capacity of other enforcement agencies that regulate companies in Nigeria such as the Securities and Exchange Commission, National Insurance

Commission (NAICOM), the Nigeria Stock Exchange and the Corporate Affairs Commission through the recruitment of IFRS-trained staff.

> Immediate steps should be taken to prepare a team of IFRS experts at the Securities and Exchange Commission. These experts will be able to effectively carry out activities at the Commission, in collaboration with NASB/FRCN, with regard to ensuring IFRS compliance by the quoted companies. The quoted companies in Nigeria will be required to follow IFRS when it goes into effect on January 1, 2012. Similar IFRS technical capacity building is necessary in NAICOM, Nigeria Stock Exchange, Federal Inland Revenue Service, and Corporate Affairs Commission (ROSC, 2011, p. 26).

In addition, the World Bank recommended the alignment of ICAN and ANAN's training with the requirements of IFAC and it even provided financial support for the improvement of ICAN syllabus to create a platform for the training of professional accountants that have proper knowledge of IFRS.

> ICAN needs to further strengthen its institutional capacity with the assistance of a twinning partner (a strong IFAC-member body) and make progress to further meet the SMO [IFAC Statement of Membership Obligations] requirements. This phase of capacity building should be based on experience in Nigeria and elsewhere, and in particular focused on the following: (a) Completing the improvement of the accountancy education system in accordance with the International Education Standards issued in August 2009 as well as subsequent versions; (b) Adopting ISQC 1, which became effective mid December 2009, and establishing ongoing mechanisms for adopting new and revised versions of ISQC; and (c) Observing results of the self-assessment by ICAN under the IFAC compliance program and its action plan, which was approved in May 2009 (ROSC , 2011, p. 25).

> ANAN would need to put in place institutional arrangements for fulfilling IFAC membership requirements, focusing on various areas including strengthening accountancy education requirements, establishing mechanisms for adopting the requirements of the IESBA [International Ethics Standards Board for Accountants] Code of Ethics on an ongoing manner, assisting with the implementation of accounting and ethics standards, and strengthening the investigation and disciplinary mechanisms. A twinning arrangement needs to be developed with a strong IFAC member body with a mission and vision similar to that of ANAN. At the beginning of implementing the twinning program, the ANAN Council should work with the twinning partner to develop a strategic plan, within the framework of its enabling act. The strategic plan will guide and drive ANAN activities and priorities for a specified period. The strategic plan will also help to ensure that key ANAN leaders are following the same course. This will serve as the guidepost for the whole organization, including Council, Committees, and staff, whose activities and priorities should support overall ANAN strategic direction (ROSC, 2011, p. 25).

Finally, to create a holistic reinforcement of accounting infrastructures, the World Bank recommended the incorporation of IFRS into Nigerian universities' accounting curricula including the practical applications of IFRS.

> University-level accounting curricula should be reviewed to ensure a consistent approach is followed in Nigeria's universities. Particular focus should be given to include the practical application of IFRS and ISA, ethics, communication skills, and professional judgment to best prepare accountants (rather than bookkeepers) for careers in the corporate sector (ROSC, 2011, p. 27).

The Nigerian government, following the coercive isomorphic pressure from the World Bank as discussed above and the mimetic isomorphic pressure of attracting FDIs, established the FRCN in 2011. The FRCN exerts a coercive isomorphic pressure on listed firms while ICAN exerts a normative isomorphic pressure on listed firms. The government of Nigeria obtained an International Development Fund of $485,000 from the World Bank for strengthening the institutional capacity of ICAN. According to the World Bank procurement notice[28]

> The Government of Nigeria obtained an International Development Fund (IDF) grant from the World Bank (WB) in October 2010 to assist the Institute of Chartered Accountants of Nigeria (ICAN) to strengthen its capacity to support national and regional accountancy development.

This form of monetary persuasion is also a coercive isomorphic pressure (DiMaggio and Powell, 1983). Accordingly, ICAN syllabus has been completely overhauled and tailored towards IFRS and Nigerian universities have been teaching IFRS to students. ICAN would not resist such push for the overhaul of the accounting professional education because it will make international accounting bodies more receptive to its members. This is a form of mimetic isomorphic pressure on the part of ICAN. As a result of this move, ICAN has been able to sign a pathway agreement and MoU with professional bodies like the Institute of Chartered Accountants of England and Wales (ICAEW) and the Chartered Institute of Management Accountants. These agreements give ICAN members recognition beyond the borders of Nigeria. In a similar vein, ANAN equally exhibited mimetic isomorphism in a similar way to ICAN. The ROSC (2011) recommended the help of a twinning partner (a strong IFAC member) that would assist ANAN in the process of obtaining IFAC membership.

> In this regard, ANAN would need to put in place institutional arrangements for fulfilling IFAC membership requirements, focusing on various areas

[28] Nigeria: P121511 - Capacity Strengthening of ICAN to Support National and Regional Accountancy Development, IDF Grant No. TF097436. Available at http://projects.worldbank.org/procurement/noticeoverview?id=OP00017093&lang=en&print=Y

> including strengthening accountancy education requirements, establishing mechanisms for adopting the requirements of the IESBA Code of Ethics on an ongoing manner, assisting with the implementation of accounting and ethics standards, and strengthening the investigation and disciplinary mechanisms. A twinning arrangement needs to be developed with a strong IFAC member body with a mission and vision similar to that of ANAN (ROSC, 2011, p. 25).

Due to this procedure, ANAN was admitted into IFAC membership in 2014 and now has a mutual recognition with the CPA Ireland. Although the World Bank recommended improvements to both ICAN and ANAN, it maintained the status quo (ICAN's hegemony) with regard to auditing listed companies in Nigeria as enshrined in the CAMA (2004) (as amended).

In summary, it can be noted that the institutionalisation of IFRS at the macro level is concerned about the reform of accounting infrastructures. The institutionalising agents at the macro level are the World Bank and IMF. They exert coercive and mimetic isomorphic pressure on the Nigerian government to create the FRCN and strengthen ICAN's capacity, respectively. The Nigerian government yields to this pressure by undertaking the requested reforms. Through the two reforms, the institutionalisation of IFRS is transferred to the organisational field.

In summary, the World Bank and the IMF are the agents through which IFRS became institutionalised at the macro level. The creation of the FRCN and the strengthening of ICAN's capacity are the media through which the institutionalisation of IFRS is transferred to the organisational field (meso level). The meso level is considered in the next section.

Research Question 2: Who are the agents and what type of isomorphic pressure do they exert at the meso level to institutionalise IFRS?

2.7.4.2 Institutionalisation at the organisational field (meso level)

The institutionalisation of IFRS at the meso level is concerned about ensuring that the audited financial statements are prepared using IFRS. The major institutionalising agents at the organisational field are the FRCN, ICAN (through their members), external auditors and the accounting graduates of Nigerian universities. These agents and the way they institutionalise IFRS at the organisational field are discussed below.

a) The role of the Financial Reporting Council (coercive isomorphism)

As discussed in the last section, the FRCN was established by the Nigerian government as a response to the coercive pressure by the World Bank and IMF to strengthen

accounting infrastructures as a prerequisite for getting grants. The FRCN institutionalises IFRS by reviewing the compliance of annual accounts of listed firms with IFRS. The listed firms are required to submit a copy to the FRCN and SEC. All the questionnaire respondents (see Table 2.5) indicate that they submit their annual accounts to the FRCN for review, while some hint further that not just the final accounts but the interim and quarterly reports are also submitted to the FRCN. Non-compliance is duly sanctioned as most of the questionnaire respondents stated. Sanctions include fine/penalties, withdrawal and restatement of account, and suspension of FRCN membership, which implies that the parties involved cannot prepare or attest to financial statements until they are reinstated. One of the interviewees expressed the regulation by the FRCN this way:

> "For all listed companies, they are expected to file their statements as they file their annual reports with the Corporate Affairs Commission (CAC) and Securities and Exchange Commission (SEC). It is a must to file with FRCN and the filing has deadlines as well. The accounts filed with them will be reviewed by the FRCN. There were some situations where the FRCN reviewed some of the financial statements and then they came up with errors. There is a penalty for any type of error discovered and these errors are called type I and type II error, so the penalty depends on the kind of error. There are even situations whereby in the process of reviewing some of the financial statements, they discovered an error, the director and the auditor that signed the account were fined to the extent that the auditor was asked not to sign any account in his life again, likewise all the directors. So those are the ways they regulate the preparation of the financial statement" (Audit Supervisor).

An example of these sanctions is reflected in the recent regulatory sanction made by the FRCN on Stanbic IBTC (a Nigerian member of Standard Bank Group in South Africa) that was involved in financial statements manipulations and non-compliance with FRCN rules. Firstly, a withdrawal and restatement of the questionable accounts were ordered:

> The Directors of Stanbic IBTC are hereby directed to withdraw the Financial Statements of Stanbic IBTC Holdings Plc for years ended 31st December 2013 and 2014 and restate them in accordance with the provisions of Section 64 (2) of the Financial Reporting Council of Nigeria Act No. 6, 2011 and Regulation 21 of the Financial Reporting Council of Nigeria – Guidelines/ Regulations for Inspection and Monitoring of Entities, 2014 (FRCN, 2015)

Secondly, the directors were suspended and were further barred from signing any accounts:

> The FRCN number of the following persons who attested to the misleading Statements of Financial Position of Stanbic IBTC Holdings Plc for years ended 31st December 2013 and 2014 are hereby suspended

> until the investigation as to the extent of their negligence in the concealment, accounting irregularities and poor disclosures in the said financial statements is completed in accordance with Section 62 of the Financial Reporting Council of Nigeria Act No. 6, 2011. Accordingly, they are not allowed to vouch the integrity of any financial statements issued in Nigeria (FRCN, 2015).
>
> The persons are:
>
> i. Atedo N. A. Peterside FRCN/2013/CIBN/00000001069;
> ii. Sola David-Borha FRCN/2013/CIBN/00000001070;
> iii. Arthur Oginga FRCN/2013/IODN/00000003181; and
> iv. Dr. Daru Owei FRCN/2014/NIM/00000006666.

Thirdly, the audit partner that signed the accounts was equally suspended:

> Accordingly, the FRCN number of Ayodele H. Othihiwa (FRCN/2012/ICAN/00000000425) the Engagement Partner of the audit of Stanbic IBTC Holdings Plc for years ended 31st December 2013 and 2014, is hereby suspended until the investigation as to the extent of the negligence of KPMG Professional services is ascertained (FRCN, 2015).

Often, when errors or inconsistencies are discovered by the FRCN, there is usually a follow-up call to the preparers of accounts to clarify issues. Until then, sanctions are not levied, as mentioned by one of the interviewees:

> "If I may use my example, while I was in [company A], I've been called twice to come and explain certain disclosures that I put in the financials by the FRCN. Right now, that I am even on leave, I have a query from FRCN on 2015 financials that we submitted, which I have to answer before the end of this month. They pick and review, I don't know if they cover all companies but at least I have seen the one with [company A]. I have the one with my company that I am currently in now. I want to believe that they do for all companies that submit their financials to them" (Financial Controller II).

In fact, in the Stanbic IBTC case related above, the FRCN had several meetings and correspondences with both the company's management and KPMG representatives before levying the sanctions (FRCN, 2015).

Apart from the review of the financial statements, the FRCN engages with financial statements' stakeholders on matters related to IFRS to facilitate their understanding and clarify issues and requirements, as explained by a financial controller:

> We do industry engagement, they are having one this coming Thursday and Friday, where all the industries' chief accountants and Chief Financial Officers will sit together with FRCN members and engage their affairs. So, from this too that I know and very sure of, they [FRCN] have been encouraging [in terms of their regulation] (Financial Controller II).

The above analysis shows that the FRCN plays an important role in ensuring that companies' financial statements comply with IFRS. Thus, the FRCN exerts a coercive isomorphic pressure on listed firms through their quarterly and annual review of financial statements.

b) The role of the Institute of Chartered Accountants of Nigeria (normative isomorphism)

ICAN normatively institutionalises IFRS within the organisational field (meso level) by training existing and potential chartered accountants in Nigeria based on IFRS. Through the twinning arrangement between ICAEW and ICAN, facilitated by the World Bank, ICAN updated its syllabus strictly in accordance with IFRS (Keeling and Lamdin, 2013). The updated syllabus became examinable from 2014 onwards. However, such syllabus update was only relevant and applicable to the potential chartered accountants from 2014. In order to bridge this knowledge gap among existing chartered accountants and enhance their ability to prepare IFRS-based financial statements immediately after the IFRS adoption in 2012, ICAN devised some strategies such as incorporating IFRS training into members' Mandatory Continuing Professional Education (MCPE). Some of the interviewees noted:

> "I am aware that for the first three years, IFRS courses were mandatory apart from MCPE training for all already qualified professional accountants. While doing the training, they changed the courses, changed the subjects and fully adopted IFRS, jettisoning the local standards and made IFRS a core subject as well as some other ACCA subjects a part of ICAN subjects. So, that was the first thing they did. Also, they equipped audit firms under them in terms of training the partners. Those who were qualified were the ones reviewing the audit work, certifying the work of their staff. [ICAN] engaged all of them and now asked them to come for a special training. This was targeted at firms, not professionals" (Financial Controller I).

> "What happened then was that there was an IFRS training even before the syllabus was changed. When the IFRS transition started, there was a course called IFRS diploma which the board [of ACCA] instituted for those that were already chartered. You can go and do the diploma in IFRS that will basically teach you what IFRS is all about. You don't expect someone that has been chartered for like 10 years ago to go and restart ICAN again, so what they do is just to do a diploma in IFRS and you are good to go. That was what most companies did then, they sent their best hands to do the diploma in IFRS, so that is why if you see some 'old school' ACAs, you will see ACA and Dip. IFRS at least for those that are still in practice. I was speaking to a financial controller, and he was like if he wants to recruit anybody now, it is either someone that qualifies after 2014 or somebody that was qualified before then and has diploma in IFRS, because he understands that there is a knowledge

> gap between the old ACA and the new one. So, the old ACA tries to fill the gap with that diploma in IFRS" (Senior Associate I).

Subsequently and to date, ICAN updates its members through the MCPE on recent developments in IFRS and other contemporary accounting issues as explained by the following interviewees:

> "They [ICAN] organise MCPE, for those that are chartered already. They have to have at least 30-hour mandatory education every year just to keep you abreast, because accounting is a evolving profession, changing every time, so you have to be up to date" (Senior Associate).

> "They [ICAN] usually organise training for existing members on IFRS so they would invite trainers when there is any development in IFRS. Apart from that, there is the regular MCPE, members are expected to attend it at least twice in a year. So, in the process, there are lots of courses listed for that particular program. Part of the program is the training of members on IFRS. So that is a way ICAN ensures that members are kept abreast of any development" (Audit Supervisor).

The above analysis shows that ICAN exerts a normative isomorphic pressure on the Nigerian companies to comply with IFRS for external reporting, through educating new members and updating of existing members to prepare companies' annual reports in line with IFRS. Beside the FRCN and ICAN, other agents are also involved in ensuring the institutionalisation of IFRS at the organisational field.

c) The Role of the NUC through accounting education (normative isomorphism)

The Nigerian Universities Commissions (NUC) has the responsibility for ensuring quality control of courses in Nigerian universities through their accreditation. Likewise, the ICAN accredits accounting courses in tertiary institutions for determining exemptions for students. Both institutions, by requiring that accounting syllabi comply with IFRS, ensure that accounting students who pass through the education systems to various organisations have only the knowledge of IFRS.

The survey results (see Table 2.5) are however not unanimous regarding this. Only 50% of the questionnaire respondents agree that accounting graduates are well equipped with IFRS training. The experiences across companies seem to be different regarding this issue as well. As one of the big 4 auditors put it:

> "Nigerian [accounting] graduates are not well grounded in IFRS as schools have not necessarily captured IFRS in their syllabus" (Senior Associate II).

When questioned about the capabilities of accounting graduates, some of the respondents expressed that the reason for the knowledge gap is because only the basics of IFRS have been introduced in the Nigerian universities' syllabi and much is still left out. Some of the interviewees commented as follows:

> "Honestly, I have not seen a significant change in the syllabus we use, the syllabus still remains the same, so it is like there is no much change. Of course, they introduced it but just at the preliminary level that you may not even know what you are doing at that level. But based on my experience so far with some of them, I do not really think they have that knowledge. But if they start ICAN, I think at that level, they get more knowledge of IFRS" (Audit Supervisor).

> "Yes, they do, but they are not in-depth. Even though you have been hearing about it [IFRS] and I ask you a question and you say yes, you have, but can you interpret this with what you know? They will not give you that understanding" (Financial Controller II).

In most cases companies train their staff in-house or send them to outside training programmes in IFRS as indicated by the majority of the questionnaire respondents (see Table 2.5). Some of the interviewees state:

> "Some of the newly recruited work under qualified persons and I tell them to give them on-the-job training and pass this knowledge to them" (Financial Controller II).

> "Auditors in the audit firms have on-the-job training" (Senior Associate II)

> "Let me speak for my firm now, we recruit anybody, whether you are accounting graduates or not, so what we do is that they undergo a training for like one and half month…… so aside all the theoretical knowledge they get in their first one and a half month, [they also get] on-the-job training" (Senior Associate I).

The analysis above shows that accounting graduates that are trained in IFRS can exert normative isomorphic pressure on Nigerian companies that hire them, since these graduates will prepare accounts based on IFRS. Furthermore, these graduates are trained on the job. Thus, both the university training and on-the-job training ensures that external reports of companies prepared by these graduates are IFRS-based.

(d) The role of the external auditors (coercive isomorphism)

The FRCN ensures that the auditors enforce the adoption of IFRS for companies' external reports by making them a responsibility of those signing the accounts i.e., the board of directors and the external auditors, who are now required to sign reports in their names.

This is in contrast to the requirement in the past where only audit partners sign in the name of their audit firm and hence, any errors therein were a responsibility of the audit firm and not the audit partner. An audit supervisor presents this development as follows:

> "Those that are going to be responsible for the signing of the financial statements of the company are expected to be members of the Council and someone with professional knowledge……..More so [for auditors], if you are not in any accounting professional body, you cannot sign a financial statement. As an auditor, it means that you are responsible for your opinion in that financial statement, so that means that as a professional, whatever you do, you are going to be accountable for that financial statement. That will give the financial statements more quality and make it more reliable for financial statements users" (Audit Supervisor).

Consequently, all the questionnaire respondents (see Table 2.5) agree that when their external reports do not comply with IFRS, the auditors will qualify their reports. Furthermore, an audit supervisor explains how auditors approach matters of noncompliance with IFRS as follows:

> "If the auditor identifies any issue with the account, he or she relates it with the board. It is now left with the auditor to clear it before the account is filed. That is why if the auditor is not comfortable with anything or explanations of issues identified in the course of the audit, they may decide to qualify their opinion if it is a significant issue. But in a situation whereby the auditor did not qualify the financial statement, what it means is that the auditor is okay with the financial statement and whatever happens to the financial statement, the auditor will be responsible for it" (Audit Supervisor).

In most cases, auditors will avoid qualifying their reports, but would ensure that their client's financial statements are IFRS-compliant as indicated by the following:

> "Where management has made a significant judgement, where we don't agree, we reach a compromise. The arguments always come in especially for disclosure purposes, the financial statement is not always an issue, because most of them know what is expected. It is only the disclosure that is always the headache. So, some clients will not want to disclose some information, and we auditors will be like no, IFRS says that you must actually do this and all that, that is where the back and forth always come in" (Senior Associate I).

The analysis above shows that external auditors exert coercive isomorphic pressure on Nigerian firms to make them use IFRS in preparing their audited financial statements. If they do not comply with IFRS, the external auditors will qualify their reports as affirmed by the interviewees.

The next section looks at the institutionalisation of IFRS at the micro level. It is at the micro level that the final outcome (symbolic or substantive adoption) of the whole

institutionalisation process is determined. The above analysis shows that the FRCN, ICAN, NUC, and external auditors ensure that IFRS is used for external reporting. However, it is necessary to find out whether the coercive and normative isomorphic pressures exerted by these agents at the meso level ensure that IFRS is used for internal reporting (substantive adoption) by the Nigerian firms.

Table 2.5 Summary of Responses to the Questionnaire

Questionnaire Items	YES	NO
Internal and external reports comply with IFRS		
Internal reports	84%	16%
External reports	100%	—
External auditors qualify reports when they do not comply with IFRS		
Internal reports	71%	29%
External reports	100%	—
The FRCN requires that both the internal and external reports comply with IFRS		
Internal reports	67%	33%
External reports	100%	—
Adequate knowledge of IFRS		
ICAN members have adequate knowledge of IFRS	100%	—
Accounting graduates have adequate knowledge of IFRS	83%	17%
Cost/benefits of IFRS adoption		
Cost of IFRS adoption outweighs its benefits	83.33%	16.67%

Research Question 3: Is IFRS substantively adopted (used for internal reporting) by Nigerian firms?

2.7.4.3 Institutionalisation at the organisational level (micro level)

The institutionalisation at the micro level is concerned about whether IFRS is used for internal reporting (PwC, 2004), which is tantamount to it forming part of the day to day activities of the business (substantive adoption). The majority of the respondents to the questionnaire (see Table 2.5) agree that their internal reports comply with IFRS. In a similar vein, most of the interviewees agree with this submission. However, the extent to which companies use IFRS for internal reports vary. One of the big 4 auditors noted that the accounting system captures IFRS but may not necessarily be reflected in the internal reports:

> "For example, financial instrument (e.g., available for sale) and foreign exchange transactions that are subject to daily fluctuations are captured by the accounting system but not necessarily reflected in internal reports" (Senior Associate II).

In a similar vein, the difference between internal and external reports may be in the presentation because internal reports are not required to follow any rule. Management chooses any format they desire for presentation as mentioned by the following:

> "Internal reports comply with IFRS but not the same format with external reporting. The fundamentals are the same, but the formats are different. Both internal and external reports are extracted from the same list of balances" (Financial Controller I).

> "At the end of the month, we will prepare the IFRS financials and we compare the figures with the internal one. We highlight the differences and we explain why the differences, but the bottom line will not change. For external report, I may classify a cost as part of my cost of sales whereas in my internal reporting, these costs that are classified as my cost of sale may be classified as operating cost so that at the end of the day, your profit after tax will always be the same because that would have considered all the information before profit before tax. It depends on where you put your item, you may put 'A' up in internal while in external you put 'A' down, but at the end of the day, it will be the same thing, so it will not affect it" (Financial Controller II).

It can be inferred from the above that Nigerian firms use IFRS for internal reporting. Thus, they have substantively adopted IFRS. Beside the agents exerting isomorphic pressures at the organisational field, there are other agents or factors that exert pressure on Nigerian firms at the organisational level so that internal reports are prepared based on IFRS. This question is answered next.

Research Question 4: Who are the agents and what type of isomorphic pressure do they exert at the micro level to institutionalise IFRS?

(a) Enforcement by the FRCN, SEC, Boards of Directors and internal auditors

The SEC does not expressly require that internal reports of companies comply with IFRS, but through quarterly and interim reports submitted to it by companies, it enforces compliance with IFRS. As noted by some of the respondents to the questionnaire, quarterly and interim reports are scrutinised by the SEC for compliance with IFRS. Some of the auditors explain this process as follows:

> "IFRS is expected to be used for both internal and external reporting, because for listed companies, they are expected to file their quarterly reports with the Securities and Exchange Commission (SEC) so for this reason, they need to present management reports in compliance with

> IFRS. That means for both internal and external reporting, their books are supposed to be in line with IFRS" (Audit Supervisor).
>
> "……it also makes their report timely as they have deadline for submission. Due to the fact that they are expected to file their report in line with IFRS on quarterly basis, they have to do that every quarter, this therefore prompts them to report internally using IFRS" (Audit Supervisor).

As the directors and the CFOs are responsible and liable for the quarterly, interim, and final reports of the firms, they ensure that these reports are error-free in compliance with IFRS. Thus, they set the accounting processes and controls to capture the day to day IFRS transactions (Senior Associate II). An audit supervisor expresses this assertion as follows:

> "Since the financial statement is the sole responsibility of the management and the entire board, therefore, if there is anything wrong with the financial statement, the board will be held responsible for the preparation of that account" (Audit Supervisor).

Internal auditors perform the function of ensuring that management controls are working. Included in these controls is that data should be captured in line with prevailing accounting standards. Thus, while performing their duties, they ensure that IFRS is used, thereby institutionalising it:

> "Anytime I am auditing a particular aspect of financial accounting, checking for controls over financial reports, I check for compliance [with relevant standards]. For example, if I am auditing inventory, I need to check [the] IFRS that relates to inventory. If I am auditing fixed assets, I need to check IFRS on PPE [property, plant, and equipment]" (Internal Auditor I)

The above analysis shows that the SEC exerts a coercive isomorphic pressure on the Board of directors of Nigerian listed firms through the requirements of submission of quarterly reports. This effort is enhanced by the internal auditors who check the compliance of internal reports with IFRS.

(b) Costs/benefits of using IFRS for internal reporting

Based on the requirement to submit quarterly reports that are IFRS-compliant to the SEC, it becomes cost inefficient to prepare internal reports using the SAS and thereafter converting them on a quarterly basis for submission to the SEC. Hence, the cost of this potential conversion pushes companies to report internally using IFRS as stated by some interviewees:

> "It will be illogical for them to prepare internal reports on a monthly basis not using IFRS and now have to convert that on a quarterly basis [for submission to the SEC]. Logically for them in terms of cost, manpower and consultancy, it is reasonable for them to prepare internal reports based on IFRS" (Audit Senior).

> "It is because they need to structure their financial statement to make it easier for them, as there will not be the need for extra cost of converting from local GAAP to IFRS. So, if their reporting has been prepared using IFRS format, there will not be the need to incur additional cost of converting" (Audit Supervisor).

> "Duplication of efforts for conversion [makes companies use IFRS for internal reporting]" (Director, advisory services).

It can be deduced from the above analysis that the cost of converting internal reports that are prepared based on SAS to IFRS is another factor that makes Nigerian companies substantively adopt IFRS (i.e., use IFRS for internal reporting).

(c) Parent companies' influence

Some of the Nigerian companies are a member of a multinational group of companies, whose account have to be harmonised into one report at the end of the year. To ease this process, all the subsidiaries will often prepare management reports, which are sent to the headquarters for consolidation. These reports have to be based on a common language which is, in this case, IFRS. Thus, subsidiaries of such groups in Nigeria have been preparing two accounts, one based on the IAS and the other on Nigerian GAAP, before IFRS was made compulsory in Nigeria. Using IFRS for internal reporting and external reporting is therefore a cost and effort reduction for the Nigerian subsidiaries, as explained by the following interviewees:

> "Just for simplicity sake, [my company] is a multinational company. In order to avoid the translation at the end of the day, that is why we use IFRS for internal reporting. By the time you want to consolidate with other countries, you still have to translate" (Plant Financial Controller).

> "We also have clients that have their parent companies in Europe and those one will actually require them to prepare monthly management accounts which most likely will be strictly IFRS" (Audit Senior).

> "[My company] is a member of [Group Plc], which is a large multinational company, and we are required to submit our management report to the group. Because of the fact that we need to compare our figures with another country, for us to be on the same page, everybody must align and prepare their internal reports using IFRS" (Internal Auditor II).

Because some Nigerian subsidiaries of multinational companies need to submit management (internal) reports to their parent company for consolidation, they need to prepare it with the same accounting standards as the parent company. This exerts a coercive isomorphic pressure on them to use IFRS for internal reporting.

2.9 Discussion of Findings and Conclusion

The institutionalisation of IFRS takes place across three levels of social order (Dillard et al., 2004). At the macro level, the overarching norm or rule (i.e., IFRS) is established and transferred to the meso level through institutionalising agents. From the meso level, the rule is further transferred to the micro level by institutionalising agents at the preceding level. It is at the organisational level that the final outcome of the institutionalisation process is determined. This study shows that the World Bank exerted a coercive isomorphic pressure on the Nigerian government to establish the FRCN and on ICAN to strengthen its capacity. Thus, the World Bank is the institutionalising agent at macro level.

Through the FRCN and the ICAN, the notion of IFRS adoption is transferred to the Nigerian companies. Furthermore, the accounting graduates and external auditors aid this institutionalisation of IFRS at the meso level by exerting normative and coercive isomorphic pressures on Nigerian firms, respectively. The FRCN directly monitors the compliance of companies' audited reports with IFRS through annual review of accounts. Through equipping of students and members with IFRS knowledge, ICAN exerts a normative isomorphic pressure on companies so that their audited financial statements comply with IFRS. Since external auditors are required to sign audited accounts in their names by the FRCN, they are personally responsible for any errors (including noncompliance with IFRS) found in the reports. Due to this requirement, they also ensure that external reports are in compliance with IFRS. Finally, accounting graduates use the IFRS training they acquire from the university and on the job to prepare IFRS-compliant financial statements.

The institutionalisation of IFRS at the micro level is ensured by the board of directors who have the responsibility of preparing quarterly reports to the SEC, as mandated by the FRCN. The internal auditors, as mandated by the management, also checks the accounting system's compliance with IFRS. Other factors leading to the use of IFRS for internal reporting are the higher cost of translating quarterly report at the end of the year and the requirement by the parent companies of Nigerian subsidiaries that the accounts of the latter comply with IFRS.

Unlike the previous studies (Mir and Rahaman, 2005; Chand, 2005; Irvine, 2008; Albu and Albu, 2012; Albu et al., 2014; Hassan, Rankin and Lu, 2014; Nurunnabi, 2015; Carneiro et al., 2017) where IFRS is shown as being symbolically adopted, IFRS is substantively adopted by the Nigerian listed firms as evidenced by their use of it for internal reporting and its embeddedness in their accounting systems. This study emphasizes that institutionalisation of IFRS is a process rather than an outcome (Dillard et al., 2004). The Nigerian government, influenced by the World Bank, is committed to ensuring substantive adoption of IFRS and hence, created and strengthened existing institutions – FRCN, SEC, ICAN and NUC – to drive substantive adoption. These institutions equally created mechanisms such as quarterly and annual review of financial statements that make it difficult for companies to circumvent using IFRS for external reporting without using it for internal reporting. Further, compelled by ancillary factors like the cost of conversion and pressure from parent companies, the Nigerian listed companies ultimately use IFRS for internal reporting.

This study is the first study, as far as the researcher is aware, that investigates the process through which IFRS becomes embedded into organisational processes, using Dillard et al.'s (2004) model of neo-institutional theory and more importantly, in a developing country often characterised by inadequate infrastructure to enforce accounting reforms. Another important contribution of this study is that where macroeconomic factors such as the rule of law and investor protection are weak, a strong enforcement and restructuring of specific accounting infrastructure like the accounting profession, can drive a substantive adoption of IFRS.

The results of this study are important for the findings of the next empirical chapters. The results show that the FRCN has put in place necessary procedures to ensure that financial reports of Nigerian firms are less prone to accounting irregularities and IFRS is substantively adopted. The next chapter examines the implications of IFRS adoption and the creation of the FRCN on accounting quality in Nigeria.

This study, as in case study research, is limited by its inability to make generalisation regarding substantive adoption of IFRS across all Nigerian firms, especially due to the inability of the researcher to get all the responses to the mail questionnaire. However, the data triangulation adopted (i.e., document analysis, surveys, and interviews) provides good insights into the process and outcome of institutionalisation of IFRS in Nigeria.

CHAPTER 3

The Effects of Financial Reporting Regulation on Accounting Quality: The Case of Nigeria

3.1 Background to the Study

Financial reporting regulations, in recent times, have been spurred by market failures and a variety of corporate scandals (Leuz and Wysocki, 2016). The accounting manipulation by Enron and WorldCom, the Asian financial crisis of 1997 and the financial crisis of 2008 are notable examples. Countries have responded to these scandals and crises by creating different forms of regulations or stiffening existing regulations. For example, the SOX Act was introduced in the US following Enron and WorldCom accounting fraud. However, the costs and benefits of these regulations remain a subject of empirical investigation (Li, 2010; Leuz and Wysocki, 2016). Establishing the cost and benefits of IFRS adoption is important for policy making with respect to regulating or not regulating financial reporting (Leuz and Wysocki, 2016).

Financial reporting regulation is defined as the creation of a single authority, charged with the creation of reporting rules, the interpretation and monitoring of compliance with these rules, and the imposition of penalties for non-compliance (Leuz and Wysocki, 2016). Financial reporting regulation in recent times has taken the form of IFRS adoption and concurrent enforcement, as a part of the global push to adopt International Financial Reporting Standards (Ball, 2016). Several cross-country studies (e.g., Barth, Landsman and Lang, 2008; Zeghal, Chtourou and Fourati, 2012; Ahmed, Neel and Wang, 2013; Cai et al., 2014; Capkun, Collins and Jeanjean, 2016) have tried to examine the benefits of IFRS adoption, but the results are highly-mixed. Following these mixed results, recent studies (Christensen, Hail and Leuz, 2013; Kim, 2016) argue that simply adopting IFRS does not lead to benefits in terms of higher accounting quality. Adoption should be coupled with enforcement and other institutional reforms, as accounting quality is a function of different accounting infrastructures[29] such as the level of investor protection and corporate governance (Leuz, Dhanajay and Wysocki, 2003).

Accounting practices, notwithstanding the global harmonisation of accounting standards, still vary across countries (Bradshaw and Miller, 2008; Hellman, Gray, Morris and Haller, 2015). Consequently, cross-country studies on IFRS adoption have been criticised of generalising findings beyond homogeneous settings (Li, 2010). In fact,

[29] Accounting infrastructures imply all structures that aid in fair presentation of the economic realities of a company.

accounting practices still differ across countries and firms despite using uniform accounting standards (Ball et al., 2003; Leuz and Wysocki, 2016; Daske et al., 2013; Burgstahler, Hail and Leuz, 2006). Thus, the effect of accounting regulation is not homogenous across countries. Based on this, Leuz and Wysocki (2016) and DeGeorge et al. (2016) called for the study of accounting regulation in various country contexts to unveil new insights. Since mandatory IFRS adopters are compelled to adopt IFRS, the effectiveness of such regulation (i.e., IFRS adoption) is dependent on the political and economic institutions that incentivise managers and auditors to prepare high-quality financial statements (Li, 2010). Christensen et al. (2013) argue that the higher accounting quality often ascribed to IFRS adoption may actually suffer from the effects of cofounding variables, since IFRS adoption is complemented with some other reforms to aid a smooth implementation of IFRS. Thus, this poses the question of whether it is IFRS alone that leads to better accounting quality or other institutional reforms. The answer to this question is best explored where IFRS is not implemented concurrently with other reforms or where their possible mixed impact can be disentangled. However, most past studies suffer from this identification problem (Christensen et al., 2013; Leuz and Wysocki, 2016).

Aside relatively few studies examining the impact of IFRS cum enforcement on accounting quality, Nigeria provides an interesting context for studying this phenomenon. Firstly, IFRS adoption and enforcement in Nigeria was a response to market failures arising from various accounting manipulations and not merely a part of globalization as in other settings (Ball, 2016). Thus, unlike in other countries that consider the effect of IFRS without a clear-cut decline in accounting quality prior to IFRS adoption, Nigeria provides an avenue to really ascertain whether IFRS is effective in enhancing accounting quality or not. Secondly, enforcement of IFRS through the establishment of the Financial Reporting Council of Nigeria (FRCN) was made a year before the adoption of IFRS. Therefore, the effect of enforcement can be separated from IFRS adoption, which has been the major flaw of prior studies (Christensen, Lee, Walker & Zeng, 2015; Christensen, Hail, Luzi & Leuz, 2016. Leuz & Wysocki, 2016). Thirdly, Nigeria has fewer cofounding variables (e.g., good corporate governance system and adequate investor protection) that can bias results. Following the market failure, the creation of the FRCN and the adoption of IFRS were the major reforms targeted at curbing future market failures. Thus, the effect of IFRS adoption and enforcement can be readily determined without bias.

3.2 Statement of the Problem

The adoption of IFRS is continually increasing around the globe (Ball, 2016). Out of 48,000 listed firms on major stock exchanges, 25,000 have adopted IFRS, albeit to some varying degrees (IFRS Foundation, 2016). The arguments surrounding the consequences of IFRS adoption is yet unsettled. The IASB argues that IFRS adoption leads to higher accounting quality. Accounting quality does not have a definition, but it is usually measured with earnings management, accounting conservatism, and earnings persistence. One stream of empirical studies reveals that IFRS leads to higher accounting quality (Barth, Landsman and Lang, 2008; Iatridis and Rouvolis, 2010; Chen, Tang and Lin, 2010; Chua, Cheng and Gould, 2010). On the contrary, many studies equally show that IFRS reduces or does not improve accounting quality (Kabir, Laswad and Islam, 2010; Ernstberger, Stich and Vogler, 2012; Ahmed, Neel and Wang, 2013; Camean, Campa and Pettinicchio, 2014; Bryce, Ali and Mather, 2015; Liu and Sun, 2015; Andre, Filip and Paugam, 2015 and Christensen, Lee and Walker, 2015).

IFRS adoption has many attendant costs, such as the cost of IT restructuring, audit cost, internal control reorganisation, staff training (see PwC, 2004; Albu and Albu, 2012; Bova and Pereira, 2012; Christensen et al., 2015), and opportunity cost arising from substituting local standards that embody local needs and culture for international standard that does not take care of local needs and culture. However, the benefits of IFRS (in terms of higher accounting quality) on the other hand, is not yet confirmed.

Whilst the ability of IFRS to improve accounting quality is not yet known, Nigeria adopted IFRS in 2012 to improve accounting quality, which hitherto had been undermined by various accounting manipulations of Nigerian companies (ROSC, 2004; 2011). The accounting manipulation culminated into the Nigerian banking crisis in 2008/2009 which led to an unprecedented loss of invested fund to the tune of ₦1.5 trillion to ₦2 trillion (approximately $13.4billion). Besides IFRS adoption, Nigeria also created the FRCN in 2011 with the responsibility to develop and monitor compliance with accounting standards, sanction non-compliance, and develop codes of corporate governance. As these two major reforms were geared towards improving the quality of financial reporting in Nigeria, whether such intent has been met or not is an important research question.

Moreover, the effect of IFRS adoption cum enforcement is still an ongoing research endeavour. There has been an argument that IFRS adoption adds little (if any) improvement to accounting quality and it is the enforcement of accounting standards, whether IFRS or not, that matters (Christensen et al., 2013). Kim (2016) found that

enforcement alone does not lead to improved accounting quality except it is strengthened with IFRS adoption. Thus, the empirical results of the effect of IFRS and enforcement on accounting quality is still mixed and needs further exploration.

3.3 Research Objectives and Research Questions

The objective of this study is to examine the impact of accounting regulation, through IFRS adoption and the establishment of FRCN, on accounting quality in Nigeria. Specifically, the objective is to disentangle the impact of IFRS adoption from that of enforcement by the FRCN. Accounting quality is proxied by earnings management, timely loss recognition, and earnings persistence. To achieve this main objective, the following research questions are answered:

f) What is the effect of IFRS adoption on earnings management following market failure in Nigeria?

g) What is the effect of the establishment of the FRCN on earnings management following market failure in Nigeria?

h) What is the effect of IFRS adoption on timely loss recognition following market failure in Nigeria?

i) What is the effect of the establishment of the FRCN on timely loss recognition following market failure in Nigeria?

j) What is the effect of IFRS adoption on earnings persistence following market failure in Nigeria?

3.4 Significance of the Study

A recent study by Capkun et al. (2016) reveals that the 2005 amendments made to IFRS provide more flexibility in accounting choices, which may reduce accounting quality through increased earnings management. However, IFRS adoption is still claimed by the World Bank to improve accounting quality, such that it is recommended as a measure to deter accounting manipulations, as in the case of Nigeria (ROSC, 2004; 2011). It is important to know whether IFRS adoption really improves accounting quality in order to make necessary policies that deter accounting manipulations and consequently prevent market failures. It is equally important to understand which of the accounting regulatory measures (i.e., IFRS or enforcement or both) really or significantly improves accounting quality to properly make the right policies with respect to accounting reforms.

The extent of divergence of a country’s national GAAP from IFRS has been argued as affecting the impact of IFRS adoption on accounting quality (Zeghal, Chtourou

and Fourati, 2012; Cai et al., 2014). As Nigeria's Statements of Accounting Standards represented 50% of IFRS (ROSC, 2011), whether this argument holds or does not hold can be verified by this study in the Nigerian context. Thus, countries whose national GAAP have little divergence from IFRS can gain insights from the result of this study when making decisions on whether or not to adopt IFRS.

3.5 Literature Review

3.5.1 Contextual Framework

A sound financial reporting architecture is necessary for ensuring macroeconomic stability. As accounting information are used by the investing public for investing decisions, an unfaithful presentation of a company's financial details can lead to a loss of investment of the investors, who may have relied on such reports. Furthermore, the increasing demand for cross-border financing and supply of cross-border investments have raised the need to reassure, especially foreign investors, that the accounting architecture of a country is adequate to guard against loss of investments. IFRS has often been propagated as a trustworthy high-quality financial reporting standard that should ensure investors' confidence.

The process of IFRS adoption in Nigeria started with the preparation of the first Report on Observance of Standards and Codes: Accounting and Auditing (ROSC) conducted jointly by the World Bank and IMF in Nigeria in 2004.The ROSC was one of the twelve mechanisms developed jointly by the World bank and IMF Boards of Executive following the 1997 Asian financial crisis. The ROSC review has four major objectives, namely determining the strengths and weaknesses of the institutional infrastructure that support financial reporting and auditing practices of a country; comparing a country's local accounting and auditing standards with international standards (IFRS and ISA); assessing the level of compliance with existing national standards; and assessing the effectiveness of enforcement structures and institutions in ensuring compliance with local standards. The ROSC (2004) report revealed that although the Nigerian Statement of Accounting Standards (SAS), issued by the Nigerian Accounting Standards Board (NASB) was based on IAS/IFRS, there was still a wide departure from IAS/IFRS in terms of disclosure requirements, scope, and detail. The ROSC (2004) also considered the SASs as relatively less stringent compared to IFRS in terms of disclosure requirements. In the subsequent ROSC (2011)[30], it was found that the

[30] A second ROSC was requested by the Nigerian government to assess the extent of implementation of the recommendations of the ROSC (2004).

SAS as at 2011, covered about 50% of the existing IAS/IFRS. Another key finding of the ROSC (2011) was a very weak enforcement mechanisms of financial reporting by the regulatory institutions in Nigeria.

The regulatory institutions that underpin the financial reporting architecture in Nigeria are numerous. Their duties and failures as uncovered by ROSC (2004; 2011) are discussed next.

3.5.1.1 Financial reporting regulatory institutions in Nigeria

The Nigerian Accounting Standards Board was created in 1982 as an initiative of the Institute of Chartered Accountants of Nigeria (NASB, 2009). The NASB was responsible for setting accounting standards in Nigeria (Statements of Accounting Standards – SAS) as well as ensuring compliance with the accounting standards set. The Companies and Allied Matters Act (CAMA) (1990) requires companies to comply with the accounting standards issued by the NASB. The minimum disclosure requirements and the mode of preparation and presentation of financial statements are also specified by the CAMA (1990). Despite the NASB being statutorily empowered to monitor compliance with accounting standards in 2003 through the NASB Act (2003), the ROSC (2004) found the NASB to be incapable of fulfilling its duties due to lack of both human and material resources. Thus, the NASB's monitoring of compliance with the SASs was seriously undermined.

The Securities and Exchange Commission (SEC) was established by Decree No 71 of 1979 with the responsibility of protecting investors' interest against unwholesome practices of capital market participants. It is also charged with regulating the capital market through the Investment and Securities Act (1999) and the Securities and Exchange Commission Rules of 1999. The Nigerian Stock Exchange (NSE) was established by the Nigerian Stock Exchange Act (1961) as a registered company limited by guarantee[31]. The NSE is regulated by the SEC and licensed under the Investment and Securities Act (1999). The NSE supports the SEC in the supervision of Nigerian listed firms. The CAMA (1990) requires that listed companies submit a copy of their audited financial statements to the NSE and the SEC within 3 months following their accounting year-end (ROSC, 2004). However, the ROSC (2004) noted that the "SEC enforcement is weak and administrative sanctions and civil penalties are not adequate to deter noncompliance" (p. 9). The ROSC (2011) also found that financial statements submitted to the NSE were not appraised for compliance with accounting standards and disclosure requirements.

[31] http://www.nse.com.ng/about-us/about-the-nse/corporate-overview

The Corporate Affairs Commission (CAC) replaced the Companies Registry which was established by the repealed Companies Act of 1968 (Okike, 2007). The CAC inter alia is responsible for companies' registration and the administration of CAMA (1990). The registrar of the CAC is empowered by the CAMA (1990) to ensure that the presentation and disclosure requirements of financial statements as required by CAMA (1990) are complied with. Although listed and non-listed public and private firms are expected to file audited financial statements with the CAC within 42 days following the company's completion of Annual General Meeting (AGM) (ROSC, 2011), the ROSC (2004) found that many companies were not filing their audited financial statement with CAC, as required by CAMA (1990) and financial statements of non-listed firms were not available. This weakness in enforcement was accentuated by lack of proper record-keeping and corruption (ROSC, 2004).

Based on the above weaknesses in the regulatory institutions and the Nigerian SASs, the ROSC (2004) initially recommended a convergence of SAS with IFRS and the creation of the Financial Reporting Council of Nigeria (FRCN) to replace the NASB. The ROSC (2011) later recommended the full adoption of IFRS and timely establishment of the FRCN.

The Financial Reporting Council of Nigeria (FRCN) was established by the Financial Reporting Council of Nigeria Act No. 6 of 2011. The FRCN is a parastatal of the Federal Government of Nigeria under the Federal Ministry of Industry, Trade, and Investment. It is charged with developing accounting standards and monitoring compliance with the standards as well as developing ancillary institutions that reinforce its standards setting and compliance monitoring duties, such as developing corporate governance code and setting standards for audit, actuarial practices, and valuation. The Council operates through seven[32] directorates in carrying out its duties. The FRCN declared a mandatory adoption of IFRS by all listed companies on the Nigerian Stock Exchange from 1st January 2012.

Prior to the creation of the FRCN and the adoption of IFRS in Nigeria, accounting practices in the country were ridden with errors and frauds. Particularly, the ROSC (2011) found that many companies did not properly disclose revenues. There was the tendency to overstate or understate revenue in order to manage accounting earnings. Similarly, full liabilities for employee benefits were not recognised on accrual basis. Leases were often

[32] These directorates are: Directorate of Accounting Standards Private Sector; Directorate of Accounting Public Sector; Directorate of Actuarial Standards; Directorate of Auditing Practices Standards; Directorate of Corporate Governance; Directorate of Inspection and Monitoring and; Directorate of Valuation Standards.

misclassified to improve the liability side of the statement of financial position, thus, portraying the borrowing capacity of the companies as favourable. Non-disclosure of information related to impairment test, impairment review and impairment adjustments was a commonplace. Information regarding provision, contingent assets and liabilities were not disclosed, which may imply arbitrary use of these items to hide the true performance of the companies. In the banking sector, the banks exploited the lax regulatory structure to inflate their balance sheet values. Banks gave margin loans to their customers to purchase their shares on credit. As stock prices fell, many customers defaulted, which led to a surge in the non-performing loans from 5% in 2008 to 60% in 2009. Consequently, the whole Nigerian capital market was in shambles as a result of lax regulation and improper financial reporting (SEC, 2009).

With the adoption of IFRS and the establishment of FRCN to enforce accounting standards (SAS and later, IFRS), the accounting quality of the Nigerian listed firms is expected to improve. However, whether these regulatory mechanisms lead to improvements in accounting quality in Nigeria is an empirical question.

3.5.1.2 Enforcement of accounting standards, the NASB and the FRCN

The FRCN is essentially a reorganization of the NASB with redefined authorities and monitoring procedures. The governing board of the FRCN comprises of several institutions[33] in order to capture the interest of all relevant stakeholders. Prior to its establishment, the ROSC (2011) observes that the NASB already stepped up its regulatory efforts:

> The NASB writes to companies requesting their financial statements for review. The review is conducted using checklists developed for each SAS. Issues of noncompliance are conveyed to the company with a request that the auditor accompanies the company to the inspection meeting. The NASB has improved upon its monitoring and enforcement function thus becoming prominent in the discharge of this responsibility. Arising from its monitoring, some companies and their auditors have been sanctioned for manipulating accounting principles. (p. 15).

[33] Institute of Chartered Accountants of Nigeria; Association of National Accountants of Nigeria; Office of the Accountant General of the Federation; Office of the Auditor General for the Federation; Central Bank of Nigeria; Chartered Institute of Stockbrokers; Chartered Institute of Taxation of Nigeria; Corporate Affairs Commission; Federal Inland Revenue Service; Federal Ministry of Trades and Investment; Federal Ministry of Finance; Nigerian Accounting Association; Nigerian Association of Chambers of Commerce, Industries, Mines and Agriculture; Nigerian Deposit Insurance Corporation; Nigerian Institute of Estate Surveyors and Valuers; Securities and Exchange Commission; National Insurance Commission; Nigerian Stock Exchange; and National Pension Commission.

It can be inferred from this that there was improved enforcement of accounting standards (SASs) in Nigeria prior to the adoption of IFRS in 2012. This improvement was subsequently consolidated with the establishment of the FRCN. The case of FRCN's sanction of Alliance and General Insurance and Alliance Ltd. and General Life Assurance plc proves this argument. In reviewing the 2010 SAS-based audited financial statements of the two entities by the FRCN, several errors in the accounts were noted. These included non-consolidation of subsidiaries, several accounting irregularities, and non-disclosure of tax liabilities. Furthermore, the corporate governance of the firm was found to be opaque and worrisome, the approach to changing external auditors was improper, and auditors were given confusing assignments. Following these findings, the FRCN suspended the management and requested the National Insurance Commission (NAICOM) to appoint an external auditor to conduct a substantive audit of the company. The companies were also instructed to publish in at least two widely read national newspapers that they have published misleading financial information to regulatory authorities.

The FRCN further ensures that companies comply with accounting standards by conducting quarterly and annual review of accounts and imposes sanctions for any errors found. The FRCN also requests the directors and external auditors to sign company reports in their own names. By this requirement, the directors and auditors are liable for any errors or noncompliance with accounting standards found in their audited reports. The recent case of Stanbic IBTC Holdings Plc confirms the enormity of noncompliance with these requirements.

Stanbic IBTC Holdings Plc is a Nigerian subsidiary of Standard Bank Group with head office in South Africa. Following the review of the financial statements of the entity for the years 2013 and 2014 coupled with the complaints lodged against the firm by non-controlling shareholders, several material accounting irregularities emanated. Among these irregularities were: the concealment of material related party transactions with the parent company, outrageous inflation of audit fees, noncompliance with IFRS with respect to tax disclosure, and the concealment of several other expenses. Reacting to these revelations, the FRCN directed the board of directors to withdraw the financial statements. Furthermore, it suspended the directors and audit partner that signed the accounts and a second partner review of the audit approach and quality control of Stanbic IBTC's auditor (KPMG Professional Services) was requested.

Figure 3.1 shows the enforcement period for both the SAS and IFRS. Although, the NASB strengthened its enforcement in 2010, this study argues that the effective period of the enforcement is 2011 where the NASB is reorganized into the FRCN and given

more powers and resources (ROSC, 2011). Although the enforcement in 2010 will reinforce the enforcement in 2011, the FRCN will be more thorough in its enforcement in 2011 due to the 'attention-based view'[34] (Marra and Mazzola, 2014). The FRCN will concentrate its attention towards improving the credibility of financial reports in its first year for two main reasons. Firstly, improving the credibility of the financial reports is the sole reason for reorganizing the NASB into the FRCN. Secondly, the procedures it takes in its first year determines how seriously the Nigerian firms would take it. Notwithstanding these arguments, a sensitivity analysis of the effective date of enforcement is conducted in section 3.9.

Figure 3.1 Effective Date of Enforcement

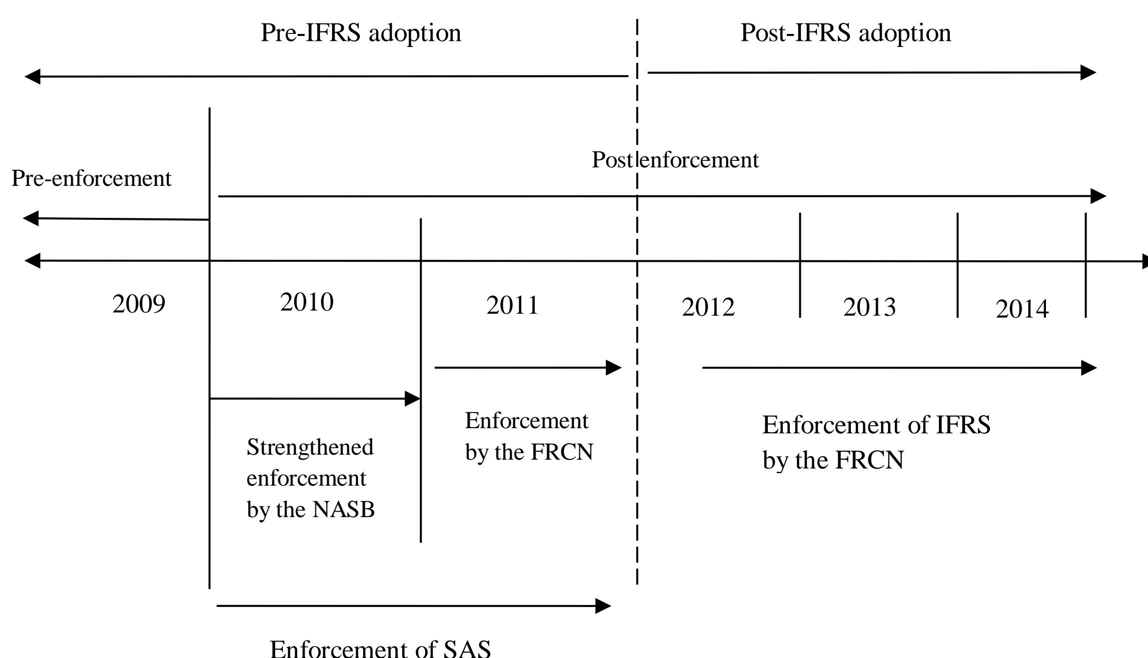
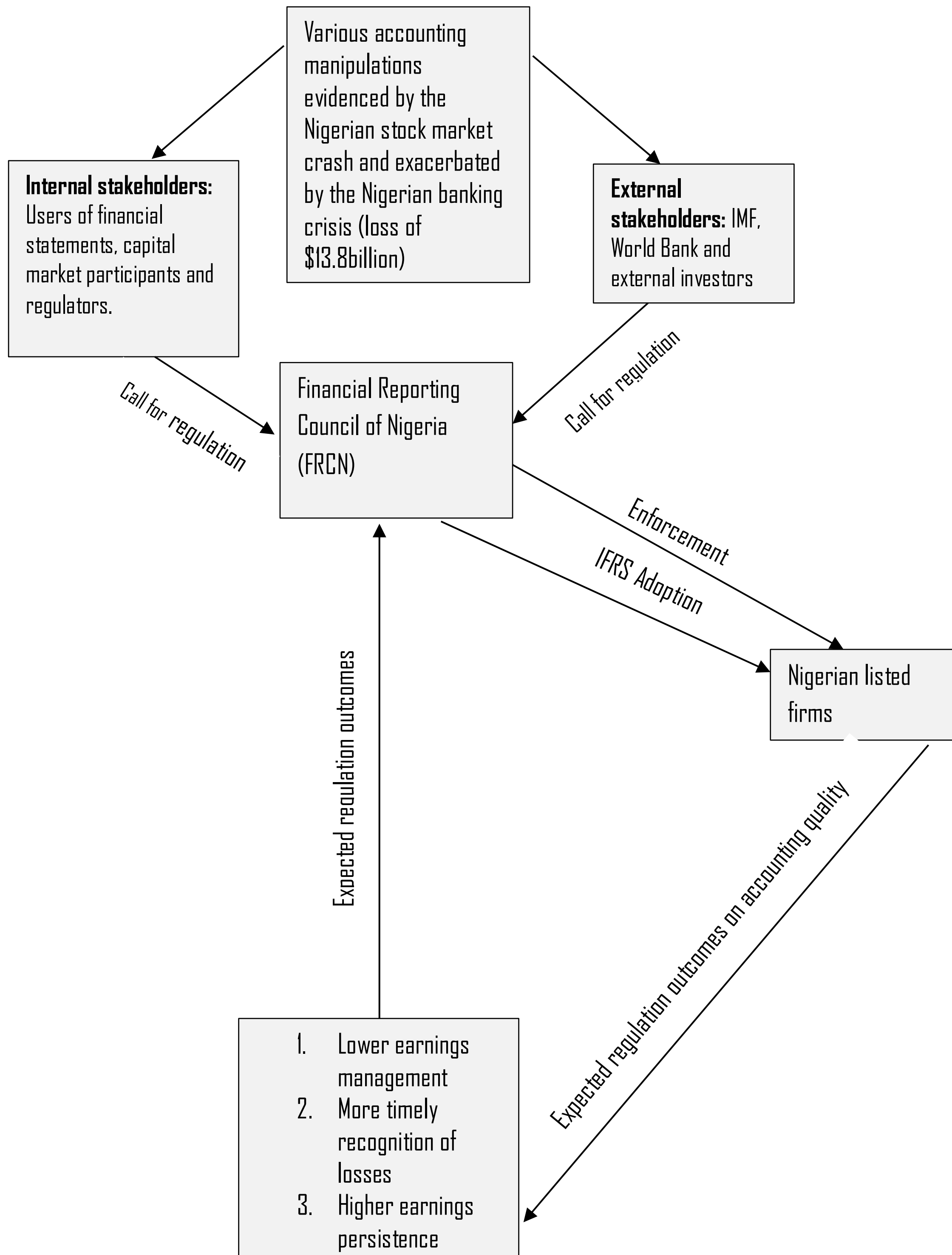


Figure 3.2 illustrates the demand for accounting reform and the expected outcome on accounting quality. The inability of the forces of demand and supply in ensuring a high-quality financial reporting together with weak enforcement by the NASB caused the Nigerian stock market to plunge into crisis in 2008/2009 (market failure). Consequently, internal and external stakeholders pushed for accounting regulation. As a result of the push, the Nigerian government established the FRCN to enforce accounting standards in 2011. In 2012, IFRS was adopted in Nigeria and was mandatory for all listed firms in Nigeria. The FRCN enforces accounting standards and checks the accuracy of financial

[34] The attention-based view argues that the monitoring of accounting processes is based on some specific contexts (in this case, the reorganisation of the NASB into FRCN for effectiveness), which motivates the regulatory institution to enforce accounting rules and standards.

reports against accounting manipulations. Through these two instruments, accounting quality of Nigerian listed firms is expected to improve through the reduction in earnings management, more timely loss recognition, and higher earnings persistence.

Figure 3.2 The Demand for Accounting Reform and Expected Outcome on Accounting Quality in Nigeria



3.5.2 Theoretical framework: public accountability model of accounting regulation

This study employs the public accountability model of accounting regulation to theorize the effect of the adoption of IFRS and the establishment of FRCN on accounting quality in Nigeria. The public accountability model of accounting regulation is a merger of the accountability paradigm and the public interest variant of regulatory theory (Tower, 1993). Regulatory theory has two variants: the public interest theory and the capture theory (Posner, 1974). According to the public interest theory, regulation "is supplied in response to the demand of the public for the correction of inefficient or inequitable market practices" (Posner, 1974, p. 337). Capture theory on the other hand, argues that regulation is designed for the benefits of some powerful interest groups (Stigler, 1971).

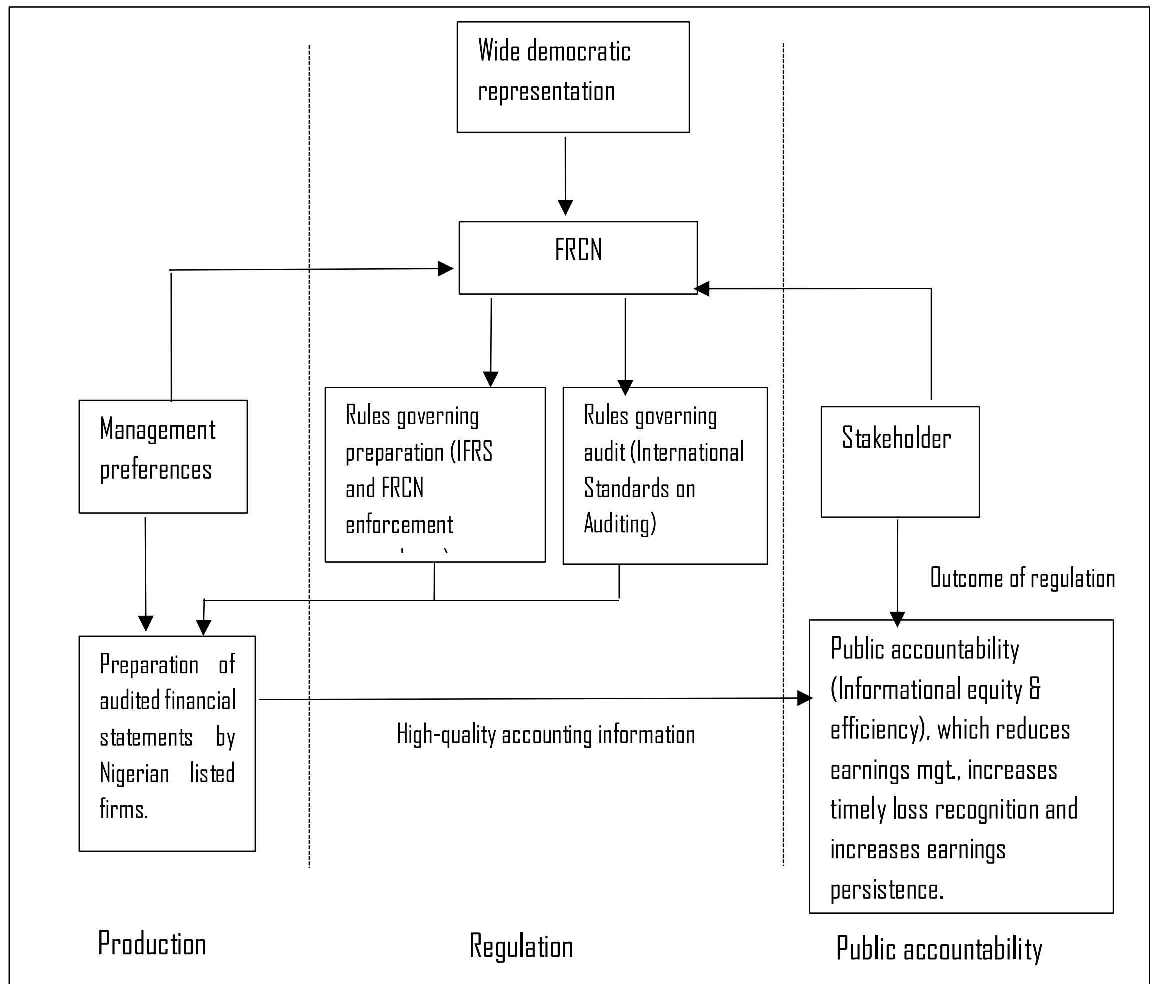
In the realm of accounting, the argument for regulation, based on the public interest variant, often ensues from the assumption that there is unequal possession of information (information asymmetry) among investors (Beaver, 1989). To protect the less informed, accounting regulation is instituted. This explanation, according to Lev (1988), is an "unconvincing motivation" (p. 3) for accounting regulation. Instead, he proposes that accounting regulation is motivated by the need to ensure "equality of opportunity - an equal access to information relevant for asset valuation. Or in the more familiar parlance – a state of symmetric distribution of information across investors" (p. 3).

Inequity in opportunities has social consequences (e.g., higher bid-ask-spread, higher transaction cost, and lower trade volume in the capital market) to the informed investors, the uninformed investors, and the society at large (Lev, 1988). These social consequences arise from the protective strategies adopted by less-informed investors when trading with informed sellers. For example, to protect themselves from informed investors, uninformed investors may invest in well-diversified portfolio for a long-term; or prohibit insiders like managers, through legal or contractual arrangements, from buying the shares of their own firms; or in extreme cases withdraw from trading in a specific security or from the market entirely.

Tower (1993) combines the principle of 'informational equity' from Lev's (1988) refinement of public interest variant of regulatory theory with the accountability paradigm. Tower (1993) posits that accounting regulation is needed to maintain public accountability of firms. Public accountability in this sense implies rendering account of an organization's activities to stakeholders that possess legitimate interest in the organization. "Accounting regulation is viewed as an instrument of accountability in that it can affect the nature of corporate information reported" (Tower, 1993, p. 71). Accounting regulation serves dual purposes – efficiency and equity - in the accountability

model of accounting regulation. Efficiency is to guard against underproduction of information while equity is interpreted as possessing equal access to information.

Figure 3.3 Public Accountability Model of Accounting Regulation



Source: Adapted from Tower (1993)

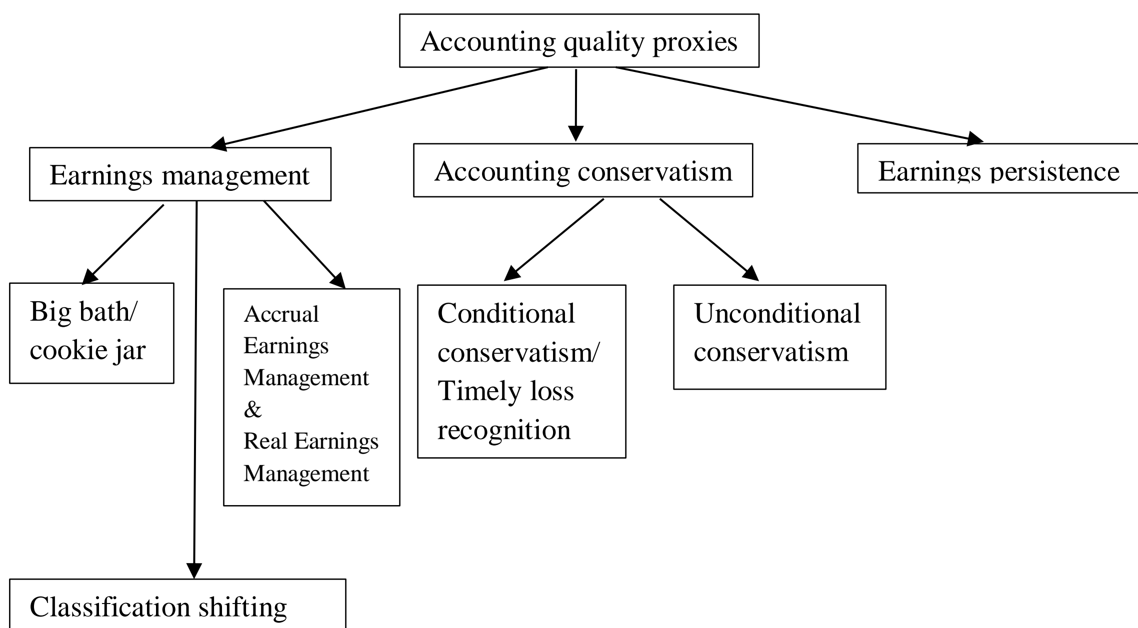
Figure 3.3 shows the three elements of the public accountability model of accounting regulation: production (fiduciary duty to report to all relevant stakeholders), public accountability (informational equity and efficiency), and regulation. The regulatory institution (FRCN) has to be composed of several stakeholders (wide democratic representation) (see footnote 33). In performing its duty, the FRCN takes input from all stakeholders and consider 'management preferences' by looking at the cost-benefit of a particular regulatory strategy to the listed companies. Regarding the preferences of the management, the regulatory body needs to take cognizance of the frequency of the reports by the management (e.g., preparation of quarterly reports) and the quality of communication (e.g., extent of disclosure). This study argues that the

FRCN, having been composed of several stakeholders, took into consideration the interests of both external and internal stakeholders. This led it to adopt the IFRS and stipulate monitoring procedures for ensuring compliance with accounting standards (SAS and later, IFRS) (i.e., rules governing preparation). The outcome of this process is that public accountability is ensured, as evidenced by sufficient production of information (informational efficiency) through IFRS-informed higher disclosures and equal access of all stakeholders to information (informational equity), which is guaranteed by the FRCN monitoring procedures. This outcome also ensures that the information produced by Nigerian listed firms meet various needs of financial statement users. For example, the information should be useful to lenders in assessing firms' conservatism (i.e., timely loss recognition) (Watts, 2003) and investors in assessing firms' earnings management behavior and the persistence of their earnings. Consequently, accounting regulation should reduce earnings management practices, improve timely loss recognition, and earnings persistence of Nigerian listed firms.

3.6 Accounting Quality Proxies

Accounting quality does not have a definition, it is only measured by some proxies (Dechow, Ge and Schrand, 2010). The proxies of accounting quality in this study are: earnings management, accounting conservatism, and earnings persistence. Figure 3.3 shows the three accounting quality proxies and their subdivisions.

Figure 3.4 Measures of Accounting Quality



The accounting quality measures in Figure 3.4 are considered in detail in the next section.

3.6.1 Earnings Management

According to Sevin and Schroeder (2005), earnings management is an attempt by the management of an organisation to influence reported income in the short-term. Earnings management could arise for various reasons, including an attempt to influence stock market evaluation of the firm, influence management compensation, and guard against violation of debt contracts. Earnings management can be of various types; these include big bath and cookie jar reserve, classification shifting, accrual earnings management (AEM) and real earnings management (REM). The various types of earnings management are discussed next. Figure 3.5 summarises the factors affecting each type of EM.

Figure 3.5 Summary of Factors Affecting Different Types of Earnings Management

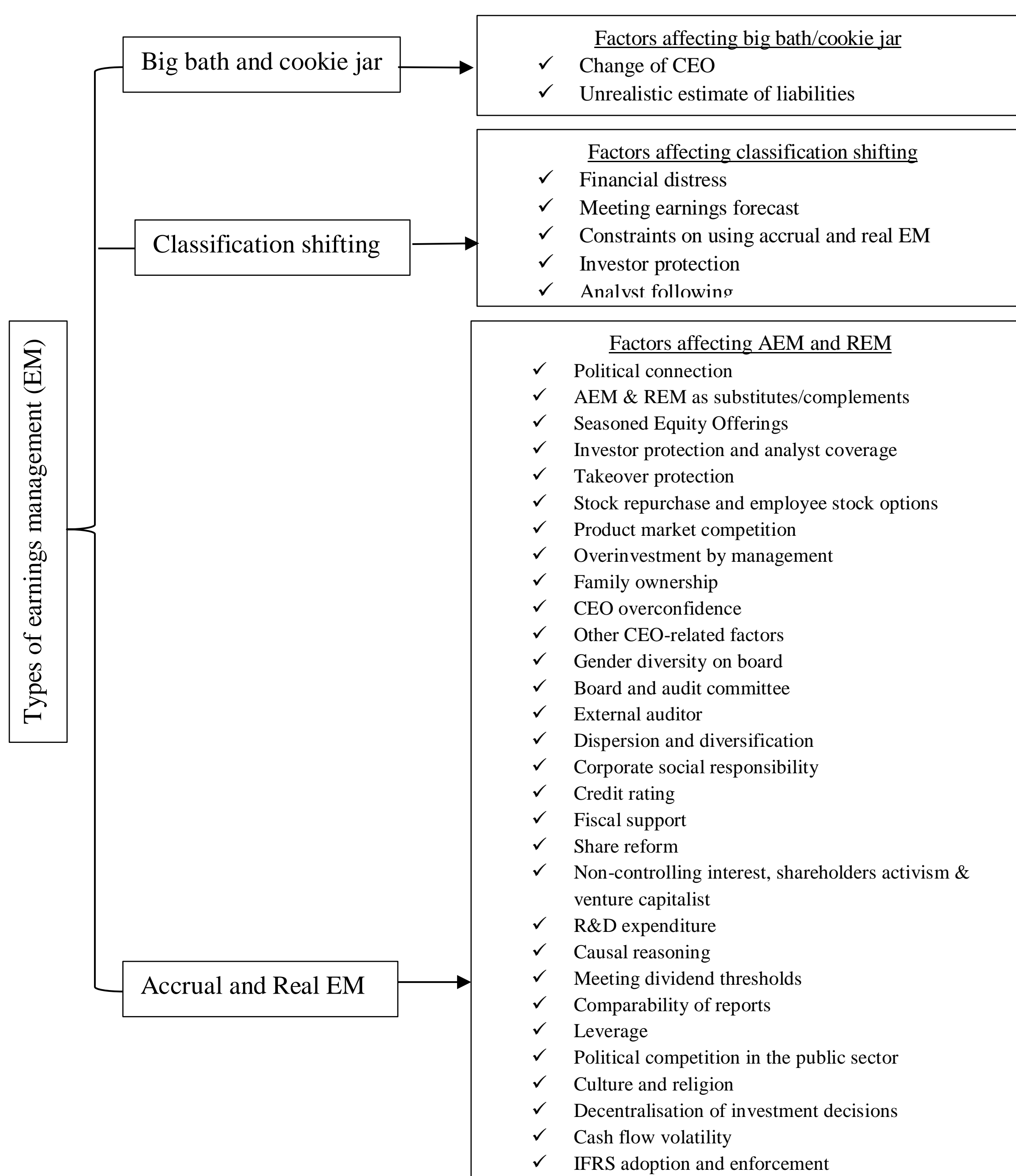


Figure 3.5 shows the different types of earnings management discussed in the preceding sections alongside the factors affecting them. AEM and REM are the most assessed by the literature. The last two factors affecting AEM and REM are enforcement and IFRS adoption. These two factors are explored in section 3.7 since this study is focused on them.

3.6.1.1 Big bath and cookie jar reserves

The big bath involves the write-off of large discretionary expenses by the management of firms with declining profits in order to further reduce their profits (Jordan and Clark, 2004). The notion is that the company and its management are not proportionately punished for these big write-offs from profits. Thus, rather than spreading the "big bath' to the future, it is absorbed by the current year's profits. The literature that highlight the determinants of big bath are discussed next.

Bornemann, Kick, Pfingsten and Schertler (2015) argue that incoming CEOs may take a big bath in their first year through discretionary expenses so as to blame the outgone CEO for any bad performance. They may further reduce performance benchmarks, which together with the big bath, help improve future performance. Using 7,097 firm-year observations of 691 savings banks, they find a positive association between CEO turnover and 'big bath'. In Malaysia, Majid (2015) find controlling outside shareholders to be negatively related to big bath based on 1,911 firm-year observations.

According to Levitt (1998), cookie jar reserves occur with the use of unrealistic assumptions to estimate liabilities such as warranty costs and possible sales returns that give rise to overstated values in good times, but subsequently reverse in bad times to cushion profits. Duh, Lee and Lin (2009) examine the use of impairment loss reversal to create cookie jar by Taiwanese firms. Using a sample of 55 firms that reversed their impairment losses alongside 55 control firms, they find the recognition of impairment losses to be associated with future reversal if such reversal would avoid decline in earnings. This was especially pronounced among firms with high debt ratio.

3.6.1.2 Classification shifting

Classification shifting is the misclassification of items within the income statement while income remains unchanged (e.g., shifting recurring expenses to non-recurring expenses) (Abernathy et al., 2014). The intent of classification shifting is to increase the core[35] earnings of a firm, which are major inputs into valuation decisions by stakeholders.

[35] Core earnings are operating earnings excluding special items and extra ordinary items.

Moreover, it is based on the core earnings that managers are compensated, thus increasing it will aid in assessing managers as high performers.

A number of factors facilitate the use of shifting classification by firms. These factors include:

(i) Financial distress

Nagar and Sen (2016) investigate the use of classification shifting by Indian firms. They observe that managers shift operating expenses to income-decreasing special items as well as net income increasing special items to operating income. They conclude that these shifting classification techniques by Indian firms are seriously influenced by financial distress. Similarly, in Korea, Baik, Cho, Choi and Lee (2016) examine the use of classification shifting in the statement of cash flows following IFRS adoption. Using 3,130 Korean firms, they find that firms with high bank ownership, high interest payments and financially distressed banks shift interest payments from operating cash flows to financing cash flows.

(ii) Meeting earnings forecast

McVay (2006) conducts a study on the use of classification shifting as an earnings management tool to meet analysts' earnings forecast in the US. He finds that managers opportunistically shift core expenses to non-recurring special items in the income statement to meet analysts' forecast, based on 76,901 firm-year observations. Athanasakou, Strong and Walker (2009) investigate the use of income-increasing accruals and classification shifting by managers to meet analysts' expectations in the UK from 1994 to 2002. In their result, they find no evidence of use of income increasing accrual by UK firms to meet analysts' forecasts. However, the shifting of small core expenses by larger firms to non-recurring expenses to meet analyst forecast exist. Barua, Lin and Sbaraglia (2010) investigate the use of classification shifting through discontinued operation. Using 79,643 firm-year observations, they conclude that managers shift income-decreasing core expenses to discontinued operation to increase core earnings and to meet or beat analysts' forecast.

Similarly, Haw, Ho and Li (2011) examine the use of classification shifting by managers in the East Asia within external and internal governance framework. With 3,992 firm-year observations from 2001-2004, they find that managers opportunistically shift core expenses to non-recurring special items to overstate current earnings. This intensifies when the aim is to meet earnings forecast. In Japan, Shirato and Nagata (2012) investigate the use of classification shifting by managers to meet analysts' forecast. They argue that

Japanese GAAP allows managers to have a higher discretion in classifying expenses under core and non-core expenses, thus, observing a strong tendency of shifting classification and that the tendency is higher when it is aimed at meeting analysts' forecasts.

(iii) Constraints on using accrual and real earnings management

Abernathy, Beyer and Rapley (2014) investigate the use of classification shifting by managers when there are constraints on using accrual earnings management or real earnings management. Based on 33,619 firm-years, they conclude that managers resort to account classification when REM is constrained by poor financial position, high institutional ownership, and when the firm has low market share in the industry. Managers also resort to account classification when AEM is constrained by low flexibility in the accounting system. Fan, Barua, Cready and Thomas (2010) extend the findings of Mc Vay (2006) and used core earnings expectation model. They observe the existence of classification shifting and this intensifies when managers are constrained in using accrual to manipulate earnings.

(iv) Investor protection and the number of analysts following

Behn, Gotti, Herrmann and Kang (2013) extend classification shifting research to an international context. They investigate the influence of the level of investor protection in a country and the number of financial analysts following on classification shifting. With 6,540 observations from 40 countries from 1998-2008, they find classification shifting in both weak and strong investor protection countries. Furthermore, financial analysts' following was found to curtail classification shifting majorly in weak investor protection countries.

3.6.1.3 Accrual and Real Earnings Management

Accrual Earnings Management (AEM) occurs when managers defer revenue into the future through the use of accrual or borrow revenue from the future to increase current period earnings through the use of accrual (Abernathy et al., 2014). Accrual earnings management involves the masking of the economic performance of a firm through the manipulation of accounting methods and estimates (Dechow and Skinner, 2000), for example, bad debt estimates and change of depreciation methods (Chen, Huang and Fan, 2012). Accrual earnings management can be constrained by tighter accounting regulations (Ewert and Wagenhofer, 2005). To confirm this assertion, Cohen, Dye and Lys (2008) find that accrual earnings management was on the increase prior to the

introduction of SOX while real earnings management was on the decline. However, post-SOX evidence showed a reverse case.

Real Earnings Management (REM), on the other hand, is the manipulation of real economic activities (Abernathy et al., 2014) of a firm in terms of timing and structuring (Roychowdhury, 2006; Ewert and Wagenhofer, 2005). Examples of real earnings management include overproduction of stock to reduce cost of goods sold, which consequently increases profit; reducing expenses on research and development (R&D) so as to increase profit in the short-term; short-term price discount offered to customers to which they may reasonably expect to continue in the near future thus, reducing future earnings. Earlier evidence of real earnings management was found in the reduction of R&D expenditure by the management (Bushee 1998; Dechow and Sloan, 1991). Roychowdhury (2006) finds evidence for the manipulation of real activities using COMPUSTAT data from 1987 to 2001. The main proxies used were price discount to boost temporary sales, overproduction to reduce the cost of goods sold, and reduction in R&D expenditure. Empirical evidence, however, show that R&D expenditure can be manipulated for accrual as well as real earnings management. Markarian, Pozza and Prencipe (2008) examine the capitalisation of R&D cost as an earnings management tool in Italy. Using 83 firm-year observations from 2001-2003, they find that companies use R&D capitalisation for earnings smoothing purposes. Similarly, Tahinakis (2014) investigate the cut in R&D expenditure as a real earnings management technique in the Eurozone. Using 1,468 firm-year observations from 2005 to 2013, they find that Eurozone firms reduced R&D expenditure to manage earnings.

Real earnings management is costlier than accrual earnings management, as the former erodes future economic values of the firm (Graham, Harvey and Rajgopal, 2005) due to value-adding economic activities being discountenanced to avoid short-term decline in profits. Engaging in REM, however, holds some benefits for firms or managers (if it is opportunistic). For example, real earnings management is more difficult to discover by auditors or regulatory authorities (Graham et al.., 2005; Badertscher, 2011; Gunny, 2010).

In most cases, managers are assumed to engage in earnings management to optimize their personal gains. On the contrary, Gunny (2010) argues, using COMPUSTAT data from 1988 to 2001, that real earnings management is not opportunistic but allows firms to meet current earnings benchmark, which leads to better performance in the future. The study of Taylor and Xu (2010) supports this conclusion by examining the impact of real earnings management on the future operating

performance of US firms. Using 18,267 firm-year observations from 1988 to 2003, they find that engagement in real earnings management does not lead to significant underperformance of firms.

Most earnings management studies have focused on real and accrual earnings management consequently leading to a large pool of factors that influence real and accrual earnings management. These factors are discussed below.

(i) Political connection

Braam, Nandy, Weitzel and Lodh (2015) investigate the trade-off between real earnings management and accrual earnings management practices of politically connected firms. The idea stems from their theorization that politically connected firms prefer higher secrecy, and the masking-potentials of political favours of real earnings management. Using a panel data set of 5,493 listed firms in 30 countries, they find politically connected firms to have higher potentials of substituting real earnings management practices for accrual earnings management. Furthermore, based on 11,116 firm-year observations, Chi, Liao and Chen (2016) find that firms with politically connected CEOs engage in lower accrual earnings management but higher real earnings management than firms with non-connected CEOs. Similarly, Li, Wang, Wu and Xiao (2016) find that tax-induced earnings management for firms with political connections bear a positive relationship with earnings management in China based on 3,581 firm year observations.

(ii) AEM and REM as substitutes or complements

AEM could bear a positive relationship with REM when they are complementary, or a negative relationship when they are substitute, depending on their relative cost and benefits. Chen, Huang and Fan (2012) investigate whether accrual earnings management and real earnings management are substitutes (as argued for by Barton, 2001; Zang, 2007) or complements (as argued for by Mizik and Jacobson, 2007; 2008; Matsuura, 2008) in Taiwan. Using 9,829 firm-year observations from 1994 to 2010, they find that Taiwanese listed firms strategically employ both accrual earnings management and real earnings management as complementary ways of managing earnings.

Zang (2012) also investigates whether firms substitute real earnings management for accrual earnings management or vice versa. Using 6,500 firm-year observations from 1987-2008 in the US, he finds that management substitute one form of earnings management strategy for the other based on their relative costs. Particularly, institutional ownership constrains AEM, thus, causing management to opt for REM. Furthermore, when the tax consequences of REM are high in the current period, firms may opt for

AEM. Chi, Lisic and Pevsner (2011) examine the use of real earnings management as a substitute when higher quality auditors constrain the use of accrual earnings management. They find that auditor expertise is associated with higher real earnings management for firms that meet earnings benchmarks or are just marginally above it. Furthermore, they find a positive relationship between audit tenure and real earnings management.

(iii) Seasoned equity offering (SEO)

Seasoned equity offerings are calls made by firms for subscription for their shares after their initial public offers. In other words, it is the subsequent issue of a firm's share capital out of the authorised share capital not yet held by the public. Teoh, Welch and Wang (1998) investigate the use of discretionary accruals by 1,248 firms on COMPUSTAT prior to seasoned equity issue. They find that firms use discretionary accrual to inflate earnings prior to the issue, resulting in poor subsequent stock returns and net income. Rangan (1998) find a similar result in his examination of 230 companies on COMPUSTAT between 1987 and 1990. Similarly, DuCharme, Malatesta, and Sefcik (2004) examine 10,232 offers with 324 lawsuits. They find that seasoned equity issuers engage in opportunistic manipulation of earnings, which exposes them to litigations.

Cohen and Zarowin (2010) investigate the engagement of seasoned equity offering firms in real earnings management and its implication for their underperformance afterwards. Using a sample of 1,511 offerings in the US from 1987 to 2006, they find that SEO firms engage in real earnings management and their subsequent underperformance is more informed by real activities management than accrual reversal. Thus, their findings support the findings of Ragan (1998) and Teoh et al. (1998). They equally find the use of AEM or REM around SEO to be informed by the management's ability to use AEM.

Guthrie and Sokolowsky (2010), based on a sample of 301 firms, find that firms manage earnings around seasoned equity offerings only in the presence of large block shareholders but not in their absence. Furthermore, Zhou and Elder (2004) find Big 4 auditors and industry specialist auditors to constrain earnings management for SEO firms using a sample of 2,453 seasoned equity offerings.

(iv) Investor protection and analyst coverage

Countries across the globe have laws and regulations that protect the rights of majority and minority investors. When such measures are perceived as inadequate, such countries are said to have weak investor protection, and when they are perceived as adequate, such countries have strong investor protection. It is assumed that the level of investor

protection determines earnings management since this has a bearing on the consequences of engaging in earnings management[36]. Thus, Enomoto, Kimura and Yamaguchi (2015) examine the effect of investors' protection on the use of accrual or real earnings management by firms across 38 countries. Using 222,513 firm-year observations from 1991 to 2010, they find that managers operating in countries with stronger investor protection opt for real earnings management instead of accrual earnings management. They further find that REM is constrained by the number of analyst following. Similarly, Zhang, Uchida and Bu (2014) find a negative relationship between legal protection in China and earnings management. Francis, Hasan and Li (2016) find that the strength of a country's legal-system is positively associated with real earnings management but negatively associated with discretionary accrual. They reached this conclusion using 245,180 firm-year observations. Sun and Liu (2016) investigate whether analyst coverage constrains real earnings management. Using 9,086 firm-year observations from 1996–2006, they find that analyst coverage does not constrain real earnings management, but it constrains accrual earnings management.

Due to pressure effect, managers' desire to meet consistent analyst expectation errors lead to earnings management. The study by Zhou and Wu (2016) find a support for this hypothesis in China using 170,864 forecast records.

(v) Takeover protection

Takeover is the purchase of a firm (target) by another firm (acquirer). This could be done through friendly means or hostile means. A friendly takeover involves the acquirer negotiating with the target's board, which may agree to the takeover if it feels it is beneficial to the shareholders. A hostile takeover on the other hand is a takeover by the acquirer without management's consent. It could be done through tender offer, where the acquirer publicly announces a price above the firm's market price; or through proxy fight, where the acquirer tries to woo a simple majority of the target's shareholders; or through creeping tender offer, where the acquirer purchases enough of the target's stock at the open market in a bid to change the target's management.

Takeover protection can be done through staggered board elections or poison pill (a dividend of warrants to purchase stock) or a combination of both. The relationship between takeover protection and earnings management is unclear, as it is supported by two theories. These are entrenchment theory and alignment theory (Zhao and Chen,

[36] For example, the SOX puts the liability of accounting manipulations on the directors of a firm. In such an instance, directors would be wary of involving in accrual earnings management since it is detectable by audit.

2012). Entrenchment effect holds that when boards are protected from removal by shareholders, they have the tendency to manipulate earnings at the expense of the long-term interest of shareholders. Alignment effect, however, argues that takeover protection aligns the interest of managers with the long-term interest of the firm. Based on this premise, Ge and Kim (2014) examine the effect of board governance and takeover protection on real earnings management post-SOX. They find that higher board monitoring is associated with increased real earnings management while takeover protection subverts managerial incentives for real earnings management. Zang (2012) arrives at a similar conclusion that SOX leads to decline in AEM, which may make firms engage in REM.

Zhao and Chen (2008) examine the effect of takeover protection (measured by staggered board election) on accrual earnings management. Using data from 1995–2002, they find that takeover protection is associated with lower accrual earnings management, thus, supporting the alignment effect.

Zhao, Chen, Zhang and Davis (2012) examine whether real earnings management towards meeting earnings target is associated with takeover protection. Using 7,966 firm-year observations from 1995-2008, they find that less protected firms are associated with higher real activities manipulation, while more protected firms are associated with lower real earnings management. Furthermore, they find that real activities manipulation to meet earnings target is associated with higher future performance.

(vi) Stocks repurchase and employee stock option

Firms may often buyback some of their outstanding shares when they perceive their shares to be undervalued. Since firms' outstanding shares are used for investment metrics such as market capitalisation and earnings per share computation, stock repurchases are often employed to manage earnings. Based on this argument, Bens, Nagar, and Wong (2002) find that executives divert resources from real investment to repurchase their stock so as to check the dilutive effect of employee stock options on earnings. Similarly, Bens, Nagar, Skinner and Wong (2003) investigate whether the intention of management's stock repurchase was driven by earnings management. Using 500 US firms on S&P rating from 1996 to 1999, they find that executives increase their stock repurchase to offset the dilutive effect of employee stock options on the one hand, on the other hand, they find that US corporate executives increase their stock repurchase when they sense that their earnings may not meet some target levels.

(vii) Product market competition

More competitive firms are perceived to be efficient. Thus, in a competitive market, the amount by which the market value of stock of efficient firms exceeds that of inefficient firms is considered a ‘premium’. Based on this premise, Markarian and Santalo (2014) argue that such price differential incentivises the inefficient firms to manage earnings so as to appear efficient. Using 70,000 observations from 1989 to 2011, they find a positive relationship between competition and both real and accrual earnings management. They conclude that this finding is stronger for low performing firms in a competitive market. Similarly, Datta, Datta and Singh (2013) argue that the pricing power of a firm affects its earnings management potentials. Firstly, firms with weak power are unable to pass on cost shocks to customers, hence, they engage in higher earnings management to meet market expectations than firms with strong pricing power. Based on this argument, using 43,628 firm-year observations, they find that firms with weak pricing power engage in more discretionary accruals. Mitra, Hossain and Jain (2013) also find a negative relationship between a firm’s power to differentiate its product and earnings management.

Furthermore, Liao and Lin (2016) find a negative relationship between the level of market competition in an industry and earnings management based on 3,346 repurchase announcements. They observe that managers engage in downward accrual earnings management to reduce their firm’s share price before a repurchase. Laksmana and Yang (2014) examine the effect of product market competition on both accrual and real earnings management. Based on 19,462 US firms from 1988 to 2007, they find both income-increasing discretionary accrual and income-increasing real earnings management to be prevalent among low competition industries than high competition industries. Based on this, they submitted that the market consequences of missing earnings benchmark are more severe for firms in low competition industries. Liao and Lin (2016) extend these studies by considering the relationship between product market competition and earnings management around ‘open-market repurchases announcement’ (p. 187). Based on 1,321 observations from 1988 to 2007, they find that repurchasing firms in competitive industries are associated with less income decreasing accrual and real earnings management.

(viii) Overinvestment by Managers

When a manager overinvests in prior periods, it creates an expectation in stakeholders of higher future returns arising from prior periods’ investments. However, since the future is unpredictable, managers may be under pressure to manage earnings to keep up with

stakeholders' expectations. Based on this assertion, Meo (2014) investigates the effect of managers' overinvestment on earnings management in the US. Using 10,809 firm-year observations from 1992 to 2011, he finds managers' overinvestment in prior periods to be related to earnings management in future periods. In a further analysis, he established that concealing such inefficient investment decisions through earnings management is associated with long-tenure CEOs.

(ix) Family ownership

Family ownership affects earnings management from two main theoretical viewpoints- agency argument and stewardship argument. From the agency perspective, Prencipe, Markarian and Pozza (2008) argue that the close tie between the board and the controlling family as well as the orientation of the controlling family to continue to control the firm, perhaps into perpetuity, make family firms less susceptible to short-term manipulation of earnings for capital market purposes. From the stewardship perspective, family members' relationship with lenders coupled with their desire to continually control the firm makes family-owned firms engage in earnings management to avoid debt covenant violation. Based on this premise, they examine earnings management by family-owned businesses in Italy. Using 129 firm-year observations from Milan Stock Exchange, they find that family-owned firms engage in earnings management through R&D cost capitalization but engage less in income smoothing.

Wang (2006) examines the effect of family ownership on earnings quality. Using S&P 500 firms, he finds family-owned firms to be associated with lower abnormal accrual. Similarly, Ali, Chen and Radhakrishnan (2007) investigate the earnings management behaviour of family-owned firms in the US. Since family-owned firms are less reliant on the capital market, they are said to face only type II agency problem (separation of ownership and control between family members and minority interest). Using Standard and Poor's (S&P) 500 firms from 1998-2002, they find that family-owned firms engage less in accrual earnings management than non-family owned firms.

Achleitner, Gunther, Kaserer and Siciliano (2014) investigate how family firms use real earnings management and accrual earnings management in Germany based on socio-emotional wealth theory. Using a sample of 402 listed family firms and 436 listed non-family firms, they find that family firms avoid the use of real earnings management so that the value of the family business is not eroded in the future. This is in a bid to have something tangible to be bequeathed to family members in the future. Alternatively, they

engage in income decreasing accrual earnings management to retain their value within the firm.

Ding, Qu and Zhuang (2011) investigate the earnings quality of publicly listed family-owned firms in China. Using a sample of 1,542 observations from 2003 - 2006, they find that family-owned firms exhibit higher discretionary accrual. They attributed the findings to the low investor protection in China, which allows controlling family members to expropriate minority shareholders. Similarly, Razzaque, Ali and Mather (2014) investigate the use of real earnings management by family-owned firms in Bangladesh, an environment with less investors' protection. Using 691 firm-year observations from 2006 to 2011, they find that family-owned firms engage more in real earnings management than non-family owned firms. As this is in contrast to Achleitner et al.'s (2014) result, they explain that this may be due to institutional differences.

Bertin and Itturiaga (2014), using a sample of 3,559 listed firms in the UK, Canada, US, Spain, Italy and France, find that the higher the challenge to the control of family shareholders, the lesser the degree of earnings management.

(x) CEO overconfidence

Overconfidence is the tendency of individuals to overestimate their knowledge, abilities and the precision of their information, which creates an expectation of unrealistic outcome (Bhandari and Deaves, 2006). Based on this notion, Hsieh, Bedard and Johnstone (2014) argue that overconfident CEOs may discountenance regulatory restrictions (in this case, SOX) and set unrealistic targets, which they may try to meet through earnings management. Using 5,319 firm-year observations from 1991 to 2009, they find that CEO overconfidence is associated with both accrual and real earnings management. In Taiwan, Li and Hung (2013) examine the impact of managerial overconfidence on earnings management with family ownership as a moderating variable. Using 6,661 firm-year observations from 2001-2009, they find that managerial overconfidence is positively associated with earnings management and family ownership negatively moderates this relationship.

Furthermore, Schrand and Zechman (2012) examine the effect of overconfidence on earnings management in the US. They compare 36 misreporting firms according to SEC with a matched sample. They find that managerial over confidence creates optimistic bias, which sets such management on a 'slippery slope' of subsequent misreporting to continually meet earnings target. This study is complemented by the research of Hribar and Yang (2015), who investigate the influence of managerial overconfidence on

optimistic bias and consequently earnings management. Using a sample of 640 firms listed on the Fortune 500 from 2000 to 2007, they find that managerial overconfidence creates optimistic bias in voluntary management forecast which leads to increased likelihood of missing forecasts and hence, resulting in earnings management.

(xi) Other CEO related factors

Hazarika, Karpoff and Nahata (2012) argue that forced CEO turnover is an indication of board disciplinary action against CEOs engaging in accounting manipulations before it leads to costly market actions. They find a positive relationship between forced CEO turnover and earnings management, using a sample of 1,895 CEO turnovers. Choi, Kwak and Choe (2014) extend the empirical support for the effect of CEO turnover on earnings management. Using a sample of 403 CEO turnovers with a control sample of 806 non-turnovers, they find that CEOs that are dismissed are associated with higher earnings management, while incoming CEOs (from within the firm), following such dismissal, are associated with lower real and accrual earnings management. On the other hand, where a CEO peacefully departs from the firm, the replacing CEO from outside the firm engages in upward management of earnings.

Social ties are informal relationships between individuals or groups arising from prior or present employment, education, and other activities (e.g. club membership). Krishnan, Raman, Yang and Yu (2012) investigate the influence of social ties between CEO/CFO and the other board members on earnings management in the US. They argue that the oversight function of the board is weakened in the presence of social ties, as independence could be jeopardised. Using a sample of 1,300 firms from 2000-2007, they find that a social tie between CEO/CFO and other board members is positively related to earnings management. Similarly, Hwang and Kim (2012) investigate the impact of social ties between CEOs and audit committee members on earnings management. Using 954 firm-year observations from 1996 to 2005, they find a significant positive relationship between CEOs' connection with audit committees and discretionary accrual.

The origin of a CEO is another determinant of earnings management. The argument arises partly from the decision horizon hypothesis (Dechow and Sloan, 1991), which holds that top managers who perceive their tenure as limited may not act in the best interest of the firm. It is assumed that outside CEOs have less survival expectation (Allgood and Farrell, 2003) caused by hostility from inside managers and the lack of knowledge of the firm, which may result in low performance of the outside CEO. There is also a high expectation from the market and the board on the performance of the outside

CEO, which may be unrealistic. Thus, the outside CEO is under pressure to show his/her worth by achieving high profit. When this is coupled with the horizon problem, it may lead the outside CEO to engage in earnings management at the earlier stage of their tenure. Against this background, Kuang, Qin and Wielhouwer (2014) investigate how the origin of CEOs impacts on their earnings management behaviour. That is, whether CEOs/CFOs from within the firm engage more in earnings management than those from outside the firm, especially at the early stage of their tenure. Using 5,607 CEO-year observations from1992-2008, they find that outside CEO are associated with income-increasing accrual at the early stage of their career. However, the difference between outside and inside CEOs' earnings management practices evens out after the short-run.

Regarding CEO tenure, Ali and Zhang (2015) investigate the association between CEO tenure and accrual earnings management. They argue that earnings reported by CEOs at the early stage of their service has a great significance on the market's assessment of their ability as new CEOs, and as such, CEOs tend to manage earnings to meet this expectation. Using 20,206 firm-year observations from 1992–2010, they find that CEOs at the early years of their career tend to overstate earnings than at the later years. After controlling for early years' overstatement of earnings, they find that CEOs overstate earnings towards the end of their tenure, thus confirming the horizon problem.

Chen, Luo, Tang and Tong (2015) also conducted a study on whether interim CEOs engage in earnings management in the hope that good performance achieved by managing earnings will elevate them to a permanent position. Using 145 interim CEO succession events in the US from 2004-2008, they find that interim CEOs are more likely to engage in income-increasing discretionary accruals and that this likelihood of engaging in earnings management raises the likelihood of being promoted as permanent CEOs.

Arguing that the debt component of executive compensation affects earnings management tendencies of management, Dhole, Manchiraju, Suk (2016) examine the impact of CEO inside debt[37] on earnings management. Using 4,845 firm-year observations, they find that CEO inside debt reduces accrual and real earnings management.

(xii) Gender diversity in the board

Arun, Almahrog and Aribi (2015) investigate the influence of board diversity on earnings management in the UK. Using 1,217 firm-year observations from 2005-2011, they find boards with higher females and boards with independent female directors to be less

[37] Inside debt refers to the notion of compensating CEOs with firm's debt.

associated with discretionary earnings management. The idea of the research stems from the fact that females are less aggressive, more ethical and risk averse. Thus, they are more unlikely to engage in earnings management. They also exhibit more monitoring and better communication to investors (Adams, Gray, and Nowland, 2010). Similarly, Srinidhi, Gul and Tsui (2011) studied the impact of diversity on earnings quality of US firms. Using 2,480 firm-year observations from 2001-2007, they find firms with female directors to be associated with less discretionary accruals. Kyaw, Olugbode and Petracci (2015) investigate the effect of gender diversity of companies' board on the degree of earnings management. Using a sample of 970 companies from all European countries from 2002 to 2013, they find that gender diversity in the board is associated with lower earnings management.

On the contrary, Thiruvadi and Huang (2011) examine the association between gender diversity in audit committee and earnings management. Using 320 firms from the S&P Small Cap 600 in 2003, they find the presence of female director in audit committee to be associated with income-decreasing discretionary accrual. In a similar vein, Ye, Zhang and Rezaee (2010) find no significant difference between earnings management by boards that have female directors and boards that have no female directors in China. They attribute this to the institutional difference between China and other developed countries where a negative relationship has been documented. Similarly, Sun, Liu and Lan (2011) examine the effect of gender-diverse independent audit committee on earnings management. Using 525 firm-year observations of S&P firms from 2003-2005, they find no association between the proportions of female directors in audit committee and the degree of earnings management.

(xiii) Board and Audit committee composition

Xie, Davidson and Dadalt (2003) investigate the effect of the board and audit committee independence as well as the financial expertise of outside directors on earnings management of US firms. Using 280 firm-year observations from 1992 to 1996, they find independent boards and the financial expertise of outside directors to be associated with lower earnings management. Similarly, financial expertise of independent audit committee members is associated with lower earnings management. Park and Shin (2004) also investigate the effect of board independence and financial expertise on earnings management in Canada. Using 539 firm-year observations from 1991-1997, they conclude that board independence does not constrain abnormal accruals, but financial expertise of the board does.

Regarding audit committee composition, Peasnell, Pope and Young (2005) examine the effect of board independence and audit committee on earnings management towards meeting analysts' earnings forecast, avoiding reporting losses, and reporting a growth in profit. Using 1,991 firm-year observations of UK listed firms from 1993 to 1996, they find board independence to be negatively related to income-decreasing accrual earnings management, while audit committee does not exert any influence on earnings management. Ghosh, Marra and Moon (2010) find board size and audit committee size to be negatively associated with discretionary accruals based on 9,290 observations.

Bedard, Chtourou and Courteau (2005) examine the effect of audit committee financial expertise and independence on income-decreasing and income-increasing abnormal accruals in two groups (one with relatively high accruals, and the other with relatively low abnormal accruals) of US firms in 1996. They find audit committee independence and financial expertise to be negatively associated with income-increasing and income-decreasing abnormal accruals respectively.

The ability of audit committee to constrain opportunistic earnings management of managers is influenced by their financial expertise as well as their relative status (ability to influence outcome based on perceived personal attributes and skills) compared to the board. Based on this assumption, Badolato, Donelson and Ege (2014) examine the effect of status and financial expertise of audit committees on accounting irregularities and discretionary accrual in the US. Using 29,073 firm-year observations from 2001 to 2008, they find that audit committee with financial expertise and higher relative status is associated with lower accounting irregularities and abnormal accrual. The idea of this study primarily stems from the fact that the ability of the audit committee to check management excesses is dependent on the respect they command from the management and also their level of financial expertise.

(xiv) External auditor and earnings management

Gul, Jaggi and Krishnan (2007), using a sample of 4,720 US firms from 2000 to 2001, find that audit fees, as a proxy of auditor independence, is positively related to positive discretionary current accrual for short-tenured auditors.

Gul, Fung and Jaggi (2009) investigate the impact of auditor tenure on earnings quality. The argument stems from the fact that short-tenured auditors usually do not have firm-specific knowledge at inception and may have to rely on information supplied by the client, which may hinder high-quality audit and hence, lower accounting quality. Secondly, lowballing, in which short-tenured auditors charge lower fees at inception and

may be unwilling to retain the client can also lead to lower accounting quality. Thirdly, high-quality auditors will probably drop low quality clients. Using 32,777 firm-year observations from 2000-2004, they find that shorter audit tenure is associated with higher discretionary accruals.

Ittonen, Vahamaa and Vahamaa (2013) examine the effect of a female external auditor on firms' earnings management. The idea stems from the fact that female auditors are more effective and accurate at processing information (Chung and Monroe, 2001), and display greater efficiency in audit judgement (O'Donnell and Johnson, 2001). Using 770 firm-year observations from 2005 to 2007, they find that female audit engagement partners are associated with smaller abnormal accruals.

(xv) Geographic dispersion/diversification and earnings management

Geographically diverse firms have larger investor base. Thus, they are under watch by more investors, analysts, and regulatory institutions. The use of AEM by these firms has a higher probability of being detected. Hence, they may choose to engage in real activities manipulation, which is more difficult to discover. On this basis, Shi, Sun and Luo (2015) investigate the effect of geographic dispersion of firms on their choice of accrual or real earnings management in the US. Using 51,077 firm-year observations from 1994-2011, they find that geographically diverse firms use more manipulation of real activities than discretionary accruals when compared to geographically concentrated firms.

Agency conflict hypothesis holds that complexity of an organisation and likely agency gains influence managers' ability to manipulate earnings. Mehdi and Seboui (2011) confirmed this notion using 9,888 firm-year observations of US firms. In line with transparency hypothesis, Rodríguez-Pérez and Hemmen (2010) argue that for more complex businesses, as a result of diversification, debt has a positive relationship with positive discretionary accrual. They based this conclusion on an analysis of 2,893 firm-year observations. Vasilescu and Milo (2016) examine the impact of industrial diversification on earnings management. Contrary to geographic diversification and using 229 UK target firms in a merger and acquisition arrangement, they find a negative relationship between industrial diversification and earnings management. This agrees with the conclusion of Jiraporn, Kim and Mathur (2008) from 846 firm-year observation.

(xvi) Corporate social responsibility and earnings management

Kim, Park and Wier (2012) argue that socially responsible firms should equally exhibit their social responsibility by holding unto the highest level of ethical standards in their financial reporting, thereby presenting more transparent reports for investors and other

stakeholders. Based on this argument, they investigate the impact of corporate social responsibility on accrual and real earnings management of US firms. Using 18,160 firm-year observations from 1991 to 2009, they find that 'CSR firms' are less likely to manage earnings through discretionary accruals as well as real activities manipulation. Bozzolan, Fabrizi, Mallin and Michelon (2015) examine the influence of CSR orientation of firms on the trade-off between real earnings management and accrual earnings management. Using 5863firm-year observations, they find that CSR firms substitute AEM for REM. This is based on the fact that REM is a manipulation of a firm's business activities and may have future adverse effect on the firm. In the same vein, Gras-Gil, Manzano and Fernandez (2016) find a negative association between corporate social responsibility and earnings management in Spain. They arrived at this conclusion from their analysis of 286 firm-year observations from 2005 to 2012.

(xvii) Credit-rating and reputation

Brown, Chen and Kim (2015) considered the impact of credit rating by S&P (Standard & Poor) on the real earnings management behaviour of manufacturing firms in the US. Based on 6,402 firm-year observations from 1989 to 2009, they find that manufacturing firms at the investment-speculative borderline (BBB and BB) engage in the most aggressive income-increasing real activities manipulation.

Wu, Gao and Li (2016) examine the impact of reputation through media coverage on earnings management. Using 2,556 firm-year observations, they find media coverage to be positively related to earnings management.

(xviii) Fiscal support

Fiscal support in the form of preferential tax treatment and financial subsidy reduces the pressure on a firm to engage in earnings management (He, 2016), as this substitutes earnings management in helping a firm meet the desired earnings benchmark. In the context of China, He (2016) explored this assertion. Using a sample of 3,290 firm-year observations, he finds a negative relationship between fiscal support and earnings management.

(xix) Share reform

Kuo, Ning and Song (2014) examine the effect of split share structure reform on earnings management in China. The split share structure reform involves the separation of Chinese companies' shares into tradable and non-tradable, with two-third of the former being held by the state, which consequently reduces expropriation by the majority shareholders.

Using 13,840 firm-year observations, they find that the reform constrained the use of discretionary accruals but increased the use of real earnings management.

(xx) Non-controlling interest, shareholder activism and venture capitalist

When controlling shareholders manage earnings in such a way that non-controlling shareholders' interest is not jeopardised, opportunistic earnings management is more pronounced, as controlling shareholders face less opposition from non-controlling shareholders. Based on this notion, Beuselinck and Deloof (2014) find that signed discretionary accruals facilitated by intra-group transactions are pronounced in group firms based on 5,084 firm-year observations.

Hadani, Goranova and Khan (2011) argue that increased pressure on the management, through shareholder activism, may influence the management to manage earnings. Based on this notion, they conducted a study using 348 firms from the S&P 500. They find a positive relationship between shareholder activism and earnings management.

Venture capitalist serve as external monitoring agents that influence earnings management of companies around IPO. Wongsunwai (2013) investigates this notion and find a negative relationship among accrual and real earnings management and high-quality venture capitalist.

(xxi) Research and development expenditure

Research and Development creates earnings volatility, which managers generally perceive as unfavourable. To avoid this, management may engage in the management of accruals. Based on this notion, Shust (2015) find a positive relationship between accrual earnings management and R&D expenditure based on 77,003 firm-year observations.

(xxii) Causal reasoning

Management commentaries in companies' annual reports incorporate explanations of companies' performance and future prospects. In recent times, such causal explanations by management have been accentuated by the demands of IASB and FASB. Aerts and Zhang (2014) argue that management use commentary as an impression management tool aimed at increasing "perceived plausibility of reported performance and mitigate performance related concerns" (p. 770). On this note, using 26,297 firm-year observations, they find a positive relationship between signed discretionary accrual and management causal reasoning.

(xxiii) Meeting dividend thresholds

Managing earnings towards meeting dividend threshold (expected dividend proxied by prior year dividend) may be motivated by debt covenants that restrict the payment of dividends relative to the level of earnings. This is confirmed by Daniel, Denis and Naveen (2008) among S&P 1500 firms in the US. Atieh and Hussain (2012) on the other hand, find that UK firms similarly use accrual earnings management to meet dividend thresholds. However, they argue that such behaviour in the UK context is motivated by the prevalent use of dividend-based accounting ratios (e.g., dividend cover) in decision making.

(xxiv) Comparability of reports

Sohn (2016) examine the influence of comparability of firms' report with other firms in the US on real and accrual earnings management. Using a sample of 32,211 firm-year observations they find that firms' reports comparability is negatively related to accrual earnings management and positively related to real earnings management.

(xxv) Leverage and earnings management

Anagnostopoulou and Tsekrekos (2017) examine the effect of leverage on the trade-off between accrual earnings management and real earnings management. Using a sample of 9,855 and 85,305 suspect and non-suspect firms' firm-year observations, respectively, they find real earnings management to be positively related to leverage. However, at a very high leverage level, firms adopt a mix of real and accrual earnings management.

(xxvi) Transparency and earnings management

Liu, Hsu and Li (2015) examine the effect of information disclosure and transparency ranking system on earnings management in Taiwan. Based on 8,093 firm-year observations, they find a negative relationship between both accrual and real earnings management and information disclosure and transparency ranking.

Transparency in disclosure is argued to be signalled by a detailed description of reserves and allowances in the financial statement. Based on this understanding, Cassell, Myers and Siedel (2015) examine the relationship between detailed description of provision and reserves and discretionary accruals. Using a sample of 5,596 firm-year observations, they find higher transparency to be negatively related to accrual-based earnings management.

(xxvii) Political competition in the public sector

In the public sector, in Portuguese municipalities, Ferreira, Carvalho and Pinho (2013) examine the use of discretionary accruals to manage earnings by local politicians due to political competition. Using data from 2002 to 2008, they find political competition to be positively related to discretionary accrual.

(xxviii) Culture and Religion

Guan and Pourjalali (2010), based on 84,748 firm-year observations, find individualism, power distance and masculinity to be positively related to earnings management while uncertainty avoidance is negatively related. On the contrary, Zhang, Liang and Sun (2013) find collectivism, as opposed to individualism, to be positively related to earnings management from an analysis of 41 countries.

Du (2015) and Du, Jian, Lai, Du and Pei (2015) based on a sample of 12,061 and 11,357 firm-year observations respectively, find that religion mitigates unethical business practices and hence, has a negative relationship with earnings management.

(xxix) Decentralisation of investment decisions

Using a sample of 460 firm-year observations, Dhaoui (2008) find the decentralisation of R&D decisions to increase information asymmetry and manager's autonomy, consequently increasing earnings management.

(xxx) Cash flow volatility

Using 14,528 firm-year observations, Das, Hong and Kim (2013) find a positive relationship between CEO bonus and earnings smoothing. They noted that the increase is stronger for firms with higher cash flow volatility. Based on this, they argued that earnings management is related to overall expected benefits of the firm and not necessarily due to opportunistic behaviour.

3.6.2 Accounting Conservatism

Timely loss recognition is an alternative name for conditional accounting conservatism (Ruch and Taylor, 2015). Accounting conservatism is defined by Ruch and Taylor (2015) as "accounting policies and tendencies that contribute to a downward bias in accounting net asset value relative to economic asset value" (p. 20). Accounting conservatism is divided into conditional conservatism (timely loss recognition) and unconditional conservatism. Conditional conservatism is the timeliness of recognition of bad news relative to good news in the financial statement (Mora and Walker, 2015). Accounting system generally requires a higher verification of good news than bad news (i.e., prudence

concept), thus resulting in asymmetric recognition of good news relative to bad news, which is called conditional conservatism (Ruch and Taylor, 2015; Mora and Walker, 2015). Examples of conditional conservatism include recognising inventory at the lower of stock or net realisable value, impairment of non-current assets and impairment of goodwill (Ruch and Taylor, 2015). A key feature of conditional conservatism that distinguishes it from unconditional conservatism is that conditional conservativism is economic news dependent while unconditional conservatism does not depend on economic news. Conditional conservatism is also called earnings conservatism, ex-post conservatism or information-driven conservatism (Mora and Walker, 2015).

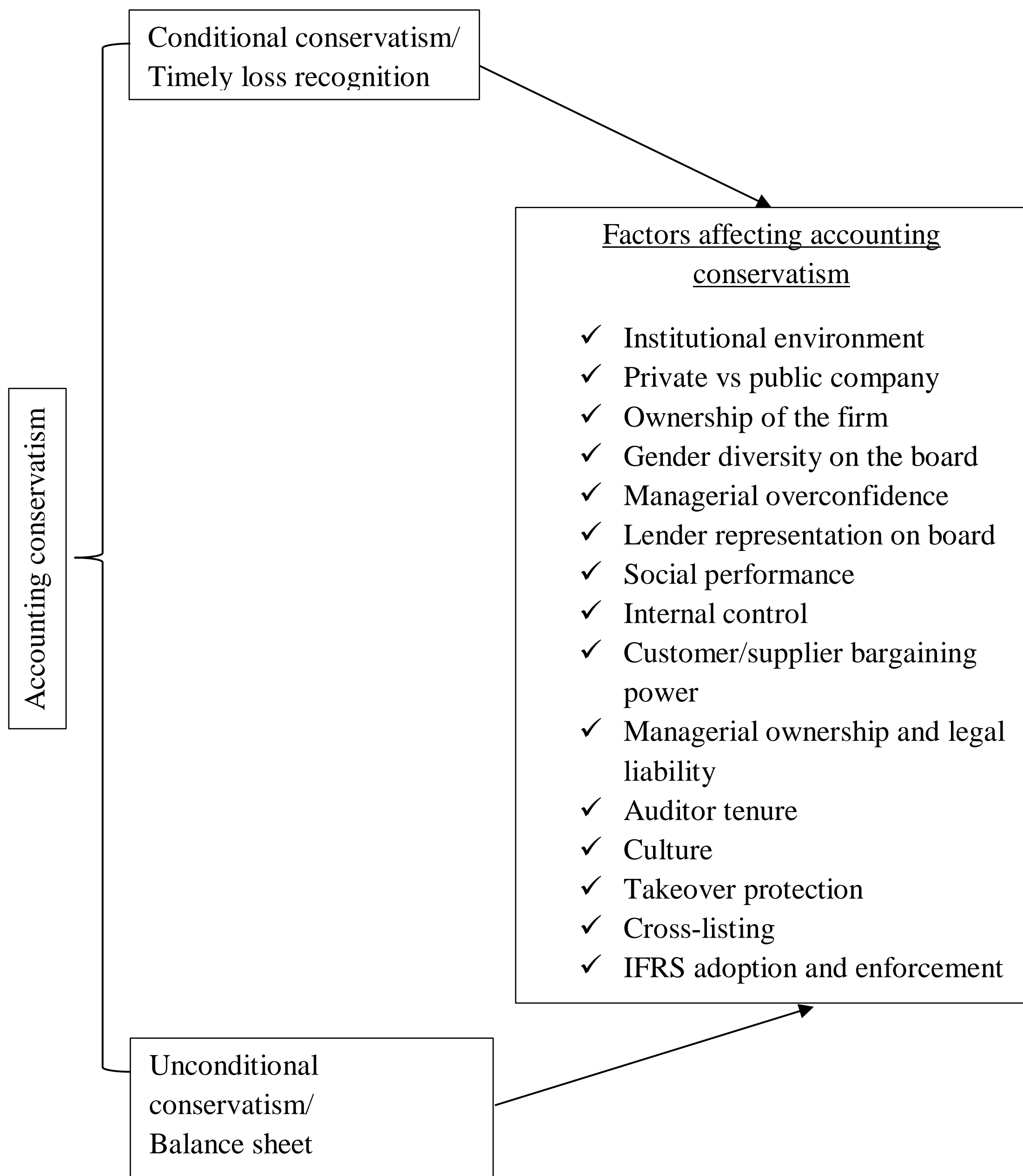
Unconditional conservatism or balance sheet conservatism or ex-ante conservatism occurs when assets are stated in the statement of financial position at values below their neutral value (Mora and Walker, 2015). Unconditional conservatism can either occur through 'conservative asset recognition criteria' or 'conservatism in book value' (Mora and Walker, 2015, p. 623). Conservative asset recognition criteria are used when an expenditure that has a likelihood of generating future benefits is not treated as an asset in the financial statement but as an expense. An example of this is the research cost that is usually expensed, though there is a possibility of it generating some future economic benefits. Conservatism in book values is caused by conservative depreciation rates. Conservative depreciation rates are depreciation rates that are greater than the economic rate of depreciation. Economic rate is depreciation rate that ensures that an asset generates a constant accounting rate of return over its useful life. Thus, the use of conservative accounting depreciation rate instead of economic rate leads to unconditional conservatism. Examples of unconditional conservatism include expensing of research and development costs, use of LIFO method of inventory valuation, expensing advertising costs, over provision for doubtful debt and the use of accelerated depreciation rates (Ruch and Taylor, 2015).

Conservatism as a measure of accounting quality is largely debated. Depending on which perspective it is viewed from, conservatism can be a worthy accounting quality or an unworthy one. Generally, from a valuation perspective, which assumes accounting information is only relevant for equity valuation and for investment decisions, conservatism is an undesirable accounting attribute. However, from a contracting perspective, it shows the worst position an organisation can be after deducting all possible losses. Hence, the credit worthiness of a firm in such worst scenario can be determined.

Accounting conservatism is affected by many factors as detailed in empirical literature. Figure 3.6 shows the summary of the factors affecting accounting

conservatism. The last two factors (IFRS adoption and enforcement) are discussed in section 3.7, since this study is concerned about these two factors and a large body of literature exist on them.

Figure 3.6 Summary of Factors Affecting Accounting Conservatism



3.6.2.1 Conservatism and institutional environment

The idea stems from the fact that a firm's managerial incentive is largely shaped by the institutional environment of the firm's operation. The institutional environment of a firm shapes the quality of accounting number (in this case, conservatism) through the interplay of "accounting standards, legal, market, regulatory, and political pressures, and reporting

discretion exercised by managers" (Bushman and Pitoroski, 2006, p. 108). Based on this notion, Ball, Kothari and Robin (2000) investigate the difference in the practice of accounting conservatism between code law countries and common law countries. They argued that the high politicisation of firms' governance structure in code law countries through the representation of contracting agents on firms' boards reduces information asymmetry; hence, public disclosure is deemphasised. In common law countries, on the other hand, public disclosure is used to reduce information asymmetry as stakeholders' agents, beside shareholders, are not represented on firms' boards. Using 40,359 firm year observation from 11 developed countries, they conclude that common law countries are characterised by timelier recognition of losses than their code-law counterparts.

Similarly, Bushman and Piotroski (2006) examine the relationship between some characteristics of country level institutions and conditional conservatism. Using 86,927 firm-year observations from 38 countries from 1992-2001, they reach the conclusion that high-quality judicial system and strong investor protection in a country are associated with more timely loss recognition. Furthermore, strong public enforcement (measured as the existence of a regulatory body) is positively associated with timely loss recognition. Also, common law countries with high state involvement are characterised by lower timely loss recognition relative to those with lower state involvement. On the contrary, in civil law countries, high state involvement is associated with higher timely loss recognition.

3.6.2.2 Private/public company and accounting conservatism

Ball and Shivakumar (2005) examine the effect of company type on timely loss recognition. The motive for the study stems from the notion that regardless of similar regulatory mechanisms, private companies face a different market for financial reporting from public companies. They contend that private firms are less likely to use public financial statements for contracting with lenders and managers and are more likely to be influenced by taxation and dividend policies. Using 141,649 and 6,208 firm-year observations of UK private and public firms, respectively, from 1990 to 2000, they find that private firms exhibit less timely loss recognition. Similarly, Peek, Cuijpers and Buijink (2010) investigate the impact of investors' protection on accounting conservatism. They argue that the information need of investors varies in line with firm type (i.e., private or public). Using 141,805 firm-year observations and 16,225 firm-year observations for private and public firms, respectively, from 1993 to 2000 for 13

countries, they find public firms' creditors to be positively associated with accounting conservatism.

3.6.2.3 Ownership and accounting conservatism

Accounting conservatism is a governance mechanism that obviates information asymmetry between a borrower and a lender (Watts, 2003). Lenders have a payoff asymmetry in that an increase in future earnings of a firm does not lead to an increase in the fixed return that debtholders stand to get from a firm, but a decrease in return jeopardises their interest in the firm. Hence, they often want to see a worst-case scenario (achieved through conservative accounting) to determine a firm's ability to payback borrowed funds. Based on this notion, Chen, Chen, Lobo and Wang (2010) investigate the relationship between the ownership of firms and accounting conservatism on the one side, and the relationship between ownership of lenders (banks) and accounting conservatism, on the other hand, in China. They argue that lenders face a low rate of default risk from state-owned enterprises (SOEs) because such risk is insured by the government of China. Hence, SOEs are hypothesised to use less accounting conservative practices. However, since there is no alleviation of default risk on the part of nonstate-owned enterprises, lenders will demand a more conservative accounting. Similarly, they argue that state-owned banks are less effective at and less concerned about default risk in China, hence, their borrowers are expected to be less conservative. Using 5,433 firm-year observations from 2001-2006, they find both SOEs as well as borrowers from state-owned banks to be associated with lower accounting conservatism.

Similarly, Cullinan, Wang, Wang and Zhang (2012) investigate the impact of the existence of large shareholders on accounting conservatism in China. Managers are predicted to serve the interest of large shareholders, who may attempt to expropriate, at the expense of the minority who ordinarily demand conservatism. Using 3,646 firm-year observations from 2007 to 2009, they find a negative relationship between the percentage of shares held by the largest shareholders and accounting conservatism.

The impact of family ownership on timely loss recognition stems from type II agency problem. Such agency problem, which result from the domination of the board by family members may lead to expropriation of the wealth of minority interest by these members in a similar way that managers expropriate wealth from shareholders in a type I agency problem. Based on this notion, Wang (2006) argues from two conflicting viewpoints on the effect of family ownership on accounting quality. The entrenchment effect holds that the presence of a family member on the board leads to expropriation of

the wealth of minority shareholders. On the other hand, the alignment effect argues that the existence of a family member on the board checks the opportunistic behaviour of non-family managers. Using 4,195 firm-year observations from 1994 to 2002, they find family-owned businesses to be associated with higher loss recognition, thus supporting the alignment effect.

Ding, Qu and Zhang (2011) examine the impact of family ownership on timely loss recognition in China. Using, 542 firm-year observations from 2003 to 2006, they find that family firms do not recognise losses in a timelier fashion relative to non-family firms. In the same vein, Chen, Chen and Cheng (2014), examine the relationship between non-CEO family ownership (i.e., where family members are not the CEO) on accounting conservatism in the US. Using 8,264 firm-years for 1,204 unique S&P 1500 firms from 1996 to 2005, they find a positive relationship between accounting conservatism and non-CEO family ownership.

3.6.2.4 Board gender and accounting conservatism

Francis, Hassan, Park and Wu (2015) investigate the impact of CEO gender on accounting conservatism based on the argument that females are more risk averse than men and would generally adopt a more conservative accounting policy and choice than men. Using 974 firm-year observations with 92 cases of male to female transitions from 1988 to 2007, they find that female CEO exhibit more conservative accounting practices. Investigating more specifically, the risk aversion of female CEO, they analysed the sensitivity of female CEOs to four types of risk - default risk, litigation risk, management turnover risk and systematic risk. They further find that female CEOs' conservatism is more significant when a firm's exposure to the aforementioned risks is high.

Furthermore, Krishnan and Parson (2008) examine the impact of board gender diversity on accounting conservatism. Using 776 firm-year observations of Fortune 500 companies from 1996-2000, they find that higher gender diversity is associated with higher accounting conservatism.

3.6.2.5 Managerial overconfidence and accounting conservatism

Overconfidence of managers often leads to optimistic estimate of earnings. Often, these forecast earnings are difficult to achieve and managers try to use some accounting manipulations to guard against missing these forecasts. One of the means by which they do this is to adopt less conservative accounting practices. In line with this thought, Ahmed and Duellman (2013) investigate the impact of managerial overconfidence on accounting conservatism. Using 14,641 firm-years of S&P 1500 firms from 1993-2009, they find that

managerial overconfidence is significantly and negatively associated with accounting conservatism.

3.6.2.6 Lender representation on board and accounting conservatism

Information asymmetry between the lender and the borrower necessitates the need for conservative accounting (Watts, 2003; Ball, Robin and Sadka, 2008). Any 'better' means of obviating this information asymmetry may lead to less reliance on conservative accounting. Given this view point, Erkens, Subramanian and Zhang (2014) examine the impact of 'affiliated banker on board' on accounting conservatism. They opine that the representation of a lender on the board of a borrower (tagged affiliated banker on board) remove the information asymmetry between the lender and the borrower that would have hitherto necessitated the demand for conservative accounting by the lender. Based on this, they hypothesised that affiliated banker on board is negatively related to accounting conservatism. Using 6,481 firm-year observations from 2000 to 2006, they find that firms with affiliated bankers on board have less conservative accounting than those without affiliated bankers on board.

3.6.2.7 Accounting conservatism and social performance

Organisations are embodiments of stakeholders with conflicting interests. Nonetheless, balancing these conflicting interests such that all stakeholders are satisfied is perceived as a higher corporate social performance (Clarkson, 1995). One way of ensuring such balance is to ensure the resources of a firm are not excessively transferred to a single stakeholder body (Clarkson, 1995). This can be achieved through conservative accounting, as timely recognition of losses and the deferment of the recognition of profits prevents excess distribution of profits to managers and shareholders (Watt, 2003). Based on this premise, Francis, Harrast, Mattingly and Olsen (2013) examine the relationship between corporate social performance and accounting conservatism. Using 1,465 firm-year observations from 1998 to 2002, they find that higher corporate social performance is related to higher accounting conservatism.

Similarly, in Taiwan, Cheng and Kung (2015) investigate the impact of mandatory corporate social responsibility on conservatism. They argue that socially responsible firms should equally display their social responsibility in their accounting practices. Using 4,367 firm-year observations from 2007 to 2009, they find that social performance of listed firms in Taiwan is positively related to accounting conservatism.

3.6.2.8 Internal control and accounting conservatism

Internal controls are mechanisms used by the management to ensure that financial reports are true and fair and that the organisation is working the way it purports to work. According to Goh and Li (2011), higher accounting conservatism is predicted to be an output of a strong internal control. Thus, they examine the influence of internal control quality on accounting conservatism. Using 7,547 firm-year observations from 2003 to 2005, they find that firms with strong internal controls have higher conservative accounting while firms with weak internal controls have lower conservative accounting.

3.6.2.9 Customer and supplier bargaining power and accounting conservatism

Customers and suppliers of a firm are usually concerned about their downside risk, which is the potential loss a customer or supplier may suffer in the event of a change in the present condition of the firm they demand from or supply to. For example, a supplier will want to know whether a contract of supplies to be made to a firm will not be truncated by a change in the firm's condition from the present. Accounting conservatism reduces this risk through timely recognition of losses, which shows the worst scenario of a firm at a point in time. Based on this viewpoint, Hui, Klasa and Yeung (2012) examine the relationship between a firm's customers and suppliers' bargaining power and accounting conservatism. Using COMPUSTAT manufacturing firms from 1995-2007, they find that a positive association exist between customers and suppliers' bargaining power and a firm's timely recognition of losses.

3.6.2.10 Managerial ownership, legal liability, and accounting conservatism

Conservatism is arguably an efficient contracting mechanism for reducing the agency problem arising from the separation of ownership between managers and shareholders (Type I agency problem) (Watt, 2003). The degree of ownership of a firm's share by its managers should therefore be negatively related to accounting conservativism since managerial ownership reduces the separation of ownership between managers and shareholders. Based on this assumption, Lafond and Roychowdhury (2008) find, using 14,786 firm-year observations from 1994 to 2004, that managerial ownership is negatively associated with accounting conservatism. However, Shuto and Takada (2010) observe that this result is subject to variation in line with the degree of managerial ownership (i.e., low, medium, and high), in a Japanese context. Using 27,448 firm-year observations from 1991 to 2005, they find that low and high managerial ownership are significantly and negatively related to accounting conservatism. However, at the medium

level of managerial ownership, however, a positive association exist with accounting conservatism.

Watt (2003) explains that potential litigations may prevent a firm from overstating its net assets as against understating it. However, when such potential litigation is insured, managers are less likely to be conservative. Based on this notion, Chung and Wynn (2008) investigate the impact of managerial legal liability coverage on accounting conservatism in Canada. Using 1,015 firm-year observations of listed firms on the Toronto Stock Exchange from 1998 to 2004, they find that managerial legal liability coverage is negatively associated with accounting conservatism.

3.6.2.11 Auditor tenure and accounting conservatism

Jenkins and Velury (2008) examine the impact of audit tenure on accounting conservatism. Using 86,914 firm-year observations from 1980 to 2004, they find the length of auditor tenure to be positively associated with accounting conservatism. Li (2010) investigate this further by distinguishing the association of auditor tenure with accounting conservatism between small and large firms. They argue that large firms are closely monitored by their auditors than small firms. Hence, this may account for a positive association between auditor tenure and accounting conservatism in large firms alone. Using 82,663 firm-year observations from 1980 to 2004, they find the positive association between auditor tenure and accounting conservatism to be only attributable to large firms. For small firms, they find a significantly negative association.

3.6.2.12 National culture and accounting conservatism

Kanagaretnam, Lim and Lobo (2014) argue that the recent financial crisis was caused by ‘culture and excessive risk-taking’ (p. 1116). Based on this argument, they investigate the effect of national culture on accounting conservatism in the banking industry in the US. They posit that societies characterised by individualism are associated with high risk-taking, self-orientation, autonomy, overconfidence, and a lack of concern for other stakeholders’ welfare. On the other hand, societies characterised by collectivism are more risk-averse. From a sample of 65 countries from 2000 to 2006, they find individualism to be negatively associated with conservatism while collectivism is positively associated with accounting conservatism. This finding corroborates an earlier study by Salter, Kang, Dotti and Doupnik (2013). Using a sample of 89,481 firm-year observations from 1989 to 2006 for 22 countries, they find that collectivism and femininity are positively associated with accounting conservatism.

3.6.2.13 Takeover protection and accounting conservatism

The protection of managers against takeover has the potential of entrenching managers in a firm such that they now pursue their goals at the expense of the firm's. From this view point, Zhao and Chen (2008) examine the impact of takeover protection on accounting conservatism. Using 6,498 firm-year observations from 1995 to 2002, they find that takeover protection is negatively associated with timely recognition of losses.

3.6.2.14 Cross-listing and accounting conservatism

Cross-listed firms face various regulations from different stock markets. Hence, they are expected to show higher accounting quality. Using this understanding, Huijgen and Lubberink (2005) investigate the accounting conservatism practices of UK cross-listed firms in the US stock market and those not cross listed. They concluded from their investigation that UK firms cross listed in the US are more conservative than firms not cross listed.

3.6.3 Earnings Persistence

Earnings persistence is the autocorrelation of earnings (Lipe, 1990), that is, the ability of the preceding year earnings to determine succeeding year earnings. Persistent earnings are deemed sustainable and more useful as input into discounted cash-flow equity valuation models (Lipe, 1990). According to Sloan (1996), persistence of earnings is more informative and value relevant. Hence, based on this notion, more persistent earnings are deemed to be of higher quality. Below is the earnings persistence model:

$$E_{t+1} = \alpha + \delta E_t + \varepsilon_t \qquad (3.1)$$

Where: E_{t+1} = next year's earnings; E_t = current year earnings; δ = persistence

Earning is further decomposed into accrual and cash flow component thus:

$$E_{t+1} = \alpha + \delta ACC_t + CF_t + \varepsilon_{t+1} \qquad (3.2)$$

Accrual components of earnings are less persistent (due to greater subjectivity), while cash flow components are more persistent (Sloan, 1996). However, investors don't distinguish between the two, they fixate on earnings instead (Sloan, 1996). This is called accrual anomaly. Based on this argument, Xie (2001) investigates the market pricing of abnormal or discretionary accrual despite its lower persistence and hence, lower quality. He finds that the market over estimates the persistence of abnormal accrual and consequently over prices it. Thomas and Zhang (2002) investigate the reasons for the

market's inability to capture the lesser persistence of accrual measure and suggest that the market inefficiency is due to inventory changes.

Dechow and Dichev (2002) extend Sloan's (1996) model. They argue that accrual involves discretion and estimation error by management; the higher the estimation error in accrual, the lower the quality of accrual and hence, earnings. They conclude that accrual quality is positively related to earnings persistence and accrual quality can be observed from its volatility as well as earnings volatility.

Fairfield, Whisenant and Yohn (2003) draws an alternative explanation for the lesser persistence of accrual component of earnings as compared to the cash component. They explain that the lesser persistence of accrual could be due to diminishing marginal returns to new investment opportunities, which leads to lower economic profits because of dwindling prices, accounting conservatism or managerial discretion.

Richardson, Sloan, Soliman and Tuna (2005) extend Sloan's model by decomposing accrual into short and long-term components of operating assets and liabilities and into financial and operating component. They find short-term components to be less persistent compared to the long-term component. Similarly, operating accruals are less persistent compared to financial.

3.6.3.1 Accrual anomaly

Soares and Stark (2009) investigate the existence of accrual anomaly i.e., the overpricing of the persistence of accrual and the under-pricing of the persistence of the cash component of earnings in the UK stock market. Using Sloan's (1990) model, they find accrual anomaly to exist, which is consistent with prior studies. Accrual anomaly is not confined to only stock markets, it also exists in bond markets (Bhojraj and Swaminathan, 2009).

Pincus, Rajgopal and Venkatachalam (2007) investigate whether accrual anomaly is a global phenomenon i.e., whether the observed anomaly can be linked to a country's accounting and institutional infrastructure. In their research into 20 countries, existence of accrual anomaly is generally documented. They find that common law countries particularly exhibit accrual anomaly than code law countries.

Dechow, Richardson and Sloan (2008) investigate the persistence of subcomponent of earnings and their implication for investor pricing. To do this, they decomposed cash component of earnings into three components: changes in cash balance, cash distributed to equity shareholders and cash distributed to debtholders. They find that higher persistence of cash component of earnings is due to the persistence of cash distributed to

equity holders. However, the persistence of other components of cash is not different from that of accrual. Thus, they conclude that investors correctly price distribution to equity and debtholders but misprice cash balance changes, similar to accrual.

Chen and Shane (2014) investigate the persistence of cash subcomponent of earnings. Change in cash balance, as in Dechow et al. (2008), was further decomposed into normal and abnormal components. They find that abnormal decrease in cash have higher persistence than abnormal increase, and every other component of earnings.

Artikis and Papanastasopoulos (2016) investigate the persistence of cash component of earnings in the UK. By decomposing into change in cash balance, distribution to equity and debtholders (as in Dechow et al. (2008)), they find that higher persistence of cash component of earnings is attributable to distribution to equity holders. Changes in cash balance and distribution to debtholders are of the same persistence level with the accrual component of earnings. Debt and equity issuances are well priced by investors, while the change in cash balance is mispriced.

3.6.3.2 Consequences of earnings persistence

Baber, Kang and Kumar (1998) investigate the implication of earnings persistence for executive compensation as an attempt to attenuate the horizon problem[38]. Based on efficient contracting and using a cross-sectional analysis of 713 US CEO pays in 1992 and 1993, they find that earnings persistence is positively related to executive pay, especially when executives are nearing retirement. Furthermore, Nwaeze, Yang and Yin (2006) investigate the implication of earnings persistence for executive compensation. Using cash flow persistence as a proxy for earnings persistence, they find that persistent earnings are used in determining executive compensation.

Higher quality earnings should not just be able to predict next year's earnings but the future stream of cash flows (Dechow et al., 2010). Therefore, some researchers have examined if current cash flow is a better determinant of future cash flow than current earnings, by investigating the best valuation model for firms. Penman and Sougiannis (1998) analyse the best valuation model from amongst accrual earnings technique, discounted cash flow techniques, and dividend discounting techniques. They find that accrual earnings technique has the least valuation error, thus, making earnings more value relevant than cash-flow. Dechow and Ge (2006) investigate the magnitude and the sign of accrual on earnings persistence. They find that persistence of earnings relative to cash

[38] Horizon problem refers to a situation where managers invest in short-term investments that are optimal investments for their own personal gains (for example, where compensations are linked to returns) but are suboptimal for the firm in the long-run (Anita, Pantzalis and Park, 2010).

flow is higher for high accrual firms and lower for low accrual firms, with the latter mainly driven by special items.

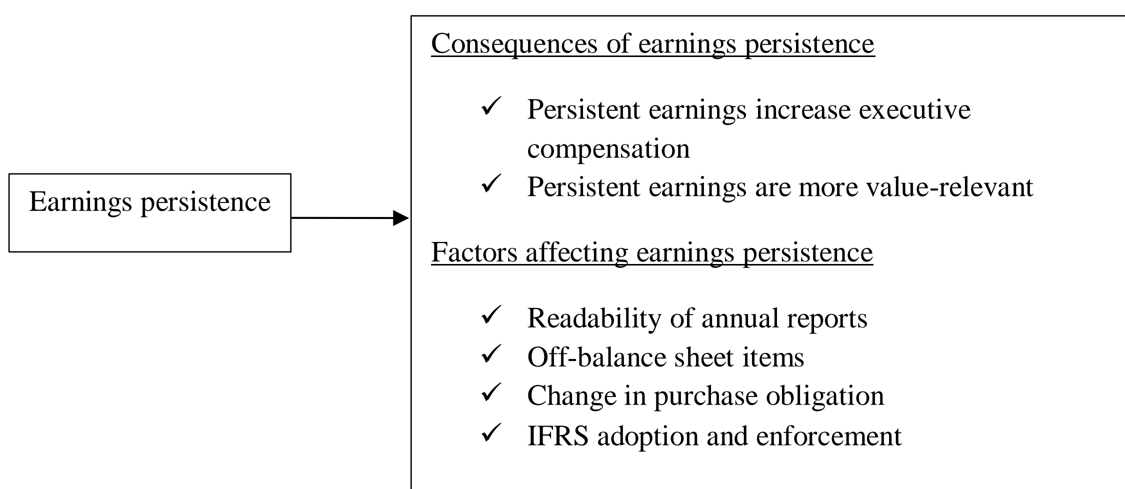
3.6.3.3 Factors affecting earnings persistence

Li (2008) investigates the readability of firms' annual report and its impact on earnings persistence. They find that firms whose annual reports are easier to read have more earnings persistence. Dichev and Tang (2009) examine the impact of earnings volatility in predicting earnings persistence. They find that earnings with high volatility have low persistence, while earnings with low volatility have high persistence. Chen, Folsom, Paek and Sami (2014) investigate the effect of accounting conservatism on earnings persistence in the US. They find that higher conservatism generates less persistent earnings, while lower conservatism generates higher persistence.

Ge (2007), in his investigation of the implication of off-balance sheet operating leases for earnings prediction, find that off-balance sheet operating leases lead to reduced future earnings. He concludes that investors do not correctly estimate the implications of off-balance sheet operating lease. Similarly, Lee (2010) investigates whether change in purchase obligation has an effect on firms' performance. He finds that change in purchase obligation is positively associated with future sales and earnings.

Figure 3.7 summarises the consequences of and factors affecting earnings persistence as discussed above. IFRS adoption and enforcement are discussed in section 3.7, since the two are the primary factors affecting earnings persistence that this study will be examining.

Figure 3.7 Consequences of and factors affecting earnings persistence



3.7 Review of Empirical Evidence and the Development of Hypotheses

3.7.1 IFRS Adoption and Earnings Management

Barth et al. (2008) investigate the effect of IAS adoption on earnings management in 21 countries. Based on 1,896 firm year observations from 1994 to 2003, they find that IAS adoption is associated with less earnings management in the 21 countries examined. Similarly, Chen, et al. (2010) investigate the impact of IFRS adoption on accounting quality in 15 European Union countries. Based on 21,707 firm-year observations from 2000 to 2007, they find that IFRS adoption leads to a reduction in earnings management in the 15 EU countries.

In Greece, Iatridis and Rouvolis (2010) examine the impact of IFRS adoption on earnings management. Based on a sample of 254 firms from 2004 to 2006, they find that IFRS adoption is associated with lower earnings management in Greece.

Across Europe, Gebhardt and Novotny-Farkas (2011) examine the effect of IFRS adoption on income smoothing in 90 European banks. They find that IFRS significantly reduces income smoothing among the sampled European banks. In the same vein, Zeghal, Chtourou and Fourati (2012) examine the effect of mandatory IFRS adoption on earnings quality in 15 EU countries. Based on a sample of 1,547 firms from 2001 to 2008, they find that earnings management was less in countries whose GAAP exhibit high divergence from IFRS.

Chua et al. (2012) investigate the impact of IFRS adoption on earnings management in Australia. Using 1,376 firm-year observations from 2004 to 2009, they find that income smoothing subsequent to IFRS adoption has reduced in Australia.

In China Zhou, Xiong and Ganguli (2009) examine the impact of IFRS adoption on earnings management. Based on 3,298 firm-year observations from 1994 to 2000, they find that IFRS adoption is associated with less earnings management in China. Similarly, based on a sample of 870 firms with 3240 firm-year observations, Liu, Yao, Hiu and Liu (2011) find that IFRs adoption is associated with reduced earnings management in China.

Wan Ismail, Kamarudin, Zijl and Dunstan (2013) examine the impact of IFRS adoption on earnings management in Malaysia. Based on 4010 firm-year observations from 2002 to 2009, they find that IFRS adoption is associated with lower earnings management in Malaysia.

Lourenco, Branco and Curto (2015) investigate the impact of partial and full adoption of IFRS on earnings management in Brazil. Based on a sample of 380 firms with a firm-year observation of 3040 firm-years from 2004 to 2011, they find that partial

adoption of IFRS (2008-2009) is not associated with a decrease in earnings management but full adoption (2010-2011) is significantly negatively related to earnings management.

On the contrary, many studies find a negative relationship between IFRS and earnings management. Tendeloo and Vanstraelen (2005) investigate the impact of voluntary IFRS adoption on earnings management in Germany. Based on 636 firm-year observations from 1991 to 2001, they find that voluntary IFRS adoption does not constrain earnings management in Germany. Similarly, Pannenin and Lin (2009) examine the effect of IFRS adoption on earnings quality in Germany. Based on 839 firm-year observations from 2000 to 2006, they find that earnings management increased following IFRS adoption in Germany. Christensen, Lee, Walker and Zeng (2015) investigate the impact of IFRS adoption on earnings management in Germany. Using a sample of 743 observations from 1998 to 2005, they find that earnings management (through earnings smoothing and targeting of small positive earnings) reduced after IFRS adoption for firms that voluntarily adopted IFRS, based on their level of incentives. However, earnings management of mandatory adopters of IFRS did not reduce following IFRS adoption. Thus, they conclude that incentives to improve accounting quality rather than IFRS adoption leads to improved accounting quality.

Jeanjean and Stolowy (2008) investigate the effect of mandatory IFRS adoption on earnings management in Australia, UK and France. Using 5,051 firm-year observations across the three countries, they find that the pervasiveness of earnings management did not reduce after IFRS adoption. In the same vein, Callao and Jarne (2010) investigate the impact of IFRS adoption on earnings management in 11 European countries. Using 5,632 firm-year observations from 2002 to 2005, they found that earnings management increased in the EU following IFRS adoption. In New Zealand, Kabir et al. (2010) examine the impact of IFRS adoption on earnings quality of New Zealand firms. Based on 723 firm-year observations from 2002 to 2009 they find that earnings management increased post-IFRS in New Zealand.

Houqe, Zijl, Dunstan and Karim (2012) examine the impact of IFRS adoption given existing level of investor protection on earnings management in 43 countries. Based on 104,348 firm-year observations from 2000 to 2007, they find that mere adoption of IFRS does not improve earnings quality. Similarly, increase in the degree of investor protection does not improve earnings quality. Only the combination of the increase in investors' protection with IFRS adoption improves earnings quality. Also, Ahmed et al. (2013) examine the effect of mandatory IFRS adoption on earnings management across 20 countries. Using 1,610 firm-year observations from 2002 to 2004, they find that IFRS

adoption increases earnings smoothing and aggressive reporting of accruals. Capkun et al. (2016) argue that 2005 amendments made to IFRS increases the standards' flexibility for opportunistic managerial behaviour, thereby reducing accounting quality. In other words, firms adopting IFRS post-2005 are expected to experience a reduced accounting quality. Using a sample of 3,853 firms from 29 countries, they conclude that IFRS post-2005 increases earnings management.

Cameran, et al. (2014) investigate the effect of IFRS adoption on earnings management among private (non-listed) Italian firms from 2005 to 2008. From a total of 948 firm-year observations, they concluded that earnings quality decreased subsequent to IFRS adoption among non-listed Italian firms. Doukakis (2014) examine the impact of mandatory IFRS adoption on both accrual earnings management and real earnings management in 22 European countries. Based on 15,206 firm-year observations from 2000 to 2010, they find that mandatory IFRS adoption has no significant impact on both real and accrual earnings management. Moreover, firms that had relatively strong management incentives to engage in earnings management had higher earnings management. Bryce et al. (2015) investigate the effect of IFRS adoption on earnings management in Australia. They observe 1,200 firm-years of 200 companies from 2003 to 2008. They found that earnings management did not decrease as a result of IFRS adoption in Australia.

Burnett, Gordon, Jorgensen and Linthicum (2015) investigate the impact of IFRS adoption on earnings management in Canada. From 488 firm-year observations, they find no significant improvement in earnings quality in Canada. Similarly, Liu and Sun (2015) examine the effect of IFRS adoption on the earnings quality of Canadian firms. Based on a sample of 274 firms with 1,644 firm-year observations, they find no significant difference in the earnings management practices of Canadian firms before and after IFRS adoption.

In Egypt, Elbannan (2010) investigate the impact of IAS-based accounting standards on earnings quality. They divided their adoption period into initial adoption period (1997-1998) and revision period (2006-2007). Based on a sample of 153 and 141 respectively for the study period, they find no support that IFRS reduces earnings management in Egypt. Similarly, Wang and Campbell (2012) investigate the impact of IFRS adoption on earnings management in China. Based on a sample of 1329 firms with 11947 firm year observations from 2000 to 2009, they find that IFRS does not have any effect on earnings management in China.

In the case of Nigeria, it is expected that higher disclosure requirements by IFRS as compared to the Nigerian SASs will reduce earnings management practices of Nigerian listed firms. Hence, the first hypothesis is stated as follows:

H₁: *IFRS adoption significantly reduces earnings management behaviour of Nigerian listed firms.*

Table 3.1 Summary of Literature on the Effects of IFRS Adoption on Earnings Management

Author (year)	Context	Period	Effect of IFRS on EM
IFRS reduces earnings management			
Barth et al. (2008)	12 countries	1994 – 2003	IFRS adoption reduces EM.
Chen et al. (2010)	15 EU countries	2000 – 2007	IFRS adoption reduces EM.
Gebhardt and Novotny-Farkas (2011)	90 European Banks	2000 – 2007	IFRS adoption reduces EM.
Zeghal et al. (2012)	15 EU countries	2001 – 2008	IFRS adoption reduces EM for countries with divergence between GAAP and IFRS.
Zhou et al (2009)	China	1994 – 2000	IFRS adoption reduces EM.
Iatridis and Rouvolis (2010)	Greece	2004 – 2006	IFRS adoption reduces EM.
Liu et al (2011)	China		IFRS adoption reduces EM.
Chua et al. (2012)	Australia	2004 – 2009	IFRS adoption reduces EM.
Wan Ismail et al (2013)	Malaysia	2002 – 2009	IFRS adoption reduces EM.
Lourenco et al (2015)	Brazil	2004 – 2011	IFRS adoption reduces EM.
IFRS increases earnings management			
Pannenin and Lin (2009)	Germany	2000 – 2006	IFRS adoption increases EM.
Jeanjean and Stolowy (2008)	Australia, UK and France	2002 – 2006	IFRS adoption increases EM in France and has no effect in both the UK and Australia.
Kabir et al (2010)	New Zealand	2002 – 2009	IFRS adoption increases EM.

Callao and Jarne (2010)	11 EU countries	2002 – 2005	IFRS adoption increases EM.
Ahmed et al. (2013)	20 countries	2002 – 2004	IFRS adoption increases EM.
Capkun et al. (2016)	29 countries		IFRS adoption increases EM.
Cameran et al. (2014)	Italy	2005 – 2008	IFRS adoption increases EM for private firms.
Christensen et al. (2015)	Germany	1998 – 2005	IFRS adoption increases EM for mandatory adopters but reduces EM for voluntary adopters.
IFRS does not affect earnings management			
Tendeloo and Vanstraelen (2005)	Germany	1991 – 2001	IFRS adoption does not affect EM.
Elbannan (2010)	Egypt	1997 – 1998 2006 – 2007	IFRS adoption has no effect on EM.
Houqe et al. (2012)	43 countries	2000 – 2007	IFRS adoption alone has no effect on EM. But IFRS adoption with increased investor protection reduces EM.
Wang and Campbell (2012)	China	200 – 2009	IFRS adoption has no effect on EM.
Doukakis (2014)	22 countries	2000 – 2010	IFRS adoption has no effect EM.
Bryce et al. (2015)	Australia	2003 – 2008	IFRS adoption has no effect on EM.
Burnett et al. (2015)	Canada	2007 – 2012	IFRS adoption has no effect on EM.
Liu and Sun (2015)	Canada	2008 – 2014	IFRS adoption has no effect on EM.

3.7.2 Enforcement and Earnings Management

Regarding the effect of enforcement on earnings management, Marra, Mazzola and Prencipe (2011) examine the effectiveness of corporate governance prior to and after IFRS adoption from 2003 to 2006. Based on 888 firm-year observations, they find that the existence of audit committee and board independence are negatively and significantly associated with earnings management in the post-IFRS adoption period. Thus, concluding that firm level enforcement mechanisms play an important role in ensuring accounting quality. A similar conclusion was reached by Zeghal, Chtourou and Sellami (2011), in France, from a sample of 353 French listed firms from 2003 to 2006.

Ernstberger et al. (2012) examine the effect of enforcement of accounting reforms in Germany on earnings management in the IFRS regime. Using 1,464 firm-year observations from 2003 to 2006, they found that earnings management decreased with the accounting reforms, while IFRS adoption had no significant influence on earnings management. Christensen et al. (2013) also argue that enforcement rather than IFRS leads to higher accounting quality when IFRS adoption is mandatory.

However, Cai et al. (2014) has further analysed the above studies' findings, in their examination of the impact of IFRS adoption on earnings management considering the influence of pre-adoption divergence of the sampled countries' national GAAP from IFRS. They observe 31 countries with a total of 128,292 firm-year observations from 2000 to 2009 and find that high-divergent countries with higher level of legal enforcement have a reduced earnings management following IFRS adoption; low-divergent countries with higher enforcement do not have a significantly lower earnings management following IFRS adoption; and low-divergent countries with lower enforcement do not benefit from IFRS adoption in the least.

Bocking, Gros and Worrret (2015) examine the effect of German two-tier enforcement systems in constraining earnings management. Using a sample of 3,539 firm-year observations from 2005 to 2011, they find that enforcement is negatively related to accrual earnings management when errors in financial statements of companies are first released but weakens in later years.

Alhadab, Clacher and Keasey (2016) reached a conclusion that regulatory environment affects the extent of earnings management. This stems from their examination of IPO firms on the highly regulated Main market as compared to the lightly regulated Alternative Investment Market (AIM) on the London Stock Exchange. Using 571 IPO firms from 1998-2008, they find that IPO firms on the AIM exhibit higher accrual based and sale-based earnings management but a lower discretionary expense-based earnings management than IPO firms on the Main market.

In Nigeria, it is expected that the monitoring and enforcement policies undertaken by the FRCN on the financial reporting practices of Nigerian listed firms will reduce their earnings management behaviour. The second hypothesis is stated as follows:

> ***H_2:** The monitoring and enforcement approach by the FRCN significantly reduces earnings management behaviour of Nigerian listed firms.*

Table 3.2 Summary of Literature on the Effects of Enforcement on Earnings Management

Author (year)	Context	Type of Enforcement	Period	Effect of Enforcement on EM
Enforcement reduces earnings management				
Cai et al. (2014)	31 countries	Legal enforcement	2000 – 2009	High divergence with strong enforcement reduces earnings management. Low divergence with strong enforcement does not reduce earnings management.
Marra et al. (2011)	Italy	Corporate governance	2003 – 2006	Audit committee and board independence reduces earnings management.
Zeghal et al. (2011)	France	Corporate governance	2003 – 2006	Board independence, audit committee independence, block shareholders, external audit and the listing on foreign financial stock exchanges reduce earnings management.
Ernstberger et al. (2012)	Germany	Establishment of Enforcement institutions	2003 – 2006	Enforcement of IFRS reduces earnings management.
Bocking et al. (2015)	Germany	German two-tier enforcement system.	2005 – 2011	Enforcement reduces earnings management.
Alhadab et al. (2016)	UK	Stock market regulation.	1998 – 2008	IPO firms on the AIM exhibit higher earnings management than IPO firms on the Main market.

3.7.3 IFRS Adoption and Accounting Conservatism

Hung and Subramanyam (2007) investigate the impact of IFRS adoption on conditional conservatism in Germany. Based on a sample of 80 firms with 84 firm-year observations from 1998 to 2002, they find that IFRS leads to increased conditional conservatism in

Germany. Chua, Cheong and Gould (2012) examine the impact of mandatory IFRS adoption on timely loss recognition in Australia. Based on a sample of 172 firms with 1,376 firm-year observations from 2001 to 2009, they concluded that IFRS adoption leads to more timely loss recognition in Australia.

Barth, Landsman and Lang (2008) examine the impact of IAS adoption on timely loss recognition in 21 countries. Based on a sample of 327 with firm year observations of 1,896 from 1993 to 2003, they find that IAS adoption leads to more timely recognition of losses. Chan, Hsu and Lee (2015) investigate the effect of mandatory adoption of IFRS on timely loss recognition in 14 European countries. Based on 23,225 firm-year observations from 2002 to 2007, they find that mandatory IFRS adoption leads to more timely loss recognition for firms with higher cost of debt, less dependence on private debt and bank financing.

Elbannan (2010) examine the impact of IFRS adoption on timely loss recognition in Egypt. Based on a sample of 294 firms for the period 1997 to 2007, they find that Egyptian firms recognised fewer losses in the initial post-IFRS adoption period of IAS. However, a significantly positive association between timely loss recognition and IAS adoption was found in the revision period (2006-2007).

On the contrary, Paananen and Lin (2009) examine the effect of IFRS adoption on timely loss recognition in Germany. Based on 839 firm-year observations from 2000 to 2006, they find that German companies engaged in less timely loss recognition subsequent to IFRS adoption. Lai, Lu and Shan (2013) examine the impact of mandatory IFRS adoption on conditional conservatism in Australia. Based on 16,826 firm year observations from 2002 to 2009, they find that accounting conservatism reduced following mandatory IFRS adoption. Elshandidy and Hassanein (2014) investigate the impact of IFRS on accounting conservatism in the UK. Based on a sample of 72 firms with 432 firm-year observations from 2002 to 2007, they find that mandatory IFRS adoption leads to a reduction in accounting conservatism. Cameran, Campa and Pettinicchio (2014) examine the impact of IFRS adoption of timely loss recognition by non-listed Italian companies. Based on 948 firm-year observations from 2005 to 2008, they find that IFRS adoption leads to a decrease in timely loss recognition.

Chen, Tang, Jiang and Lin (2010) examine the impact of IFRS adoption in 15 European Union countries. Based on 21,707 firm-year observations from 2000 to 2007, they find that IFRS is associated with a less timely loss recognition. Piot, Dumontier and Janin (2010) examine the impact of IFRS adoption on conditional conservatism in 22 European Union countries. Based on a sample of 5,464 firms from 2001 to 2008, they

find that IFRS adoption has led to decline in conditional conservatism. Gebhardt and Novotny-Farkas (2011) examine the impact of IFRS adoption on timely loss recognition among European banks in 15 European countries. Based on a sample of 90 European banks from 2000 to 2007, they find that IFRS adoption led to decrease in loan loss provision among the sampled banks. They attributed this decrease to the incurred loss approach that is adopted in recognising losses under IFRS. Andre et al. (2015) examine the impact of mandatory IFRS adoption on conditional conservatism in 16 European countries. Based on 13,711 firm-year observations from 2000 to 2010, they find a decline in conditional conservatism subsequent to IFRS adoption.

In China, Zhou, Xiong and Ganguli (2009) examine the impact of IFRS adoption on timely loss recognition. Based on a firm-year observation of 3,298 from 1994 to 2000, they find that IFRS adoption is not associated with more timely loss recognition in China.

In Russia, Kim (2016), based on 872 firm-year observations from 2009 to 2012, find that IFRS adoption increases timely loss recognition for firms facing coercive, normative and mimetic isomorphic pressure but not for firms facing only coercive isomorphic pressure.

Based on the public accountability model of accounting regulation, which takes cognizance of all relevant stakeholders (including lenders who are more interested in timely loss recognition), it is contended that IFRS adoption will improve timely loss recognition. Thus, the third hypothesis is stated as follows:

H_3: *IFRS adoption significantly increases timely loss recognition by Nigerian listed firms.*

Table 3.3 Summary of Literature on the Effects of IFRS on Timely Loss Recognition

Author (year)	**Context**	**Period**	**Effect of IFRS on Timely Loss Recognition**
IFRS increases timely loss recognition			
Barth et al. (2008)	21 countries	1993 – 2003	IFRS increases timely loss recognition.
Chan et al. (2015)	14 EU countries	2002 – 2007	IFRS increases timely loss recognition for firms with higher debt and reduces timely loss recognition for firms with lower debt.

Hung and Subramanyam (2007)	Germany	1998 – 2002	IFRS increases timely loss recognition.
Elbannan (2010)	Egypt	1997 – 2007	Timely loss recognition increases post -IFRS.
Chua et al. (2012)	Australia	2001 – 2009	IFRS increases timely loss recognition.
IFRS reduces timely loss recognition			
Chen et al. (2010)	15 EU countries	2000 – 2007	IFRS reduces timely loss recognition.
Piot et al. (2010)	22 EU countries	2001 – 2008	IFRS reduces timely loss recognition.
Gebhardt and Novotny-Farkas (2011)	15 European Banks	2000 – 2007	IFRS reduces timely loss recognition.
Andre et al (2015)	16 EU countries	2000 – 2010	IFRS reduces timely loss recognition.
Paananen and Lin (2009)	Germany	2000 – 2006	Timely loss recognition reduces post –IFRS.
Lai et al. (2013)	Australia	2002 – 2009	Timely loss recognition reduces post –IFRS.
Elshandidy and Hassanein (2014)	UK	2002 – 2007	IFRS reduces timely loss recognition.
Cameran et al. (2014)	Italy	2005 – 2008	IFRS reduces timely loss recognition.
IFRS does not affect timely loss recognition			
Zhou et al (2009)	China	1994 – 2000	IFRS has no effect on timely loss recognition.

3.7.4 Enforcement and Accounting Conservatism

Regarding the effect of enforcement on timely loss recognition, Jayaraman (2012) find a positive association between timely loss recognition and enforcement of internal trading (IT) law for only IFRS adopters that enforced the IT law based on 10,164 firm-year observations of 27 countries. Similarly, using neo-institutional theory in the context of Russia, Kim (2016) finds that firms facing only coercive isomorphic pressure (compelled to adopt some rules) exhibit lower timely loss recognition. However, firms facing a combination of coercive, normative and mimetic isomorphic pressures (i.e. mandatorily adopting IFRS and complying with other enforcement rules) exhibit a higher timely loss recognition behaviour. Based on these findings, we expect that the creation of the FRCN and its monitoring and enforcement policies on financial reporting practices will have a

positive effect on timely loss recognition by Nigerian listed firms. The fourth hypothesis is thus stated as follows:

H$_4$: *The monitoring and enforcement approach by FRCN significantly increases timely loss recognition by Nigerian listed firms*

3.7.5 IFRS Adoption and Earnings Persistence

Research into the effect of IFRS on earnings persistence, unlike earnings management, has not received substantial academic interests. However, few empirical evidence on the effect of IFRS on earnings persistence still abound. These studies are examined below.

Chalmers, Clinch and Godfrey (2011) examine the impact of IFRS adoption of earnings persistence in Australia. Using 20,025 firm-year observations between 1990 and 2008, they find that IFRS results in higher earnings persistence in Australia. Sun, Cahan and Emmanuel (2011) examine the effect of IFRS adoption on earnings persistence among foreign firms cross listed in the US. Based on 3,396 firm-year observations from 2000 to 2008, they find that IFRS adoption is associated with higher earnings persistence in the sampled 23 countries. Liu and Sun (2015) investigate the impact of mandatory IFRS adoption on earnings persistence in Canada. Based on a sample of 274 firms with 1,644 firm-year observations from 2009 to 2014, they find IFRS adoption to be positively related to earnings persistence.

In contrast, Doukakis (2010) examines the impact of IFRS adoption on earnings persistence in Greece. Based on 956 samples from 2002 to 2007, he finds that IFRS does not improve the persistence of earnings. Kabir, Laswad and Islam (2010) investigate the power of current year earnings in predicting next one-year cash flow subsequent to IFRS adoption in New Zealand. Based on a sample of 118 firms with 723 firm-year observations from 2002 to 2009, they conclude that IFRS does not improve the predictive power of earnings on cash flow in New Zealand.

Atwood, Drake, Myers and Myers (2011) compare the persistence of earnings under IFRS, US GAAP and non-US domestic GAAP (DAS). Based on 58,832 firm-year observations of 33 countries from 2002 to 2008, they find no difference in the persistence of earnings reported under IFRS and US GAAP but IFRS losses are less persistent than US GAAP losses. Similarly, there is no difference in the persistence of earnings under IFRS and DAS.

Lai, Li, Shan and Taylor (2013) examine the impact of mandatory IFRS adoption on earnings persistence in Australia. Based on 7,509 firm-year observations from 1998 to 2008, they find that IFRS does not affect earnings persistence significantly.

In the case of Nigeria, this study predicts that IFRS will increase the persistence of earnings of Nigerian listed firms based on the public accountability model of accounting regulation, which takes cognizance of all relevant stakeholders. Thus, the fifth hypothesis is stated as follows:

H₅*: *IFRS adoption increases the persistence of earnings of Nigerian listed firms.

Table 3.4 Summary of Literature on the Effects of IFRS on Earnings Persistence

Author (year)	Context	Period	Effect of IFRS on Earnings Persistence
IFRS increases earnings persistence			
Chalmers et al. (2011)	Australia	1990 – 2008	IFRS increases earnings persistence.
Sun et al. (2011)	US	2000 – 2008	IFRS increases earnings persistence.
Liu and Sun (2015)	Canada	2009 – 2014	IFRS increases earnings persistence.
IFRS does not affect earnings persistence			
Doukakis (2010)	Greece	2002 – 2007	IFRS has no effect on earnings persistence.
Kabir et al. (2010)	New Zealand	2002 – 2009	IFRS has no effect on earnings persistence.
Atwood et al. (2011)	33 countries	2002 – 2008	IFRS & US GAAP have no effect on earnings persistence bus US GAAP losses are more persistent than IFRS losses.
Lai et al. (2013)	Australia	1998 – 2008	IFRS has no effect on earnings persistence.

3.8 Research Method

3.8.1 Research Design

The research design employed in this study is a longitudinal research design. According to Bryman (2012), longitudinal research design involves a study of the same sample of objects over a period of time. Longitudinal research design can be a panel design or a cohort design. In a panel design, a randomly selected number of subjects are studied at different points in time. A cohort design, on the other hand, involves the study of all or a sample of subjects who share a certain characteristic at different points in time. This study adopts a cohort longitudinal design, as the population of study are firms listed on the

Nigerian Stock Exchange (NSE). Hence, they all share a similar characteristic by being listed on the NSE and thus, are subject to similar rules and regulations.

3.8.2 Data collection and sampling

The study uses secondary data in testing the hypotheses developed. The data were obtained from an unstructured archive and hand-collected. According to Bloomfield, Nelson and Solte (2016), an unstructured archive is a collection of data (e.g., in documents or databases) in a way not readily suitable for the researcher's intended purpose. The sorting and extraction of the data from the unstructured archive is called hand collection. Data for this study were extracted from the annual reports and financial statements of the Nigerian listed companies. Many of the reports were downloaded from africanmarkets.com[39]. A few financial statements were obtained from the Nigerian stock exchange where they were not available on the African markets' website.

Sampling frame is a representation of the population from which the samples are selected (Black, 2010). A frame can be a list, a directory or a map that captures the elements of the population. The sampling frame for this study is the list of listed firms printed from the NSE website. The list as at 2016 contains 179 firms. The sampling procedure adopted in selecting the sample firms is depicted below:

Table 3.5 Sampling

	Number of firms
Total number of firms listed as at 2016 (population)	179
Less financial services firms	(55)
Total non-financial services firms	124
Number of firms without full financial statements for 2009-2011	(41)[40]
Final sample	83

Financial services firms are excluded from the sample because they are subject to different rules and their accounting quality measurement is different from other industries' (Gebhardt and Novotny-Farkas, 2012; Gombola, Ho and Huang, 2016). Similarly, firms that do not have financial statement for the pre-IFRS adoption and pre-enforcement periods (2009 to 2011) are excluded, as the study can only make inference from firms that have data for the two periods.

[39] 'African markets' is a website that hosts financial statements of African companies and their market data.
[40] Most of these firms without financial reports were not listed for the periods preceding IFRS adoption and the FRCN's establishment (i.e., 2009 – 2011). Some other firms were delisted before 2012.

Table 3.6: Distribution of Sampled Firms by Industry

Industry	Sample Size	Percentage
Agriculture	4	4.82
Conglomerates	4	4.82
Construction/Real Estate	5	6.02
Consumer Goods	20	24.10
Healthcare	7	8.43
ICT	4	4.82
Industrial Goods	12	14.46
Natural Resources	4	4.82
Oil and Gas	8	9.64
Services	15	18.07
Total	83	100

3.8.3 Earnings Management Models

There are many earnings management proxies used in the literature and there is no best way of measuring it (Dechow et al., 2010). Nonetheless, the majority of IFRS-related studies have used the popular discretionary accrual model by Dechow, Sloan and Sweeney (1995), which is a modification of Jones (1991) model. However, the model has a number of limitations. First, management of earnings through depreciation, as in the Jones model (and its variants), is unlikely to occur in the short-term (Beneish, 1998), since changing accounting policies with respect to depreciation in the short run to manage earnings can be easily detected. Second, discretionary accrual models are affected by country-specific, industry-specific and firm-specific characteristics (Peek, Meuwissen, Moers & Vanstraelen, 2013), which reduce their reliability. Hence, based on these criticisms, the study also uses abnormal working capital accrual (AWCA) of DeFond and Park (2001) as an alternative measure of earnings management. As suggested by Bar-Yosef and Prencipe (2013), the AWCA model provides a more reliable estimate for fewer observations than the discretionary accrual models. Both variants of earnings management models are discussed below:

3.8.3.1 Discretionary accrual based on modified Jones model

The first earnings management proxy of this study is the modified Jones model of Dechow et al. (1995). The discretionary accrual is the difference between total accrual and the non-discretionary accrual. The researcher took the following steps in estimating the discretionary accrual.

First, the researcher estimates the modified Jones model as in equation 3.3:

$$\frac{TACC_{it}}{TA_{it-1}} = \alpha_j \left[\frac{1}{TA_{it-1}}\right] + \delta_{1j} \left(\frac{\Delta SALES_{it}}{TA_{it-1}} - \frac{\Delta AR_{it}}{TA_{it-1}}\right) + \delta_{2j} \left[\frac{PPE_{it}}{TA_{it-1}}\right] + \varepsilon_{it} \quad (3.3)$$

Where:

$TACC_{it}$ = difference between net income before extraordinary items and cash flow from operations for firm i in year t

TA_{it-1} = total assets for firm i in year t-1

$\Delta SALES_{it}$ = change in sales for firm i in year t, derived by $Sales_t - Sales_{t-1}$

ΔAR_{it} = change in account receivable for firm i in year t, derived by $AR_t - AR_{t-1}$

PPE_{it} = property plant and equipment for firm i in year t

Second, the researcher finds the non-discretionary accrual (NDA) by estimating the following regression equation:

$$NDA_{it} = \alpha_j \left[\frac{1}{TA_{it-1}}\right] + \delta_{1j} \left(\frac{\Delta SALES_{it}}{TA_{it-1}} - \frac{\Delta AR_{it}}{TA_{it-1}}\right) + \delta_{2j} \left[\frac{PPE_{it}}{TA_{it-1}}\right] \quad (3.4)$$

Third, the discretionary accrual is computed by subtracting NDA from TACC, thus:

$$DA_{it} = TACC_{it} - NDA_{it} \quad (3.5)$$

Fourth, the discretionary accrual is then regressed on IFRS adoption, enforcement through the establishment of FRCN and other control variables in the full model below:

$$|DA|_{it} = \alpha_i + \delta_1 IFRS_{it} + \delta_2 ENF_{it} + \delta_3 SIZE_{it} + \delta_4 LEV_{it} + \delta_5 CFO_{it} + \delta_6 AUQ_{it} + \delta_7 ROA_{it} + \delta_8 EISSUE_{it} + \delta_9 DISSUE_{it} + \varepsilon_{it} \quad (3.6)$$

3.8.3.2 Abnormal working capital accrual model (AWCA)

The abnormal working capital accrual is estimated with equation 5 below:

$$AWCA_t = WC_t - \left[\left(\frac{WC_{t-1}}{T_{t-1}}\right) \times T_t\right] \quad (3.7)$$

Where:

$AWCA_t$ = abnormal working capital accrual for period t

WC_t = non-cash working capital for year t (i.e. current assets –cash-short-term investments) – (current liabilities-short-term debt)

T_t = turnover for (sales) year t

T_{t-1} = turnover for (sales) year t-1

WC_{t-1} = non-cash working capital for year t-1

As in the modified Jones model, the AWCA is regressed on IFRS adoption, enforcement by the FRCN and other control variables as defined in the modified Jones model. Thus, the full model is:

$$AWCA_{it} = \alpha_i + \delta_1 IFRS_{it} + \delta_2 ENF_{it} + \delta_3 SIZE_{it} + \delta_4 LEV_{it} + \delta_5 CFO_{it} + \delta_6 AUQ_{it} + \delta_7 ROA_{it} + \delta_8 EISSUE_{it} + \delta_9 DISSUE_{it} + \varepsilon_{it} \quad (3.8)$$

3.8.4 Timely Loss Recognition (Conditional Conservatism)

Another earnings characteristic that has been widely used for examining earnings quality is timely loss recognition (Dechow et al., 2010). Consistent with previous studies (Lang et al., 2006; Barth et al., 2008; Christensen et al., 2015; Leung and Clinch, 2014), timely loss recognition is estimated using the model below:

$$LL_{it} = \alpha + \delta_1 IFRS_{it} + \delta_2 ENF_{it} + \delta_3 SIZE_{it} + \delta_4 LEV_{it} + \delta_5 CFO_{it} + \delta_6 AUQ_{it} + \delta_7 ROA_{it} + \delta_8 EISSUE_{it} + \delta_9 DISSUE_{it} + \delta_{10} Industry_{it} + \varepsilon_{it}$$

(3.9)

Where:

LL_{it} = large losses; a binary variable measured as 1 where net income scaled by total asset is less than -0.20 and 0 otherwise

3.8.5 Earnings Persistence

The persistence of earnings is another proxy for measuring earnings quality (Francis, LaFond, Olsson and Schipper, 2004). Persistence of earnings implies the ability of current year's earning to predict one-year future earnings (Schipper and Vincent, 2003). Earnings persistence is an important earning characteristic for equity valuation models (Dechow et al., 2010). The earnings persistence model is as follows:

$$EPS_{it+1} = \alpha + \delta_1 IFRS_{it} + \delta_2 EPS_{it} + \delta_3 IFRS \times EPS_{it} + \varepsilon_{it} \quad (3.10)$$

Where:

EPS_{it} = earnings per share for firm i in year t

$IFRS_{it}$ = binary variable; 1 for IFRS adoption and 0 for non-IFRS adoption for firm i at period t

The earnings persistence model is an autoregressive model which implies a dynamic panel model, as one of the independent variables is the lag of the dependent variable (Cameron and Trivedi, 2009).

3.8.6 Independent and Control Variables

The variables of interest are IFRS and the ENF variable. A negative and significant relationship is expected between the independent variables and earnings management.

However, for the persistence of earnings and timely loss recognition model, a positive relationship is expected.

Control variables used in the previous literature include cash flow from operations (CFO), return on assets (ROA), leverage (LEV), size of the firm (SIZE), audit quality (AUD), new issue of equity (EISSUE), and new issue of debt (DISSUE).

Table 3.7 summarises the measurements of all the dependent, independent and control variables. The literature from where they have been found is also provided.

Table 3.7 Summary and Definition of Variables for all Models

Variables	***Measurements***	***Source***
Dependent Variables (Accounting Quality)		
$\lvert DA \rvert_{it}$	*See equation 3.5*	Dechow et al. (1995); Tendeloo and Vanstraelen (2005); Callao and Jarne (2010); Wan Ismail et al. (2013); Bryce et al. (2015).
$AWCA_t$	*See equation 3.7*	DeFond and Park (2001); Marra et al., (2011); Ernstberger et al., (2012); Bar-Yosef and Prencipe (2013).
LL_{it}	*A binary variable measured as 1 where net income scaled by total asset is less than -0.20 and 0 otherwise.*	Lang et al (2006); Barth et al., (2008); Zeghal et al. (2012); Christensen et al., (2015); Leung and Clinch, 2014).
EPS_{it+1}	Earnings per share for firm i in year t+1	Sloan (1996); Schipper and Vincent, (2003); Francis, et al., (2004); Doukakis (2010); Chalmers et al. (2011); Sun et al. (2011); Atwood et al., (2011).
Independent Variables		
$IFRS_{it}$	*Binary variable; 1 for periods after IFRS adoption (2012-2014) and 0 for periods before IFRS adoption (2009-2011) for firm i*	Barth et al. (2008); Chen et al. (2010); Iatridis and Rouvolis (2010); Gebhardt and Novotny-Farkas (2011); Zeghal et al. (2012); Chua et al. (2012); Zhou et al (2009); Liu et al (2011); Pannenin and Lin (2009); Christensen et al.

		(2015); Jeanjean and Stolowy (2008); Capkun et al. (2016); Burnett et al. (2015); Liu and Sun (2015).
ENF_{it}	*Binary variable; 1 for periods following enforcement (2011 to 2014) and 0 for period before enforcement (2009-2010) for firm i*	Jayaraman (2012); Ernstberger et al., (2012); Christensen et al. (2013); Bocking et al. (2015).
	Control Variables	
$SIZE_{it}$	*Company size measured as the log of total assets of firm i at period t*	Barth et al. (2008); Chen et al. (2010); Zhou et al (2009); Liu et al (2011); Zeghal et al. (2012); Chua et al. (2012); Christensen et al. (2015); Burnett et al. (2015); Liu and Sun (2015); Bryce et al. (2015); Capkun et al. (2016).
LEV_{it}	*Leverage; measured as total debt divided by total assets of firm i at period t*	
CFO_{it}	*cash flow from operation of firm i at period t*	
AUQ_{it}	*Audit quality measured as 1 for big 4 audit firms and 0 for non-big 4 audit firms for firm i at period t*	
ROA_{it}	*Profitability; measured as a ratio of return to assets of firm i at period t*	
$EISSUE_{it}$	*New equity issue by firm i at period t*	Lang et al. (2006); Barth et al. (2008); Zeghal et al. (2012) Christensen et al. (2015).
$DISSUE_{it}$	*New debt issue by firm i at period t*	

3.9 Data Analysis

3.9.1 Descriptive statistics

Table 3.8 presents the descriptive statistics for all the variables before and after IFRS adoption (panel A). Statistical significance of the differences in means of the variables is also tested using t-test (parametric) and Wilcoxon rank-sum test (nonparametric).

The mean of AWCA is larger while the mean for DA is smaller in the post-IFRS adoption period, suggesting that the switch to IFRS may have given companies an opportunity to substitute a short-term earnings management strategy (AWCA) for a long-term strategy (DA). However, the change in the AWCA and the DA are not significant.

Average timely loss recognition (LL) increases in the post-IFRS adoption period which agrees with the increase in new debt issue. This confirms the assertion of Watt (2003) that timely loss recognition is a useful accounting information for debtholders. Both the t-test and Wilcoxon test indicate no significant difference in the LL following IFRS adoption.

As for earnings per share (EPS), the minimum figure shows the amount of losses to be much higher in the post-IFRS period, suggesting a recognition of some expenses that would ordinarily not be recognized under the Nigerian SASs (e.g., impairments). The mean EPS on the other hand is slightly lower in the post-IFRS period. Again, t-test and Wilcoxon test indicate no significant difference in the earnings per share.

The mean of company size significantly increases following IFRS adoption. This corresponds to the significant increase in the average total assets in the post-IFRS period. Average cashflow from operations increases in the post-IFRS adoption period possibly due to the increased total assets, which generate more cash flow from operations. The mean return on assets (ROA) prior to IFRS adoption is significantly higher than the mean ROA in the post-IFRS adoption period. This is likely a result of the significant increase in the average total assets in the post-IFRS period. Average leverage is higher in the post-IFRS period, justifying the significant increase in new debt issue (DISSUE) following IFRS adoption. The significant reduction in the new equity issue is a substitute for the increase in debt capital. There is a slight reduction in the use of big audit firms following IFRS adoption, probably due to the increased cost of employing a big 4 audit firm. It was observed that some listed companies shifted to employing midsize audit firms like PKF and BDO following IFRS adoption. Average change in turnover increased in the post-IFRS period. The reduction in the average change in account receivable and an increase in operating cash flow reflect the possibility that cash sales increased post-IFRS adoption. The increase in average PPE in the post-IFRS period constitute 51% of the increase in the mean of total assets.

Table 3.9 presents the descriptive statistics of all variables before and after the establishment of the FRCN. T-test and Wilcoxon rank-sum test are used to test the statistical significance of the differences in means of the variables.

The mean AWCA is larger while the mean DA is smaller following the FRCN establishment, which suggests a substitution of AWCA for DA. However, this difference is not significant based on the result of the T-test and the Wilcoxon test.

Timely loss recognition in the post-FRCN establishment period increases, which justifies the increase in average leverage and new debt issue. However, this increase is not statistically significant.

The mean of company size significantly increases following the establishment of the FRCN. This corresponds to the significant increase in the average total assets in the post-FRCN establishment period. Average cashflow from operations increases in the post-FRCN establishment period possibly due to the increased total assets, which

generate more cash flow from operations. The mean return on assets (ROA) prior to the establishment of the FRCN is significantly higher than the mean ROA in the post-IFRS adoption period. This is likely a result of the significant increase in the average total assets in the post-FRCN establishment period. Average leverage is higher in the post-FRCN establishment period, justifying the significant increase in new debt issue (DISSUE) following IFRS adoption. There is no reduction in the new equity issue in the post-FRCN establishment period. There is a slight reduction in the use of big audit firms following IFRS adoption, probably due to the increased cost of employing a big 4 audit firm. It was observed that some listed companies shifted to employing midsize audit firms like PKF and BDO in the post-FRCN establishment period.

In a similar way, as found in post-IFRS adoption period, average change in sales, average account receivable and PPE increased following the establishment of the FRCN.

Table 3.10 presents the correlation results among the variables used in the four models, i.e., DA, AWCA, timely loss recognition and earnings persistence. The correlation between the DA and AWCA is positive and significant at 10% level of significance. However, IFRS and ENF have a negative but insignificant relationship with both DA and AWCA, suggesting that the two independent variables may reduce earnings management. Similarly, both IFRS and ENF have positive relationships with timely loss recognition, suggesting that the two independent variables may increase conditional conservatism. The general results indicate no multicollinearity problem among the variables, as no two variables used in a model have a correlation more than 0.8 (Field, 2014).

3.9.3 Multivariate Analysis

Multiple regression analysis is used for the discretionary accrual and AWCA model. Specifically, the fixed-effect model is adopted, as the Hausman test (p-value = 0.000) indicates no significant difference between the coefficients of the fixed-effect and random-effect models. The variables were winsorized at 1% to control for outliers. A modified Wald test for group-wise heteroscedasticity was conducted and the null hypothesis of constant variance was rejected at 1% level of significance, implying the presence of heteroscedasticity. To control for this, the standard errors were clustered using Huber-White estimation to obtain heteroskedasticity-robust standard errors.

Table 3.8 Descriptive Statistics of Variables before and after IFRS Adoption

Panel A	**Pre-IFRS adoption**					**Post-IFRS adoption**					**Univariate analysis**	
Variables	**Obs**	**Min**	**Max**	**Mean**	**Std. Dev**	**Obs**	**Min**	**Max**	**Mean**	**Std. Dev**	**T-test**	**Wilcoxon rank-sum test**
|DA|	229	.008	.389	.124	.074	238	.008	.389	.115	.065	0.1593	0.2612
AWCA	236	2.106	38900	3027	6010	237	2.106	38900	3201	6428	0.6796	0.9410
LL	237	0	1	.18565	.38394	236	0	1	.21186	.41409	0.4761	0.4755
$EPSt_1$	238	-2.54	26.67	1.55	3.49	227	-15.49	28.08	1.51	4.04	0.3824	0.6443
SIZE	240	11.66	20.08	16.12	1.60	240	11.66	20.19	16.42	1.69	0.0452**	0.0567*
CFO	235	-8.43	95.17	4.24	11.19	238	-8.43	95.17	5.87	15.18	0.1447	0.2844
ROA	237	-.259	.393	.101	.107	240	-.259	.393	.071	.110	0.0115**	0.0306**
LEV	240	.117	1.504	.584	.240	240	.117	1.50	.610	.233	0.2731	0.2445
DISSUE	242	0	1	.302	.460	239	0	1	.385	.488	0.0725*	0.0716*
EISSUE	242	0	1	.041	.199	240	0	1	.021	.143	0.0716*	0.0716*
AUD	237	0	1	.63713	.48185	240	0	1	.59167	.49255	0.2412	0.2408
Total ACC	241	0.983	112000	3277.88	9267.83	240	390	94300	3492.46	9542.33	0.7825	0.4088
ΔSALES	236	-272000	208000	4577.53	18200	238	-223000	107000	2498.76	20500	0.2570	0.0124**
ΔAccRec.	227	-16500	26000	873.09	3651.46	238	-20300	30700	764.72	5163.92	0.7972	0.2191
PPE	240	3.561	349000	15500	41300	240	5700	748000	26000	72000	0.0493**	0.0506*
Total ASS	240	86.224	526000	33800	69600	240	108.08	985000	55000	129000	0.0240**	0.0567**

Key: DA=discretionary accrual, AWCA= abnormal working capital accrual, LL = large losses, EPS = earnings per share, CFO = cash flow from operations, ROA = return on assets, LEV = leverage, DISSUE = new debt issue, EISSUE = new equity issue and AUD = audit, Total ACC = total accruals, ΔSALES = change in sales, ΔAccRec. = change in account receivables, PPE = property plant & equipment, Total ASS = total assets.

Note: ***, **, and * are 1%, 5% and 10% levels of significance, respectively.

Table 3.9 Descriptive Statistics of Variables before and after FRCN Establishment (Enforcement)

Panel B	Pre-FRCN establishment					Post-FRCN establishment					Univariate analysis	
Variables	**Obs**	**Min**	**Max**	**Mean**	**Std. Dev**	**Obs**	**Min**	**Max**	**Mean**	**Std. Dev**	**T-test**	**Wilcoxon rank-sum test**
|DA|	149	.008	.389	.124	.075	318	.008	.389	.117	.067	0.2778	0.4265
AWCA	157	2.106	38900	3092	6230	316	2.105	38900	3172	6227	0.8960	0.8622
LL	156	0	1	.17308	.37582	319	0	1	.21137	.41019	0.3277	0.3272
$EPSt_1$	155	-2.54	20.81	1.55	3.31	310	15.49	28.08	1.51	3.98	0.4249	0.8623
SIZE	158	11.66	19.81	16.06	1.59	322	11.66	20.19	16.37	1.68	0.0520*	0.0282**
CFO	153	-8.43	79.51	4.19	10.19	320	-8.43	95.17	5.47	14.62	0.1825	0.9791
ROA	156	-.259	.393	.105	.109	321	-.259	.393	.077	.108	0.0187**	0.0282**
LEV	158	.117	1.504	.576	.233	322	.117	1.504	.607	.238	0.1564	0.1445
DISSUE	160	0	1	.250	.434	321	0	1	.389	.488	0.0019***	0.0020***
EISSUE	160	0	1	.031	.175	322	0	1	.031	.174	0.9954	0.9954
AUD	155	0	1	.63871	.48193	322	0	1	.60248	.49015	0.4522	0.4516
Total ACC	159	2.733	112000	3232.16	10100	322	0.39	94300	3460.39	9025.63	0.7902	0.5790
ΔSALES	155	-272000	128000	3433.59	13400	319	-223000	208000	3582.43	21700	0.9381	0.1745
ΔAccRec.	147	-16500	17300	513.50	2917.85	318	-20300	30700	958.21	5046.04	0.3453	0.2959
PPE	158	41.780	306000	14500	38600	322	3.561	748000	23800	66400	0.1008	0.0622*
Total ASS	158	86.224	402000	31200	63100	322	98.091	985000	50900	119000	0.0497**	0.0553*

Key: |DA| =discretionary accrual, AWCA= abnormal working capital accrual, LL = large losses, EPS = earnings per share, CFO = cash flow from operations, ROA = return on assets, LEV = leverage, DISSUE = new debt issue, EISSUE = new equity issue and AUD = audit, Total ACC = total accruals, ΔSALES = change in sales, ΔAccRec. = change in account receivables, PPE = property plant & equipment, Total ASS = total assets.

Note: ***, **, and * are 1%, 5% and 10% levels of significance, respectively.

Table 3.10 Pairwise Correlation of all Variables used for all Models

	EPS	EPS1	LL	AWCA	ROA	SIZE	|DA|	LEV	IFRS	ENF	PPE	EISSUE	DISSUE	IFRSEPS	AUD	ΔSALES	ΔACCREC	TOTAL ASS	CFO
EPS	1																		
EPS_{t1}	0.843***	1																	
LL	-0.282***	-0.244***	1																
AWCA	0.268***	0.241***	-0.0290	1															
ROA	0.372***	0.353***	-0.510***	-0.00784	1														
SIZE	0.416***	0.387***	-0.166***	0.410***	0.0913	1													
|DA|	0.145**	0.130**	-0.00128	0.105*	0.0374	0.0956*	1												
LEV	-0.00690	0.0269	0.326***	0.125**	-0.251***	0.0130	0.000301	1											
IFRS	0.0314	-0.0211	0.00728	-0.0100	-0.0915	0.0719	-0.0740	0.0499	1										
ENF	0.0114	-0.0199	0.0478	-0.0225	-0.0929	0.0733	-0.0856	0.0765	0.689***	1									
PPE	0.397***	0.392***	-0.0924	0.436***	0.125**	0.571***	0.261***	-0.0502	0.0896	0.0703	1								
EISSUE	-0.0529	0.00760	0.0911	-0.0288	-0.0590	0.0627	0.0461	0.0454	-0.0785	-0.0134	0.00462	1							
DISSUE	-0.0478	-0.0284	0.0268	0.0437	-0.0572	0.162***	0.121*	-0.0301	0.0609	0.118*	0.165***	0.0336	1						
IFRSEPS	0.711***	0.524***	-0.187***	0.128**	0.231***	0.290***	0.0498	-0.0548	0.328***	0.226***	0.355***	-0.0458	-0.000649	1					
AUD	0.209***	0.192***	-0.0726	0.148**	0.112*	0.358***	-0.00885	0.117*	-0.0695	-0.0384	0.204***	0.00668	-0.0540	0.0910	1				
ΔSALES	0.271***	0.302***	-0.113*	0.163***	0.112*	0.263***	0.356***	-0.0148	-0.0515	0.00476	0.325***	0.128**	0.109*	0.191***	0.115*	1			
ΔACCREC	0.133**	0.101*	-0.0879	0.123*	0.0379	0.250***	0.0159	0.0448	-0.00790	0.0485	0.129**	0.0147	0.0254	0.130**	0.0743	0.0624	1		
TOTAL ASS	0.384***	0.356***	-0.0958*	0.520***	0.0812	0.653***	0.167***	-0.00128	0.103*	0.0855	0.940***	0.0174	0.142**	0.336***	0.230***	0.278***	0.196***	1	
CFO	0.416***	0.407***	-0.117*	0.331***	0.203***	0.416***	-0.0423	-0.0856	0.0682	0.0615	0.773***	-0.0365	0.105*	0.406***	0.150**	0.215***	-0.00760	0.691***	1

Key: |DA| =discretionary accrual, AWCA= abnormal working capital accrual, LL = large losses, EPS = earnings per share, CFO = cash flow from operations, ROA = return on assets, LEV = leverage, DISSUE = new debt issue, EISSUE = new equity issue and AUD = audit, Total ACC = total accruals, ΔSALES = change in sales, ΔAccRec. = change in account receivables, PPE = property plant & equipment, Total ASS = total assets.

Note: ***, **, and * are 1%, 5% and 10% levels of significance, respectively.

A logistic regression model, developed by Lang et al. (2006), was run for the timely loss recognition model following Barth et al. (2008) and Christensen et al. (2015). The standard errors are clustered to control for heteroscedasticity using Huber-White estimation. For the persistence model, a system generalized method of moment (i.e., system GMM) was run since one of the independent variables is a lag of the dependent variable. The "Allerano-Bond test for zero autocorrelation in first-differenced error" (Cameron and Trivedi, 2009, p. 294) was conducted. The p-values for the test are 0.012 and 0.334 respectively for orders 1 and 2, suggesting no autocorrelation at higher orders. Hansen test of over identifying restrictions gave a p-value of 0.579, which suggests the validity of the instrument.

Table 3.11 presents the results for the four models of accounting quality. In the modified Jones model, IFRS is significantly positive at 1% level of significance, indicating that the adoption of IFRS in Nigeria does not reduce earnings management of Nigerian listed firms but rather increases it. Thus, contrary to the expected result, the first hypothesis is rejected. However, this result is consistent with the findings of Capkun et al. (2016), who argue that the 2005 amendments made by the IASB to IFRS increase the ability of managers to use discretion in reporting, which consequently increase their earnings management behaviour.

On the other hand, enforcement is significantly negative at 5% level of significance in the modified Jones model, indicating that the creation of the FRCN and its implementations of procedures and policies for the enforcement of accounting standards significantly reduce earnings management behaviour of Nigerian listed firms. Thus, the second hypothesis is confirmed. This finding supports the conclusion of Christensen et al. (2013) that when IFRS is mandatorily adopted, it is enforcement of the standard rather than IFRS adoption that improves accounting quality. This suggests that prior studies that focused only on the effect of IFRS adoption in explaining accounting quality are limited by not considering the effect of enforcement. Overall, this result is novel, as it shows that the adoption of IFRS alone may be counterproductive in achieving the desired goal of improving accounting quality in Nigeria following the 2008/2009 market crisis. This result further clarifies why earnings management based on discretionary accrual did not significantly reduce in Nigeria, as the two regulatory mechanisms have opposing effect on earnings management.

Table 3.11 Regression Results for all the Models

Variables	Fixed-Effect Regression		Binary Logistic Regression	Generalized Method of Moment
	MJDA Model (p value)	*AWCA Model (p value)*	*Loss Recog. Model (p value)*	*Persistence Model (p value)*
Constant	-0.261 (0.320)	-2660 (0.113)	3.2239 (0.069)*	-2.6781 (0.094)*
CFO	-0.0014 (0.001)***	3773 (0.569)	-0.012 (0.389)	
ROA	0.0822 (0.084)*	-6399 (0.049)**	-25.6026 (0.000) ***	
LEV	0.0308 (0.190)	1252 (0.452)	1.769 (0.002)	
SIZE	0.0227 (0.162)	4171 (0.083)*	-0.687 (0.010) ***	
AUD	0.0071 (0.399)	1532 (0.114)	0.0216 (0.959	
DISSUE	0.0058 (0.336)	2684 (0.503)	0.3988 (0.265)	
EISSUE	0.0088 (0.623)	-3846 (0.005)***	0.8613 (0.077) *	
ENF	-.0291 (0.017)**	-2923 (0.012)**	16.936 (0.000) ***	
IFRS	0.0962 (0.000)***	1358 (0.329)	-41.065 (0.000) ***	6.1047 (0.048) **
IFRSEPS				-0.8312 (0.023) **
EPS				1.2393 (0.000) ***
Year effects	Yes	Yes	Yes	Yes
Industry effect	-	-	Yes	-
Adjusted R^2	8.5%	33.6%	48.6%§	-
N (firm-yrs)	459	464	454	460

, ** and * imply significant levels of 1%, 5% and 10%, respectively.*

The results of the AWCA model indicate only enforcement by the FRCN to be significantly negative at 5%. Thus, the second hypothesis is supported in a similar way to the modified Jones model. Although IFRS adoption is positively related to earnings management, proxied by AWCA, it is not significant. This result also goes contrary to our expectation. Hence, enforcement by the FRCN outweighs the impact of IFRS adoption in reducing earnings management by Nigerian firms based on the AWCA model.

For the timely loss recognition model, both IFRS adoption and the FRCN enforcement are found to significantly reduce timely loss recognition by the Nigerian listed firms at 1% level of significance. Therefore, the third and fourth hypotheses, contrary to the expectations, are rejected. The negative coefficient of the IFRS variable is

consistent with the argument of Capkun et al. (2016) that post-2005, IFRS adoption reduces accounting quality. However, the negative coefficient of the Enf variable implies that the FRCN may not view timely loss recognition as a desirable accounting quality and may view it from the valuation perspective (Ruch and Taylor, 2015). A valuation perspective assumes that accounting information is useful for investment decisions, hence, timely loss recognition is not a desirable attribute.

Finally, in the earnings persistence model, the interactive variable between IFRS and EPS is negatively associated with one-year future earnings (EPS_{t+1}) at 5% significance level. Thus, the fifth hypothesis is rejected. This result supports Capkun et al.'s (2016) argument that post-2005, IFRS adoption reduces accounting quality. This provides further evidence that adoption of IFRS does not enhance accounting quality in Nigeria.

Consistent with Marra et al. (2012) and Zeghal et al. (2012), cash flow from operations (CFO) has a negative effect on discretionary accrual. Similarly, ROA has a negative relationship with AWCA but a positive relationship with DA. Size has a positive relationship with AWCA (Dimitropoulos, Asteriou, Kousenidis and Leventis, 2013) while EISSUE reduces AWCA.

For the timely loss recognition model, leverage has a significant and positive relationship with large losses, thus supporting the argument that debtholders are interested in the debt-paying ability of a firm when all possible losses are accounted for. ROA and Size have negative relationship with LL, while EISSUE has a positive relationship with LL (Zeghal et al., 2012).

3.9.3.1 Sensitivity analysis

The argument in this study is that the effective date of enforcement was 2011. Notwithstanding this argument, the sensitivity of the result to an alternative effective date (i.e., 2010) is tested. This is to ensure that the effectiveness of the improved enforcement by the NASB is considered. To test whether the initial results are sensitive to this argument, a new regression is run with the binary variable, Enf, measured as 0 for 2009 and 1 from 2010 – 2014. Table 3.12 presents the result of the regression analysis of the earnings management and the timely loss recognition model. The earnings persistence model is not presented since it is not affected by enforcement. The results are largely similar to the initial results. IFRS reduces timely loss recognition and increases earnings management through the manipulation of discretionary accruals. However, although enforcement significantly increases timely loss recognition, it does not have a significant

effect on earnings management. There seems to be a change of focus in the enforcement priorities of the NASB in 2010 and the FRCN in 2011. The NASB focuses on timely loss recognition as a desirable accounting attribute while the FRCN focuses on reducing earnings management.

Table 3.12 Sensitivity Analysis Results (Effective Date of Enforcement)

Models	**Fixed-Effect Regression**		**Binary Logistic Regression**
Variables	***MJ Model (p value)***	***AWCA Model (p value)***	***Timely Loss Recog. Model (p value)***
Constant	-0.3058 (0.343)	-2.56 (0.166)	2.7855 (0.143)
CFO	-0.004 (0.001)***	3773 (0.569)	-0.0141 (0.538)
ROA	0.0398 (0.389)	-6399 (0.049)**	-22.0934 (0.000)***
LEV	0.0145 (0.614)	1252 (0.452)	2.8899 (0.001)***
SIZE	0.0284 (0.163)	1752 (0.125)	-0.3236 (0.005)***
AUD	0.0083 (0.434)	1111 (0.446)	0.1403 (0.733)
DISSUE	0.0052 (0.631)	-2883 (0.609)	0.3416 (0.371)
EISSUE	0.0003 (0.987)	-7404 (0.067)*	0.4903 (0.403)
ENF	-0.002 (0.926)	-1111 (0.920)	14.0247 (0.000)***
IFRS	0.0962 (0.000)***	-3772 (0.468)	-14.4917 (0.000)***
Year effects	Yes	Yes	Yes
Industry effects	-	-	Yes
Adjusted R^2	42.03%	5.48%	47.48%
N (firm-yrs)	459	464	454

, ** and * imply significant levels of 1%, 5% and 10%, respectively.*

To isolate the impact of the enforcement by the FRCN from the effect of IFRS adoption, since an interaction variable between IFRS and enforcement could not be created due to the binary variable used to measure both the Enf variable and the IFRS variable, accounting quality regression models are further estimated for the period 2009 – 2011 period. This period excludes the IFRS adoption period of 2012, hence, only the impact of enforcement is determined. It is expected that a similar result to the initial results will be found. Table 3.13 shows the regression results for the period 2009 – 2011.

As obtained in the initial results, enforcement has a negative relationship with the discretionary accrual, thereby reducing earnings management. Similarly, the FRCN does not consider timely loss recognition as a desirable accounting attribute, hence, the negative relationship between timely loss recognition and enforcement.

Table 3.13 Sensitivity Analysis Results (2009-2011 Period)

Models	**Random-Effect Regression**		**Binary Logistic Regression**
Variables	***MJ Model (p value)***	***AWCA Model (p value)***	***Timely Loss Recog. Model (p value)***
Constant	-0.3441 (0.335)	-2420 (0.050)**	2.803 (0.327)
CFO	-0.0052*** (0.000)	3499 (0.079)	-0.0003 (0.999)
ROA	0.0524 (0.507)	-1090 (0.058)*	-22.955 (0.000)***
LEV	-0.0036 (0.915)	4672 (0.174)	4.9901 (0.000)***
SIZE	0.0326 (0.184)	1691 (0.047)**	-0.4106 (0.026)**
AUD	0.0237 (0.224)	-1634 (0.863)	0.8813 (0.157)
DISSUE	0.0072 (0.663)	-9742 (0.575)	0.6532 (0.279)
EISSUE	0.0326 (0.791)	-3852 (0.169)	0.2713 (0.684)
ENF	-0.0454 (0.070)*	1625 (0.390)	-17.6045*** (0.000)
Year effects	Yes	Yes	Yes
Industry effects	Yes	Yes	Yes
Adjusted R^2	17.63%	49.22%	46.9%
N (firm-yrs)	221	228	230

, ** and * imply significant levels of 1%, 5% and 10%, respectively.*

To further test whether the conclusions drawn from the regression results on the effect of enforcement for the period 2009 – 2011, which agrees with the initial findings, is sensitive to the effective date of enforcement, a different set of regression is run for the period 2009 – 2011 with the enforcement variable measured as 0 for 2009 and 1 for 2010 – 2011. The result, see Table 3.14, equally agrees with the initial findings, as enforcement has a negative relationship with earnings management and a positive relationship with timely loss recognition.

Table 3.14 Sensitivity Analysis Result for the Period 2009 – 2011 and 2010 as the Effective Date of Enforcement

Models	Random-Effect Regression		Binary Logistic Regression
Variables	***MJ Model (p value)***	***AWCA Model (p value)***	***Timely Loss Recog. Model (p value)***
Constant	-0.3367 (0.340)	-2400 (0.051)*	1.8532 (0.497)
CFO	-0.0052*** (0.000)	3505 (0.079)*	-0.004 (0.893)
ROA	0.0443 (0.582)	-1100 (0.060)*	-21.5556 (0.000)***
LEV	-0.0017 (0.959)	4727 (0.170)	4.3501 (0.001)***
SIZE	0.0323 (0.182)	1679 (0.047)**	-0.3322 (0.059)*
AUD	0.0246 (0.219)	-1966 (0.834)	-0.7263 (0.222)
DISSUE	0.0051 (0.758)	-9795 (0.576)	0.432 (0.464)
EISSUE	0.011 (0.739)	-3852 (0.170)	0.1014 (0.876)
ENF	-0.1079 (0.062)*	-2977 (0.219)	13.0515 (0.000) ***
Year effects	Yes	Yes	Yes
Industry effects	Yes	Yes	Yes
Adjusted R^2	17.64%	49.37%	44.46%
N (firm-yrs)	221	228	230

, ** and * imply significant levels of 1%, 5% and 10%, respectively.*

3.10 Conclusion

This study examines the effects of two regulatory mechanisms, IFRS adoption and accounting enforcement, on four proxies of accounting quality. While prior studies find positive effects (Christensen et al., 2013; Cai et al., 2014; Kim, 2016) of both IFRS and enforcement on accounting quality, albeit at varying levels of significance, this study shows that IFRS and enforcement can have different effects on accounting quality. Christensen et al. (2013) find that IFRS has little impact in improving market liquidity, rather the enforcement of accounting standards increases market liquidity. Similarly, Cai et al. (2014) find that only countries with high divergence from IFRS and strong legal enforcement experience a reduction in earnings management.

Furthermore, this study's finding reemphasises the importance of considering the institutional setting in IFRS-related research. The unique Nigerian setting, where enforcement was made a year before IFRS adoption, revealed the opposite effects of the two regulatory mechanisms to accounting quality. It also shows the importance of being informed of the impact of any regulatory tool prior to the adoption and enforcement in solving problems associated with market failures.

Finally, this study finds that the effect of IFRS and enforcement on accounting quality may not be limited by the extent of divergence of a country's national GAAP from IFRS, as argued by Cai et al. (2014). The Nigerian GAAP has a low divergence from IFRS and yet the effect of IFRS in reducing accounting quality is significant.

The adoption of IFRS by Nigeria, as this study reveals, clearly increases accounting manipulation, which may make the effort of the FRCN to reduce earnings management in the country more difficult because of the flexibility allowed by IFRS. Although, enormous costs and efforts have been put into IFRS adoption and enforcement in Nigeria, a reversal of these steps may not be feasible or may even be costlier. Future research should look at specific changes in IFRS that aid accounting manipulations so that they can be addressed by the regulator. Conclusively, countries with similar institutional settings like Nigeria will find the result of this study a great input in making informed policies when regulating their reporting regime.

Despite the strength of this study, there are some limitations. The study does not address the effect of the interaction of IFRS and enforcement, as creating such variable leads to a perfect collinearity with the IFRS variable. This is so because IFRS was mandated at the same time (2012) in Nigeria for the listed companies. Hence, there is no variation in their adoption of the standard by the firms. Similarly, a more critical theory (e.g., institutional theory) may be explored to further understand the underlying isomorphic pressures that could explain the change in the accounting quality of Nigerian listed firms. This would need further data (interviews) collection which is beyond the scope of this work.

Chapter 4

The Effect of Accounting Regulation on Stock Market Liquidity in Nigeria

4.1 Background to the Study

The collapse of Enron and WorldCom, the Asian financial crisis of 1997, and the global meltdown of 2008 are evidence of the consequences of lax regulatory regimes. Sequel to these events and motivated by the growing spate of globalisation (Ball, 2016), countries across the globe have adopted several measures to strengthen their financial reporting regulation and capital market activities. In recent years, such measures have taken the form of the adoption of 'high quality' financial reporting standards (IFRS) and concurrent enforcement (Leuz and Wysocki, 2016). Advocates of IFRS have argued that its adoption brings about several capital market benefits (De George, Li and Shivakumar, 2016). For example, the use of fair-value accounting in IFRS, is argued to be more transparent, increases disclosure, and leads to better cross-country comparability of financial statements. These attributes consequently reduce information asymmetry, which leads to higher stock liquidity, lower cost of capital, improved stock valuation, and increased cross-border financing (De George et al., 2016).

However, evidence of the capital market benefits of IFRS adoption remains mixed. Regarding stock market liquidity, previous studies conclude that voluntary adoption of IFRS does not lead to improved stock liquidity (Leuz, 2003; Daske, 2006; Daske, Hail, Leuz and Verdi, 2013). For mandatory IFRS adopters, Daske, Hail, Leuz and Verdi (2008) find that stock liquidity and value-relevance of accounting numbers increased, while cost of capital reduced for firms with incentives to be transparent and in countries with strong legal enforcement. Similarly, Li (2010) find that IFRS adoption reduces cost of capital for EU countries with strong legal enforcement. Furthermore, Christensen, Hail and Leuz (2013) find that enforcement made concurrently with IFRS is more important in explaining the liquidity benefits ascribed to IFRS adoption in prior studies than IFRS adoption itself. A key finding in all these prior studies is the need to enforce IFRS in order to have a positive capital market outcome. More so, Leuz and Wysocki (2016), argue that prior studies suffer from the inability to properly distil the effect of IFRS separately from the effect of other institutional reforms on capital market outcomes, as IFRS is concurrently adopted alongside other reforms. Similarly, Brown, Preiato and Tarca (2014) find that the proxies used for enforcement in cross-country IFRS

studies are deficient, as they do not capture mechanisms that really influence compliance with accounting standards in the form of audit and independent enforcement body.

Amidst this ongoing debate, this study seeks to find the implication of IFRS adoption and enforcement on stock market liquidity in the context of Nigeria. Nigeria creates a novel setting for this inquiry, as enforcement, through the establishment of Financial Reporting Council of Nigeria in 2011, precedes IFRS adoption in 2012. Thus, this enables the researcher to naturally disentangle the effect of IFRS from enforcement.

4.2 Statement of the Problem

Most empirical studies find a positive effect of IFRS adoption on several capital market outcomes (e.g., market liquidity, cost of capital and value relevance). However, studies that have taken further analyses (Daske et al., 2008; Li, 2010; Florou and Kosi, 2015) of these results conclude that such market benefits are concentrated in countries with strong legal system or whose local GAAP exhibits a high divergence from IFRS. Moreover, Daske et al. (2008) and Christensen et al. (2013) argue that such conclusions need further justifications, as there are many cofounding variables, most importantly enforcement institutions, that affect this causal relationship between mandatory IFRS adoption and capital market outcomes. Christensen et al. (2013) particularly argue that in most jurisdictions, IFRS is adopted with concurrent strengthening of enforcement mechanisms, which makes the positive effect of IFRS on capital market outcomes found in several studies questionable. In their study, they find that enforcement rather than IFRS adoption explains the capital market benefits in the EU. Thus, knowing which of these competing explanations account for the capital market benefits is crucial for regulators, policy makers, and researchers. This study seeks to address this problem from a developing country perspective.

Nigeria in particular, creates a novel setting for this inquiry, as enforcement through the establishment of Financial Reporting Council of Nigeria in 2011, precedes IFRS adoption in 2012. Thus, this enables the researcher to naturally disentangle the effect of IFRS from enforcement. More so, De George et al. (2016) made a recent call for a 'precise[41]' enforcement mechanism that underpins the market benefits observed in prior studies. Such precise enforcement mechanism is available in Nigeria through the creation of the FRCN.

[41] That is, not a mix of different reforms and rules happening concurrently, all of which could have some capital market effects.

4.3 Research Objective

The objective of this study, which constitutes the third issue addressed in this thesis, is to examine the impact of IFRS adoption and the creation of Financial Reporting Council of Nigeria (enforcement) on stock market liquidity of Nigerian listed firms. To achieve this objective, the following research questions will be answered:

a) What is the impact of IFRS adoption on stock market liquidity of Nigerian listed firms?
b) What is the impact of the establishment of the Financial Reporting Council of Nigeria on stock market liquidity of Nigerian listed firms?

4.4 Significance of the Study

This study contributes to the literature in a number of ways. It explores a theoretical link (signalling theory) between market liquidity and IFRS adoption and enforcement, which has not been considered in prior studies. This is in response to the call made by Leuz and Wysocki (2016) for a 'descriptive empirical[42]' study that is theory-driven. Secondly, as a single country study, it is less influenced by conflicting heterogeneous market responses to IFRS adoption that may be found in multiple country studies. Thirdly, this study is the first, as far as the researcher is aware, to examine the effect of IFRS adoption together with enforcement on market liquidity from a developing country context. Finally, the adoption of IFRS and the creation of FRCN are the major reforms expected to trigger capital market benefits in Nigeria, hence, obviating many alternative explanations (e.g., strong legal enforcement and institutions) for any observed capital market benefits. This is because Nigeria has a weak legal enforcement, weak corporate governance mechanisms, and low divergence from IFRS (ROSC, 2004; 2011).

4.5 Scope of the Study

Capital market response to accounting regulation can be viewed from many angles. For example, value-relevance, cost of capital, analyst forecast error, and the number of analyst following. However, of all these responses, market liquidity is the one that can be most theoretically justified (Christensen et al., 2013). More so, following the 2008 financial crisis, the importance of market liquidity has risen for investors' decision making (Amihud and Mendelson, 2012).

[42] A descriptive empirical study according to Leuz and Wysocki (2016) is targeted at theoretically explaining any association that may be found with capital market outcome and IFRS adoption and not directed at making a causal inference per se.

Particularly in Nigeria, low market liquidity is recognised as one of the major problems faced by the Nigerian Stock Exchange, as revealed by the SEC report (2009). Hence, based on these arguments, this study will focus on the consequence of accounting regulation on market liquidity of Nigerian listed firms.

4.6 Literature Review

4.6.1 Regulatory Bodies for the Nigerian Capital Market

Nigeria operates only one capital market (i.e., the Nigerian Stock Exchange) on which Nigerian listed companies' stock are traded. Prior to the establishment of the Nigerian Stock Exchange (NSE), the banking sector was the hub for savings and deposits in Nigeria. Nigeria's capital balances were invested in the London Stock Exchange through stock brokers based in London. Subsequently, the Lagos Stock Exchange was established in 1960 and began operation in 1961 as Nigeria's capital market (SEC, 2009). In 1977, the Lagos Stock Exchange was named the Nigerian Stock Exchange. At this point in time, the NSE was incorporated as an association limited by shares under the Companies' Ordinance. In 1990, however, the NSE became limited by guarantee. The NSE comprises of 3 listing segments, namely the premium board (comprising of elite companies that are industry leaders), the main board, and the Alternative Securities Market (ASeM) for small and midsized companies.

The Federal Ministry of Finance (FMF) was established by the Finance (Control and Management) Act Cap. 144 of 1958 in replacement of the Finance Department. The FMF is responsible for the control and management of public funds. In line with the provisions of the Act, the Ministry's functions are: supervision and control of the Federation account[43] including those meant for development and contingencies; managing and controlling the federal government's account (i.e., consolidated revenue fund); management of the federal government's investments; controlling and managing federal government's expenditure; annual preparation of the federal government's budget; and controlling and managing external finances of the federal government

The Central Bank of Nigeria (CBN) came into being as a result of the 1958 Act of Parliament as amended[44]. The CBN is charged with the issuance of Nigeria's currency (Naira), taking charge of the nation's monetary policies, maintaining the external reserve, promoting a sound financial system in Nigeria, and serving as a banker to the federal government and other banks. The CBN regulates the capital market through its control of

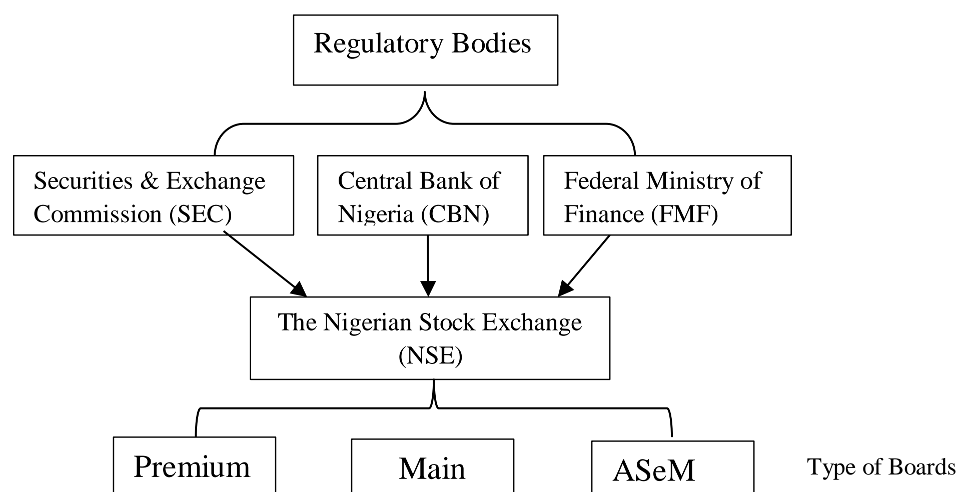
[43] Federation account in Nigeria accounts for all funds which are meant to be distributed among the three tiers of government in Nigeria (i.e. federal, state and local government).

[44] In 1991, 1993,1997,1998,1999 and 2007.

the Nigeria's financial sector. In the same vein, it regulates the issuance of government treasury bills and certificates.

The antecedents to the establishment of the Securities and Exchange Commission (SEC) began with the creation of a Capital Issues Committee (CIC) by the CBN in 1962. The Committee was charged with considering applications from companies that needed to raise capital from the market and recommending the timing of any issues. Following the promulgation of the Nigerian Enterprises Promotion (Indigenisation) Decree of 1972, which recommended a minimum equity participation of Nigerians in some enterprises, public participation in shareholding increased, which led to increased capital market activities. The Capital Issues Commission was established in 1973, replacing the Capital Issues Committee, to regulate the pricing and issuance of securities for public offers. Sequel to this development, the promulgation of the Nigerian Enterprises Promotion Decree of 1977 (a second indigenisation law) was made, thus, capital market activities received a further boost. The Financial System Review Committee recommended the establishment of the SEC to the federal government. The Securities and Exchange Commission Act of 1979 (re-enacted as SEC Act of 1988) established the SEC with the following mandates: regulation and development of the capital market; determination of the prices of securities and establishment of the basis of allotment of securities. In 1996, a review of SEC's role and effectiveness in the capital market was conducted. This led to the promulgation of Investment and Securities Act No. 45 of 1999 (re-enacted in 2007). The SEC became a member of the International Organisation of Securities Commissions (IOSCO) in June 1985 and qualified as an Appendix 'A' Signatory to the IOSCO MMOU in 2006. Figure 4.1 illustrates the Nigerian capital market regulatory bodies.

Figure 4.1 Regulatory Bodies of the Nigerian Capital Market



4.6.2 The Nigerian Stock Market before IFRS adoption and FRCN Establishment

The Nigerian capital market experienced an unprecedented growth following major reforms in the banking, insurance, and pension sector between 2004 and 2007. The recapitalisation of banks and insurance companies in 2005 and 2007 led to the banks approaching the capital market for funds. Their success in raising over $10 billion encouraged other companies to approach the capital market for equity funding of their businesses. Similarly, the Pension Reform Act of 2004 that established a contributory pension scheme in Nigeria led to a contribution pool of ₦125 billion (i.e., $83 million) (as at 2009 with 15% projected annual growth) for investment purposes. Furthermore, the implementation of a number of economic reforms[45], the cancellation of sovereign debt owed to the Paris Club, and the improvement in Nigeria's foreign reserve balance "increased awareness and confidence in the capital market and encouraged availability of credit to local banks by responding international banks and investors" (SEC, 2009, p. 10). Cumulatively, these factors led to the growth of the Nigerian capital market from a market capitalization of ₦1.4 trillion in 2003 to ₦10.2 trillion in 2007. Daily average trade in 2008 was more than ₦10 billion. Standard and Poor's described the Nigerian capital market as the fastest growing in emerging markets (SEC, 2009).

However, there was a downturn in the growth of the Nigerian capital market by the end of 2008. There was a significant drop in the All-Share Index by 56% by December 2008. Average trading volume equally dropped by 77% and market capitalization abnormally reduced by ₦5.7 trillion just between March and December 2008 (SEC, 2009). The downturn was a result of reduction in investors' confidence in the market. The SEC report (2009) states the following:

> The increasing unease about valuation in the market precipitated a noticeable exit of domestic and foreign investors from the market. Regulatory pronouncements and actions seemed to only exacerbate the situation, the resultant uncertainty further undermined investors' confidence in the market (p. 11).

The unease about valuation, as mentioned in the SEC report above, was in part a result of weaknesses in regulation and accounting and auditing standards (ROSC, 2011). For example, some banks employed creative accounting in inflating their balance sheet values, which translated to high market values. The ROSC (2011) further unveiled many accounting manipulations by Nigerian listed companies, including improper revenue

[45] For example, the establishment of due process in public procurement and contracts and the establishment of Economic and Financial Crimes Commission (EFCC).

reporting, non-disclosure of full liability for employee benefits, and misclassification of leases. The lack of transparency in reporting as well as regulation (SEC, 2009) led to the pull out of both domestic and foreign investors.

The ROSC (2011) recommended the adoption of IFRS and the creation of the Financial Reporting Council of Nigeria (FRCN) to ameliorate the financial reporting integrity of Nigerian companies in 2012 and 2011, respectively. The FRCN is charged with enforcing and monitoring compliance with the Nigerian accounting standards (later IFRS) by Nigerian firms among other duties. It is the consequence of these regulations on the capital market that is the subject matter of this study.

4.6.3 Signalling Theory

Signalling theory was propounded by Spence (1973) in relation to job applicants that try to reduce information asymmetry between themselves and potential employers by showcasing their potentials through rigorous higher education trainings. In essence, signalling theory entails the reduction of information asymmetry between two parties (Spence, 2002). Information asymmetry presumes the possession of private information by one party, which would ordinarily enhance the decision-making of the other party if it were available. According to Stiglitz (2002), information asymmetry is when “different people know different things” (p. 469). To reduce information asymmetry, one party (the signaller) signals to another party (the receiver) who in turn interprets the signal. Connelly, Certo, Ireland and Reutzel (2011) opine that what is being signalled to the receiver by the signaller is an “underlying, unobservable ability of the signaller to fulfil the needs or demands of an outsider observing the signal” (p. 43). This unobservable ability is referred to as quality. For example, Ross (1973) argues that the ability of a firm to generate future cash streams can be signalled by the firm’s financial structure and managerial incentives. Similarly, Zhang and Wiersema (2009) claim that the unobservable quality of a firm is signalled to potential investors through the firm’s financial statements.

A salient characteristic of the signaller is that they are insiders that are privileged with information that is not ordinarily available to outsiders. Receivers, on the other hand, are outsiders that would benefit from any piece of information released by the signaller. Connelly et al. (2011) argue that both the signaller and the receiver benefit from the signalling. Furthermore, the receiver must be interested in and watch out for the signals being sent by the signaller for the signalling process to work.

In the case of Nigeria, this study conceptualises the Nigerian Government, represented by the Financial Reporting Council of Nigeria (FRCN), as the signaller. Through the adoption of high-quality accounting standards (IFRS) and the enforcement of accounting standards, the FRCN sends signals of better financial reporting to the receivers (i.e., both internal and external investors). Following various accounting manipulations that culminated into the Nigerian stock market crash and other associated capital market problems, these signals are important for rejuvenating investors' interests in the Nigerian capital market. Nigeria is Africa's largest economy and has been enjoying investors' (receivers') attention, but this was hampered by the aforementioned problems. Thus, the adoption of IFRS and enforcement of standards is expected to reduce information asymmetry through increased disclosures embedded in IFRS and an increase in the level of trust (or financial statements integrity) through enforcement of standards. The FRCN builds the trust by publicising its monitoring and enforcement procedures on its website and various documents, as well as publicising sanctions levied on individual companies. The Nigerian government stands to benefit from increased investments, while receivers benefit from increased portfolio of shares and returns, and higher liquidity that is hinged on more trusted information. Figure 4.2 shows how the adoption of IFRS and the FRCN's enforcement procedures affect market liquidity in Nigeria.

Figure 4.2 Signalling through IFRS adoption and enforcement in Nigeria

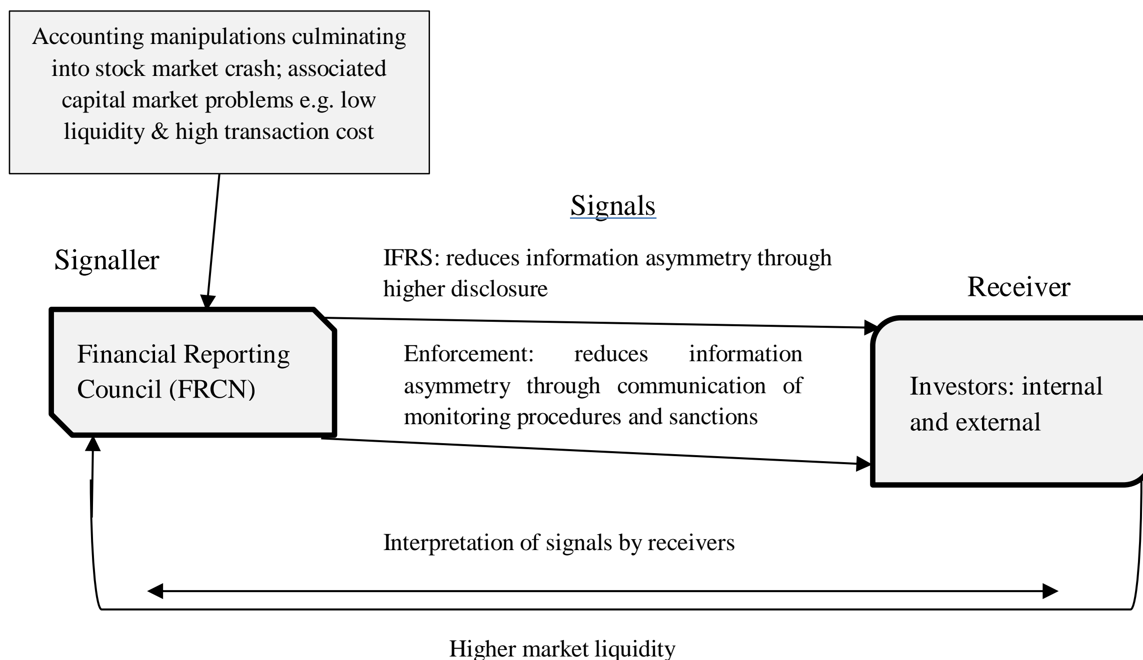


Figure 4.2 shows the various concepts of signalling theory put together within the context of Nigeria. The FRCN mandates the adoption of IFRS and enforces accounting standards[46]. IFRS reduces information asymmetry through more disclosures, while enforcement reduces information asymmetry through publication of sanctions and enforcement procedures, which reassures investors of the higher quality of Nigerian listed companies' financial statements. Given these, the investors' (potential and current) suspicion of sellers holding private information will reduce, which leads to lower bid-ask spread and consequently, higher liquidity.

4.6.3.1 IFRS, FRCN, and information asymmetry

The argument in this study is that IFRS adoption reduces information asymmetry through its requirement of higher disclosures than the Nigerian SAS. Similarly, the establishment of the FRCN improves the trust in the financial reports of Nigerian listed firms by publishing financial reporting monitoring procedures and sanctioning of erring companies. These two mechanisms are expected to lead to a reduction in information asymmetry. To understand whether this reduction in information asymmetry is perceived by stakeholders, two financial analysts were contacted. The first granted an oral interview, while the second gave the researcher a write-up on the issue. The first interviewee (interviewee 1) has more than 7 years' experience as the head of securities dealing in a firm that has been in existence since 1993 in Nigeria. The second interviewee (interviewee 2) has more than 18 years of experience in financial market and is currently the CEO of a stock broking firm that has been in existence since 1994 in Nigeria.

Interviewee 2 describes the situation prior to IFRS adoption and how IFRS ameliorated it as follows:

> "Before the adoption of IFRS, there used to be much dysfunction in asset and liability coordinates, which otherwise led to bubble creation and ultimately the crash of the market in 2008. We saw a situation whereby banks were carrying assets in their books that had become toxic and the majority of the banks had almost become illiquid. The CBN (Central Bank of Nigeria) had to open a discount window (Expanded Discount Window) in order to enable the affected banks meet their liquidity needs. The bubble got to a worrisome level that the survival of the banks became entirely dependent on the discount window. Such that when the window was closed, the banks could no longer meet their obligations to their depositors, and immediately the share price of the affected banks began to plummet. Since the adoption of IFRS, it has become almost impossible for such assets to be hidden

[46] The FRCN was not created to solely enforce IFRS. It did enforce the Statement of Accounting Standards issued by NASB prior to enforcing IFRS. More so they ensure that financial statements have fewer errors.

> without being noticed. Now the red flag is seen ahead of time and hardly will investors be caught unawares".

In this regard, IFRS ensures more disclosures that lay bare any toxic asset for all financial statements users to see. Thus, it lowers information asymmetry that was the obvious problem of the Nigerian SAS.

Investors generally believe IFRS to be of better quality than the Nigerian SAS and after suffering loss of wealth, following the 2008 market crash, the adoption of IFRS has restored their confidence. There are obvious requirements through which IFRS is able to achieve this, as explained by the interviewees:

> "Since the adoption of the IFRS for companies quoted on the NSE, there has been a measured improvement in restoration of investors' confidence after the crash of the market in 2008. The market suffered a great deal not particularly because of overpriced equities but more because investors believed the financial statements of the quoted companies especially the banks, could no more be trusted. The figures stated in most of the submitted financial reports were at variance with the actual and as such, investors believed they had been short-changed with the resulting erosion of value. The provision in IFRS for retention of presentation and classification of subsequent reports could have come to the rescue of investors, if it had been the accounting standard prior to the crash of the market. This would have afforded a situation whereby comparisons will continuously be made and the gap or inconsistency would have come to light before much damage was done" (interviewee 2).

> "For example, impairment loss under IFRS reduces the companies' profit which affects the analysts' forecast of the profit of the companies. This affects investors' sentiment and the bid and ask price. Initially firms were not taking into account impairment. It was the enforcement of IFRS that made Nigerian firms to take into account impairment in their books" (interviewee 1).

The timely presentation of financial statements and its consistencies facilitated by the FRCN is also perceived positively by the stock market, which has translated to lower information asymmetry. One of the interviewees puts it as follows:

> "When you introduce a regulatory body, it gives investors, confidence in the economy. The crash in 2008 was as a result of the fact that our regulatory bodies failed in their duties and responsibilities then. We had a situation where companies that were not existing were being traded on the Nigerian Stock Exchange. For example, the FRCN suspended the chairman of Stanbic IBTC and 3 other directors because their accounting reports did not comply with IFRS and they were misreporting by concealing vital and material expenses as professional expenses

paid to their parent body in South Africa. FRCN gave directives that the reports should be withdrawn from 2013 to 2014. This issue gave investors and market participants more confidence that whatever is being reported is the actual performance of the business" (interviewee 1).

Summing up, the above interviews provide anecdotal evidence that the adoption of IFRS and the establishment of the FRCN have the potential to increase market liquidity by reducing information asymmetry in Nigeria.

Figure 4.3 Effective Date of Enforcement

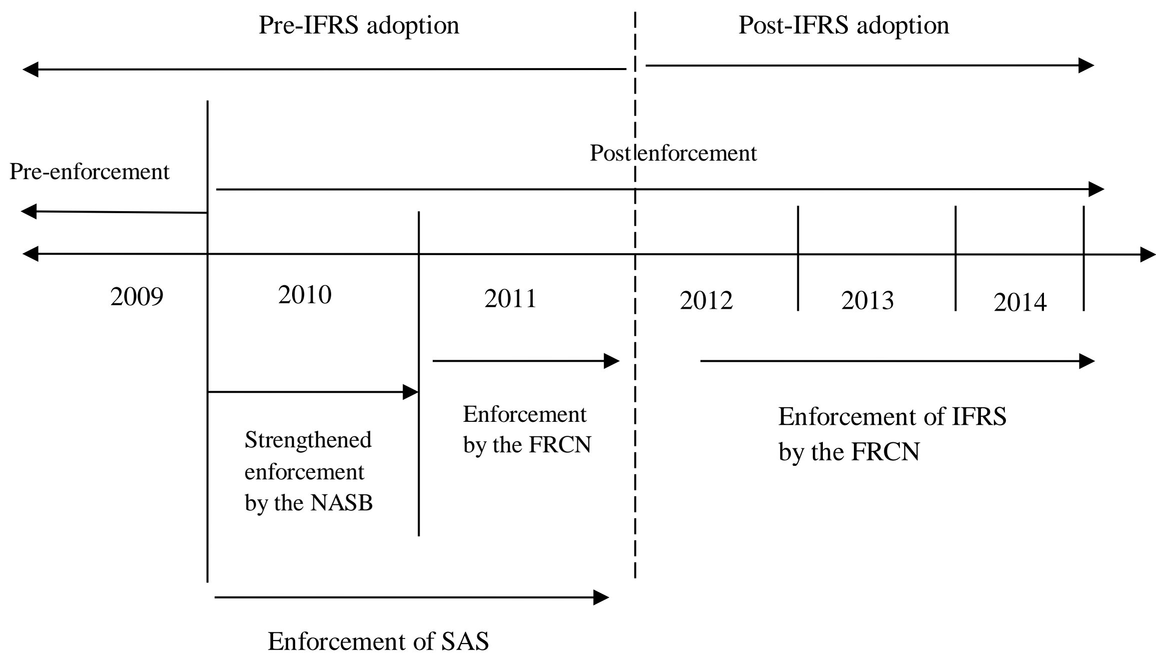


Figure 4.3 shows the enforcement period for both the SAS and IFRS. Although, the NASB strengthened its enforcement in 2010 (ROSC, 2011), this study contends that the market becomes aware of the efficiency of the NASB following the reorganization of the NASB into the FRCN with more powers and resources in 2011 (ROSC, 2011). Although the enforcement in 2010 will reinforce the enforcement in 2011, the FRCN will be more thorough in its enforcement in 2011 due to the 'attention-based view'[47] (Marra and Mazzola, 2014) and will make this known to the market via publicity of sanctions against erring firms. The FRCN will concentrate its attention towards improving the credibility of financial reports in its first year for two main reasons. Firstly, improving the credibility of the financial reports is the sole reason for reorganizing the NASB into the

[47] The attention-based view argues that the monitoring of accounting processes is based on some specific contexts (in this case, the reorganisation of the NASB into FRCN for effectiveness), which motivates the regulatory institution to enforce accounting rules and standards.

FRCN. Secondly, the procedures it takes in its first year determines how seriously the Nigerian firms would take it. Notwithstanding these arguments, a sensitivity analysis of the effective date of enforcement is conducted in section 4.9

4.6.4 Market Liquidity

Market liquidity is a market situation whereby transactions rapidly take place with insignificant impact on prices (Borio, 2000). In the words of Elliot (2015), market liquidity is the ease with which an asset is sold or bought in a timely manner, and the associated cost of sale (including accepting a lower price to have a buyer in a reasonable time). Market liquidity has four dimensions, namely tightness, depth, immediacy, and resiliency. Tightness refers to the difference between the ask price and the bid price (i.e., the bid-ask-spread). Depth refers to the volume of transactions a market can absorb without changes in prices. Immediacy implies the speed of execution of large orders, while resiliency refers to the ease with which prices return to normalcy after a temporary disturbance (Borio, 2000). Market liquidity is an important concept for efficient functioning of the capital market (Nikolaou, 2009). In fact, the recent 2008 financial crisis is linked to a fall in the resilience of capital markets (Amihud and Mendelson, 2012; Anderson, Webber, Noss, Beale and Crowley-Reidy, 2015).

Liquidity costs are divided into two parts, namely direct trading cost and price-impact cost (Amihud and Mendelson, 2012). Direct trading costs are normal costs associated with executing a transaction at the market. They include brokerage commission, taxes, and exchange fees. Price-impact costs are the premium and discounts a buyer pays or seller gives to buy and sell securities, respectively, and the inventory risks. When a buyer has a private information about the likelihood of a future price increase of a stock, they tend to buy more to make future profits. The seller, on noticing the buying pressure, interprets this as conveying a private positive information and will only sell the stock at a higher price (premium). Equally, when buyers notice selling pressure, they interpret this as conveying a private negative information and will only buy at a discount. Inventory risk is the risk that the price of a stock falls while a seller holds the stock in anticipation of a buyer.

Market illiquidity has many consequences. Illiquidity can discourage participation in financial markets such that the market becomes ineffective. More so, illiquidity can increase share issuance premium, as higher transaction costs are factored in, which in extreme cases, can deter some companies from raising finance from the capital market

(Anderson et al., 2015). When securities are used as collateral for bank loans, illiquidity can spur bank insolvency and further exacerbate contagion[48].

4.6.4.1 Consequences of market liquidity

The market liquidity of a firm has many consequences for the decision making of the firm. These consequences, as found in the literature, are considered below.

Ellul and Pagano (2006) hypothesised that illiquidity results in under-pricing of IPOs, as investors are concerned about 'after-market illiquidity' (p. 381) resulting from information asymmetry about the future value of the stock and its fundamental risk. They confirmed this hypothesis based on an observation of 337 IPOs in the UK from 1998 to 2000.

Higher liquidity encourages managers to opt for equity financing rather than debt financing as equity financing is cheaper at that moment. This, however, alters a firm's capital structure. Based on 5,000 firm-year observations, Frieder and Martell (2006) find that an increase in leverage is associated with a decrease in market liquidity and vice versa. In a similar vein, Lipson and Mortal (2009), based on 46,685 firm-year observations, find a negative relationship between leverage and stock market liquidity. Furthermore, in Thailand, Udomsirikul, Jumreorvong and Jiraporn (2011) find a negative relationship between leverage and stock market liquidity based on a sample of 707 firms. Nadarajah, Ali, Liu and Haung (2016) equally support these findings based on 9,855 firm-year observations from 2001 to 2013 in Australia.

Brockman, Howe and Mortal (2008) argue, in line with what they call 'liquidity hypothesis of repurchases', that the level of a firm's market liquidity determines its pay-out policy (i.e., dividend or share repurchase). Stock prices decreases if market liquidity drops. A fall in market liquidity is caused by share repurchase decision, as trading activity of share repurchase often widens bid-ask spread. Based on 17,012 observations they conclude that firms with relatively higher market liquidity repurchase their stock, while firms with lower market liquidity pay dividend. On the contrary, Jiang, Ma and Shi (2017) argue that opacity of information environment creates an avenue for insiders to make private gains without being detected. However, higher transparency (i.e., higher liquidity) obviates the likelihood of insiders' expropriation, as the risk of being caught and legal action is higher. Consequently, net benefits of dividend payment are higher for higher liquidity. Based on 19,074 firm-year observations from 2000 to 2014 they find a positive relationship between market liquidity and dividend pay-out.

[48]Contagion is the spread of financial crisis or boom across different geographic regions.

Fang, Noe and Tice (2009) find that a firm's stock liquidity is positively related to the firm's value based on 8,290 firm-year observations. Cheung, Chung and Fung (2015) buttress this finding by examining the impact of market liquidity on firm value in the Real Estate and Investment Trust (REIT) industry. They find that stock liquidity increases firm value based on 1,229 firm-year observations from 1994 to 2006.

Fang, Tian and Tice (2014) theorise that high market liquidity can invite hostile takeover. In a similar vein, lower trading cost (i.e., higher liquidity) facilitates easy exit and entry of institutional investors, which may trigger hostile takeover. Managers try to prevent this by focusing on short-term performance measures, through discountenancing innovation, to prevent temporary undervaluation of their firm's stock. Using 29,469 firm-year observations, from 1994 to 2005, they conclude that higher market liquidity reduces firm innovation. Based on a similar theoretical stance with Fang et al. (2014), Huang, Lao and McPhee (2016) posit that stock market liquidity encourages accrual manipulation, as managers try to prevent hostile takeover by focusing on short-term performance measures, through accrual manipulations, to prevent temporary undervaluation of their firm's stock. Using 47,533 observations from 1993 to 2013, they find that higher stock market liquidity increases accrual manipulation.

Liquidity is also important in mergers and acquisition decisions. Massa and Xu (2013) examine 534,165 mergers and acquisition transactions of US firms from 1987 to 2007 and reach the conclusion that the stock of an acquirer, acquiring a liquid target, becomes more liquid and secondly, liquid targets earn higher premium from their acquirer.

4.6.4.2 Factors Affecting Stock Market Liquidity

(i) Information (non) disclosure

Boone and Raman (2001) investigate the effect of off-balance sheet research and development (R&D) expenditure on stock market liquidity, arguing that the non-disclosure of the R&D expenditure increases information asymmetry. Based on a sample of 158 and 487 R&D-intensive and non-R&D-intensive firms respectively, they find that non-recording of R&D expenditure is associated with lower stock market liquidity.

Cao, Field and Hanka (2004) examine the argument that insider trading impairs market liquidity by increasing information asymmetry. Using 1,497 around IPOs lockup expiration from 1995 to 1999, they find, in contrast to the theory, a positive association between insider trading and stock market liquidity.

Brown and Hillegeist (2007) find a negative relationship between accounting information quality and information asymmetry, which translates to a higher market liquidity. Similarly, Laidroo (2011) examines the impact of disclosure quality of public announcements on market liquidity in the Baltics. Based on 260 firm-year observations of 52 companies, he finds a positive relationship between public announcements' disclosure quality and stock market liquidity.

In 2010 and 2011, the Eurozone banking supervisors conducted a stress test for major European banks and published the results alongside their credit risk exposure. Bischof and Daske (2013) argue that this mandatory disclosure triggered subsequent voluntary disclosure by the banks, which has implications for the banks' market liquidity. Based on 3,075 disclosure reports, they find an increase in market liquidity of the banks that follow the mandatory disclosure with voluntary disclosure, but a decrease in market liquidity for firms that did not follow up with voluntary disclosure.

Blankespoor, Miller and White (2013) argue that not all relevant investors get necessary information about firms through traditional means, for example the press. Thus, they examine the impact of 'firm-initiated news' disseminated through twitter on stock market liquidity, as this reduces information asymmetry. Using 4,516 observations of 85 IT firms, they find a positive association between dissemination of firm-initiated news on twitter and stock market liquidity.

Balakrishnan, Billings, Kelly and Ljungqvist (2014) argue that managers voluntarily release information (earnings guidance) above the mandated level to reduce information asymmetry between institutional investors and retail investors, which improves market liquidity. Based on 2,263 firm-fiscal quarter observations, they find an increase in market liquidity following voluntary release of information.

Elshandidy and Neri (2015) examine the impact of corporate governance on risk disclosure of firms in the UK and Italy and the consequence of such disclosure on market liquidity of firms. Using 1,890 firm-year, they find that Italian firms with strong corporate governance that voluntarily disclose risk information have higher market liquidity.

Bouzouita, Gajewski and Gresse (2015) hypothesise that the positive correlation between IPO under-pricing and stock market liquidity is related to increased production of information, which is informed by more analyst following firms after under-priced IPO. They confirmed this hypothesis using a sample of 326 IPOs of French companies from 1995-2008.

Akrout and Ben Othman (2016), using signalling theory, argue that increased disclosure through environmental disclosure by firms in the Arab MENA region reduces

information asymmetry and consequently increases market liquidity. Using 276 firm-year observations from 2010 to 2012, they find a positive relationship between environmental disclosure and stock market liquidity. In the US, Schoenfeld (2017) examines the effect of voluntary disclosure on market liquidity. Based on 368 S&P 500 firms, they find a positive relationship between voluntary disclosure and stock market liquidity.

Cashman, Harrison, Seiler and Sheng (2016) posit that geopolitical risk worsens information uncertainty for real estate firms with cross-border activities in the Asia-Pacific region which create financing problems as investors are unable to really evaluate the firms. Using a sample of 184 real estate firms, they find support for their viewpoint.

(ii) Share issue privatization

Privatisation of state-owned enterprises through their listing on stock exchanges increases the depth of the market, as investors have more opportunities to diversify. Similarly, when such privatisation is accompanied by cross-country listings, depth also increases as a result of increase in both domestic and foreign investors' participation. Consequently, stock market liquidity increases. Based on this theorisation, Bortolotti, De Jong, Nicodano and Schindele (2007) examine the impact of share issue privatisation on stock market liquidity in 19 countries from 1985 to 2002, they find a positive association between stock market liquidity and share issue privatisation.

(iii) Asset liquidity

Gopalan, Kadan and Pevzner (2012) assess the relationship between asset liquidity and market liquidity of a firm. They argue that firms with less growth potentials and firms with financial constraints have higher market liquidity, as they are unlikely to invest their liquid assets. Based on this argument, they examine four measures of liquidity to arrive at the conclusion that asset liquidity has a positive relationship with market liquidity for firms with less growth potentials and firms with financial constraints. Similarly, Charoenwong, Chong and Yang (2014) empirically test competing explanations of the relationship between asset liquidity and stock liquidity. The utilisation uncertainty hypothesis holds that higher cash holding translates to more future investment and hence, a higher uncertainty about the future value of assets. Moreover, the excess cash may be invested in negative NPV investments, which leads to lower liquidity. On the contrary valuation hypothesis argues that liquid assets are much easier to value relative to nonliquid assets, thus, firms with more liquid assets exhibit lower valuation uncertainty. Based on 91,251 firm-year observations, they find asset liquidity to be positively related to stock market liquidity. Furthermore, this relationship gets weaker with the adoption of

IFRS, as improved information environment reduces the reliance on the relationship between asset and stock market liquidity.

(iv) Corporate governance

Effective corporate governance mechanisms reduce information asymmetry between managers and investors, as more checks against opportunistic information manipulations by managers are in place, consequently, stock market liquidity increases. Based on this argument, Ali, Liu and Su (2016) find a positive relationship between corporate governance quality (measured by corporate governance ranking and rating in Howarth report) and stock market liquidity in Australia using 1,582 firm-years.

Attig, Fong, Gadhoum and Lang (2006) argue that the higher the deviation between firm ownership and control, the higher the information asymmetry, which consequently results in lower stock liquidity. Based on a sample of 1,031 Canadian firms, they find that higher ownership-control divergence leads to lower market liquidity. Chu, Liu and Tian (2015) extend this line of argument. Based on 1,718 firm-year observations of 345 Chinese firms, they find the negative relationship between ownership-control divergence and stock market liquidity to be accentuated by state ownership and lower shareholder protection. On the contrary, Cueto, Lorne and Switzer (2013) find ownership concentration to have a negative effect on stock market liquidity among Brazilian and Chilean firms. However, they find cross-listing in the US stock market and threat from outside takeovers to have a positive effect on market liquidity based on a sample of 72 firms.

Zheng and Li (2008) find that under-pricing of IPO leads to ownership dispersion which subsequently leads to higher market liquidity. Using 1,179 sample firms, they find a positive relationship between under-pricing of IPO and stock market liquidity.

Agudelo (2010) investigate the impact of foreign investors' entry into six Asian and Johannesburg stock exchanges on market liquidity. Based on an observation of 359 stocks, they find a positive relationship between foreign investor entry and stock market liquidity.

Brockman and Oslen (2013) posit that the issue of warrants has a significant effect in altering the ownership structure of firms, which consequently affect firms' market liquidity. They analyse 164 warrant-issuing US firms and arrive at the conclusion that the exercise of warrant reduces firms' ownership concentration, which increases market liquidity.

Sakawa, Ubukata and Watanabel (2014) argue that the control of a firm by a main bank, which is the largest lender to and shareholder of the firm reduces, information asymmetry and consequently increases stock market liquidity. Based on a sample of 819 Japanese firms, they find a positive relationship between stock market liquidity and main bank-controlled board. Furthermore, they find a positive relationship between foreign shareholding and stock market liquidity.

Syamala, Chauhan and Wadhwa (2014) investigate the impact of institutional ownership on stock market liquidity in India. Based on a sample of 800 firms from 2001 to 2012, they find a significantly positive relationship between institutional ownership and stock market liquidity. Similarly, Tang and Wang (2011) find a positive relationship between corporate governance and stock market liquidity based on a sample of 1,343 Chinese firms. Furthermore, Bar-Yosef and Prencipe (2013) find a negative relationship between high non-institutional ownership and market liquidity, but a positive relationship between board independence and separation of board chairman and CEO role and market liquidity based on 5,282 firm-months.

Jiang, Kim and Kuvvet (2014) posit that better corporate governance can reduce ambiguity or uncertainty (i.e., a situation when an outcome and the distribution of an outcome are unknown) and a reduction in ambiguity leads to higher market liquidity. They confirm this hypothesis through an examination of 37,528 observations.

Shi, Dempsey, Duong and Kalev (2015) compare the stock market liquidity of Hong-Kong (common law) and China (civil law) to establish whether any difference is due to the level of investor protection in the two countries. They find that Hong-Kong companies are more liquid than Chinese companies using a sample of 26 firms and 72 firms from Hong-Kong and China respectively. They associate this finding to the difference in the level of investor protection in the two countries.

Umar and Sun (2016) examine the relationship between stock market liquidity and leverage of banks. They find that for large banks, the relationship between market liquidity and leverage is positive, while for small banks the relationship is negative, based on a sample of 188 banks in BRICS[49] countries.

Farber, Huang and Mauldin (2016) investigate the impact of audit committee accounting expertise on stock market liquidity. Based on 2,342 firm-year observations of 460 firms randomly selected from S&P 1500, they find a positive relationship between accounting expertise of audit committee and stock market liquidity.

[49] Brazil, Russia, India, China and South Africa.

(v) Dividend pay-out policy

The 'liquidity hypothesis of dividends' (Banerjee, Gatchev and Spindt, 2007) argues, in contrast to Miller and Modigliani's dividend irrelevance, that trading in financial markets is not friction-free but has associated costs. Hence, investors satisfy their liquidity needs at minimal or no cost by giving preference to cash dividend-paying stock. Using a sample of NYSE and AMEX firms from 1963 to 2003, they find a negative relationship between cash dividends payment and market liquidity.

(vi) Internationalisation

Levine and Schmukler (2006) investigate the impact of firms raising capital and trading in foreign markets on stock market liquidity of firms in their domestic market. Using a sample of 2,900 firms across 45 developing countries, they find a negative relationship between the 'foreign' trading activities of firms raising capital abroad and liquidity of their domestic market. They explain this result as arising from the concentration of the activities of the firms raising capital abroad in international markets rather than their domestic markets.

(vii) Investors' sentiment and heterogeneity

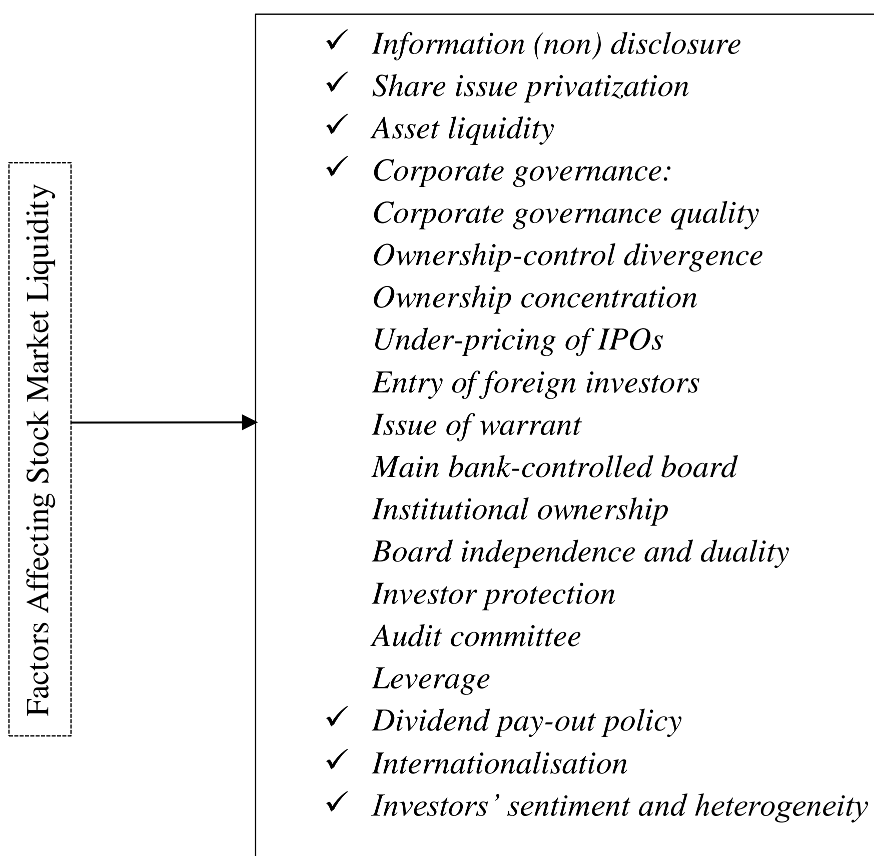
Liu (2015) confirms that investors' optimism about future performance of the stock market (i.e., investors' sentiment) is positively related to market liquidity. The theoretical basis of this stems from the notion that higher investors' sentiment increases noise trading[50], which ultimately increases market liquidity. Following this notion, Narasimhan and Kalra (2014) find a positive relationship between derivative trading and the liquidity of underlying stock of 60 stocks on the Bombay Stock Exchange.

Ng, Wu, Yu and Zhang (2016) examine the impact of foreign investment heterogeneity on stock market liquidity. Based on 27,828 firm-year observations, they find a negative relationship between foreign direct investment (FDI) and stock market liquidity, while a positive relationship between foreign portfolio ownership and market liquidity was found. The theoretical argument holds that FDI allows foreign investors to own and control the firm, which allows them to gain private information and hence increases information asymmetry. Foreign portfolio investment, on the other hand, increases a firm's shareholder base but not control. Consequently, market liquidity is

[50] Noise traders are market participants that buy and sell stock based on public market information without fundamental analysis of the company whose stock they are buying.

improved through increased trading volume. Figure 4.4 summarises the factors that affect stock market liquidity based on the literature.

Figure 4.4 Factors Affecting Stock Market Liquidity



4.6.5 Review of Empirical Evidence and Development of Hypotheses

4.6.5.1 IFRS adoption and market liquidity

IFRS adoption has implications for several capital market outcomes, including cost of capital, market liquidity, and value relevance of accounting numbers. Whilst these three are the most common, research into the impact of IFRS adoption on other capital market outcomes aside these three has also been conducted. However, the scope of this study is restricted to the impact of IFRS on market liquidity, as already discussed in section 4.5. Empirical findings on the impact of IFRS on market liquidity in prior studies are discussed below.

Table 4.1 presents a summary of the literature on the link between IFRS adoption and market liquidity.

Table 4.1 Summary of Literature on the Effects of IFRS on Market Liquidity

Author (year)	Context	Period	Effect of IFRS on Market Liquidity
IFRS increases market liquidity			
Lang and Mafett (2011)	37 countries	1996 – 2008	IFRS increases market liquidity.
Katselas et al. (2016)	16 countries	1998 – 2008	IFRS increases market liquidity.
Neel (2017)	23 countries	2001 – 2008	IFRS increases market liquidity
Leuz and Verrecchia (2000)	Germany	1997 – 1998	IFRS increases market liquidity.
Mohd (2005)	US	1983 – 1988	SFAS 86 increases market liquidity
Frino et al. (2013)	Italy	2004 – 2005	IFRS increases market liquidity.
IFRS does not increase market liquidity			
Christensen et al. (2013)	23 countries	2001 – 2009	IFRS does not significantly increase market liquidity.
Daske et al. (2013)	30 countries	1990 – 2005	IFRS significantly increase market liquidity for serious adopters only.
Franzen and Weißenberger (2018)	Germany	2006 – 2008	IFRS 8 does not significantly increase market liquidity.

Leuz and Verrecchia (2000) examine the impact of IAS on bid-ask spread in Germany. They argue that IAS adoption in Germany increases disclosure relative to the German GAAP and hence, reduces information asymmetry. Using a sample of 102 German firms, they conclude that IAS adoption increases market liquidity in Germany.

In the US, Mohd (2005) examines the impact of a change in accounting treatment of R&D from immediate expensing to an alternative capitalisation option on information asymmetry of software firms. Based on 253 firm-year observations, he finds lower information asymmetry following the introduction of SFAS[51] 86. Furthermore, a significantly lower information asymmetry is associated with firms capitalizing R&D compared to firms expensing it.

[51] Statement of Financial Accounting Standards issued by the Financial Accounting Standards Board (FASB), US.

Frino, Palumbo, Capalbo, Gerace and Mollica (2013) assess the improvement in market liquidity in Italy following the adoption of IFRS. Using a sample of 222 observations, they find a decrease in bid-ask spread for both large trades and small trades.

Lang and Maffett (2011) document a positive relationship between transparency (measured by high-quality auditors, high-quality accounting standards, lower earnings management, more analyst coverage, and less analysts forecast error) and stock market liquidity across 37 countries, based on 507,822 firm-month observations.

Katselas, Sviatoslav and Rosov (2016) investigate the impact of IFRS adoption on transparency through a reduction in the cost of adverse selection (proxied with the bid ask-spread). They examine 1,310 firms in 16 countries with 12,246 firm-month observations and conclude that cost of adverse selection reduced following IFRS adoption for voluntary adopters, but not for countries with high-quality local standard. Furthermore, they observe that reduction in the cost of adverse selection is dependent on strong enforcement in individual countries.

Neel (2017) argues that the comparability of financial statements arising from IFRS adoption is positively related to market liquidity of firms. On this note, he explores a sample of 1,861 first-time adopters across 23 countries to reach a conclusion that financial statement comparability increases market liquidity following IFRS adoption.

On the contrary, Christensen et al. (2013) examine the impact of mandatory IFRS adoption on market liquidity in 35 countries. Based on 613,752 firm-quarter observations, they find that mandatory IFRS adoption has little effect on market liquidity, even when a country has strong legal enforcement. Similarly, Daske et al. (2013), based on 69,528 firm years across 30 countries, find that IFRS adoption has a positive effect only for serious adopters (i.e., firms that adopt IFRS as part of a strategy to reinforce their commitment towards transparency). Furthermore, Franzen and Weißenberger (2018) investigate the impact of the adoption of IFRS 8 (segment reporting) on market liquidity in Germany. Based on 650 firm-year observations, they conclude that the adoption of IFRS 8 does not significantly improve market liquidity in Germany.

Armstrong, Barth, Jagolinzer and Riedl (2010) examine the reaction of investors across European markets around 16 events surrounding IFRS adoption. They argue that the investors' reaction could be negative or positive depending on their perception of IFRS. For example, they argue that investors may react negatively to IFRS adoption if they perceive the cost to be more than its benefits, or the differences in enforcement of compliance may facilitate managerial opportunistic behaviour, or that IFRS does not capture cultural differences. On the other hand, investors may react positively if they

expect higher information quality following IFRS adoption. Based on "three-day value-weighted market-adjusted returns" (p. 41) for 1,956 firms from 2002 to 2005, they find a positive investors' reaction for companies with both lower and higher quality pre-adoption information but a negative investors' reaction for code law countries.

Based on Armstrong et al.'s (2010) analysis, it is predicted that IFRS adoption will increase market liquidity in Nigeria, since IFRS was adopted in Nigeria to particularly improve the financial reporting integrity of the country.

H_1*: *IFRS adoption increases market liquidity of Nigerian listed companies

4.6.5.2 Enforcement and market liquidity

Kyriacou and Mase (2000) investigate the impact of a change to a rolling settlement system from an account-based settlement system in the UK stock exchange on market liquidity. They suggest that such change increases transaction cost of margin trading[52], hence, leading to the exit of margin traders. Based on a sample of 51 firms, they find a positive relationship between the rolling settlement system and market liquidity.

Ernstberger et al. (2012) examine the impact of accounting reform geared towards ensuring accurate application of accounting standards on stock market liquidity in Germany. Based on 1,464 observations, they find a higher market liquidity following the reform. Furthermore, they find this result to be more pronounced among firms with lower internal enforcement mechanisms. Christensen et al. (2016) investigate the effect of regulatory changes in the European Union on stock market liquidity. They argue that the regulatory changes are geared towards increasing transparency and reducing market abuse, which reduces information asymmetry and consequently improves stock liquidity. Using 112,260 firm-quarter observations, they find a significantly positive relationship between regulatory changes and stock market liquidity.

Hedge and McDermott (2004) examine the effect of the introduction of DIAMONDS (index-tracking stock for Dow Jones Industrial Average 30 index) and Q's (index-tracking stock for NASDAQ 100 index) on market liquidity. Based on a total sample of 41.2 million trades and 18.2 million quotes, they find a positive relationship between the introduction of the index-tracking stocks and stock market liquidity. Cumming, Johan and Li (2011) examine the impact of the differences in details of exchanges' rules on market manipulation, broker-agency conflict and insider trading across 42 stock exchanges on stock market liquidity. Arguing that the extent of detail

[52] Margin trading involves borrowing from a stock broker to buy stock. Such buyer opens a margin account with an initial deposit (i.e. initial margin) with the broker.

affects investors' confidence and consequently market liquidity, they find a negative relationship between the extent of detail and bid-ask spread.

Heflin, Shaw and Wild (2005) examine the impact of financial analysts' rating of disclosure policies of US firms on market liquidity of the firms. Using 1,374 firm-year observations, they observe that higher ratings are associated with increase in market liquidity of the firms. Jain, Kim and Rezaee (2008) argue that the introduction of SOX improves financial statement quality. Therefore, information quality increases and this consequently improves stock market liquidity. Based on a sample of 71,755,401 observations of 610 US firms, they find a positive relationship between SOX introduction and stock market liquidity. Shroff, Sun, White and Zhang (2013) examine the effect of voluntary disclosure by US firms through management forecasts and press releases following Securities Offering Reform[53] on market liquidity. Based on a sample of 792 seasoned equity offerings, they find a positive relationship between SOR and market liquidity. Qu, Wang, Qin, Zhao and Wang (2017) examine the impact of US SEC's regulation of fair disclosure of corporate information disclosed via social media. Based on a sample of 228 firms, they find a significantly positive relationship between the regulation and stock market liquidity.

In China, Lee and Wong (2012) find a positive relationship between financial liberalisation (including banking deregulation and financial markets reform) and stock market liquidity.

Evidence from prior studies above is unanimous on the positive relationship between enforcement or regulation and stock market liquidity. In Nigeria, it is expected that the establishment of the FRCN will improve market liquidity based on the interview with the financial analysts (see section 4). Thus, the second hypothesis is stated as follows:

> ***H_2:*** *The establishment of the Financial Reporting Council of Nigeria increases the stock market liquidity of the Nigerian listed firms.*

[53] The reform restricts gun-jumping. Gun-jumping involves soliciting for IPOs prior to approval by a securities exchange commission or trading on securities based on information not yet made public.

Table 4.2 Summary of Literature on the Effects of Enforcement on Market Liquidity

Author (year)	Context	Type of Enforcement	Period	Effect of IFRS on Market Liquidity
Hedge and McDermott (2004)	New York Stock Exchange's Transactions	DIAMONDS and Q's	1998 – 1999	Enforcement increases market liquidity.
Cumming et al. (2011)	42 stock exchanges of World Federation of Exchanges	Differences in stock exchanges' rules	2006 – 2008	Enforcement increases market liquidity.
Kyriacou and Mase (2000)	UK	Change to a rolling settlement system from an account-based settlement system	May – Sept. 1994	Enforcement increases market liquidity.
Heflin et al. (2005)	US	Financial analysts' rating of disclosure policy	1988 – 1992	Analysts' rating increases market liquidity.
Jain et al. (2008)	US	SOX	May – Aug. 2002	SOX increases market liquidity.
Ernstberger and Stich (2012)	Germany	Accounting reform	2003 – 2006	Enforcement increases market liquidity.
Lee and Wong (2012)	China	Financial liberalisation	2002 – 2007	Financial liberalisation increases market liquidity
Shroff et al. (2013)	US	Securities Offering Reform (SOR)	2003 – 2008	SOR increases market liquidity
Christensen et al. (2016)	EU	Regulatory changes in stock markets.	2001 – 2011	Enforcement increases market liquidity.
Qu et al. (2017)	US	SEC's regulation on fair disclosure	Jan. – July 2013	Regulation increases market liquidity

4.8 Research Method

4.8.1 Research Design

This study employs a longitudinal research design. Longitudinal research design involves a study of the same sample of objects over a period of time (Bryman, 2012). Longitudinal research design has two variants, namely panel design and cohort design. For a panel design, randomly selected subjects are studied at different points in time. In a cohort design, on the other hand, a study of all or a sample of subjects who share a common characteristic is conducted at different points in time. This study uses a cohort longitudinal design as the population of study are firms listed on the Nigerian Stock Exchange (NSE). Hence, they all share a similar characteristic by being listed on the NSE and thus, are subject to similar rules and regulations.

4.8.2 Sampling

The study uses secondary data in testing the two hypotheses developed. The data were hand collected from an unstructured archive. An unstructured archive is a collection of data (for example, in documents or databases) that is not in a way that is readily suitable for the researcher's intended purpose (Bloomfield, Nelson and Soltes, 2016). Hand collection is the sorting and extraction of the data from the unstructured archive. Data for this study were gathered from African Markets[54] and the Nigerian Stock Exchange databases. Upon collection of the data, the data were processed to obtain both the dependent and independent variables.

Sampling frame is a representation of the population from which the samples are selected (Black, 2010). A frame can be a list, a directory or a map that captures the elements of the population. The sampling frame for this study is the list of listed firms printed from the NSE website. The list as at 2016 contains 179 firms. The sample period is 2009 – 2014. The sampling procedure adopted in selecting the 76 non-financial firms is depicted in Table 4.3.

Table 4.3 Sampling

	Firms
Total number of firms listed as at 2016	179
Less financial services firms	(55)
Total non-financial firms	124
Number of firms without relevant data for the sample period (2009-2014)	(44)
Less outliers	(4)
Final sample	76

[54] African markets is a website that hosts financial statements of African companies and their market data.

Financial services firms are excluded from the sample because they face a different set of regulations[55] in Nigeria, which can bias the true relationship between market liquidity and accounting regulation. Out of the 124 non-financial firms, 44 firms were excluded due to missing information[56], which makes them unsuitable for analysis. Box plot was constructed for the data using IBM SPSS 22 which labels the extreme values and outliers in the data. Four of the companies had overly large values for their market liquidity in the opposite direction of the others. Hence, they were trimmed. The final sample is 76 non-financial firms.

Table 4.4 Distribution of Industry of Sampled Firms

Industry	Sample Size	Percentage
Agriculture	4	5.26
Conglomerates	5	6.58
Construction/Real Estate	4	5.26
Consumer Goods	17	22.37
Healthcare	8	10.53
ICT	4	5.26
Industrial Goods	12	15.79
Natural Resources	3	3.95
Oil and Gas	6	7.89
Services	13	17.11
Total	76	100

The distribution of the final sample of non-financial firms together with their industry is depicted in Table 4.4.

4.8.3 Market Liquidity Models (Dependent Variable)

Three proxies are adopted in this study in measuring the market liquidity of the Nigerian listed firms. These proxies are the bid-ask spread, the volume of trade and the proportion of zero daily returns. The next section considers each of these proxies.

Table 4.5 depicts the definitions and measurements of all the variables used in the market liquidity models.

[55] For example, corporate governance of banks was restructured, and a second bank consolidation was mandated by the Central Bank of Nigeria in 2009. Several mergers and acquisitions were also carried out during the sample period.
[56] Most of these firms were unlisted for the period before IFRS adoption and the establishment of the FRCN.

Table 4.5 Definition and Measurement of Variables for the Market Liquidity Models

Variables	Measurement	Source
	Dependent Variables	
BAS_{it}	*bid-ask-spread for firm i at quarter t*	Christensen et al. (2013); Bar-Yosef and Prencipe (2013); Frino et al. (2013); Katselas et al. (2016).
$Volume_{it}$	*natural logarithm of quarterly trade volume for firm i at quarter t*	Leuz and Verrecchia (2000); Bekaert et al. (2007); Chai et al. (2010); Bar-Yosef and Prencipe (2013).
$Zero_{it}$	*proportion of zero daily returns for firm i at quarter t*	Lesmond et al. (1999); Bekaert et al. (2007); Chai et al. (2010); Christensen et al. (2016).
	Independent Variables	
$IFRS_{it}$	*binary variable; 1 for periods after IFRS adoption (2012-2014) and 0 for periods before IFRS adoption (2009-2011) for firm i*	Christensen et al. (2013); Bar-Yosef and Prencipe (2013); Frino et al. (2013); Katselas et al. (2016).
Enf_{it}	*binary variable; 1 for periods following enforcement (2011 to 2014) and 0 for period before enforcement (2009-2010) for firm i*	Ernstberger and Stich (2012); Christensen et al. (2016); Hedge and McDermott (2004); Heflin et al. (2005) Jain et al. (2008); Shroff et al. (2013); Qu et al. (2017).
	Control Variables	
$Return_{it}$	*quarterly return of market index for firm i at quarter t, derived by the formula:* $ln(\frac{Rt}{Rt-1})$ *(Boyacioglu and Avci, 2010)*	Amihud and Mendelson (1986, 1989); Bhattacharya, Desai and Venkataraman, (2013); Li et al. (2011); Christensen et al. (2013); Bar-Yosef and Prencipe (2013); Frino et al. (2013); Katselas et al. (2016).
$Volatility_{it}$	*quarterly return volatility measured as the log of squared quarterly returns for firm i at quarter t (Li, Nguyen, Pham and Wei, 2011)*	
Ind_{it}	*percentage of independent directors to total directors on board for firm i at quarter t.*	Cueto et al. (2013); Bar-Yosef and Prencipe (2013).

$Maxinv_{it}$	*highest percentage of ownership held by a single individual or entity for firm i at quarter t.*	Attig et al. (2006); Cueto et al. (2013); Bar-Yosef and Prencipe (2013); Chu et al. (2015)
EPS_{it}	*earnings per share for firm i at quarter t*	Bar-Yosef and Prencipe (2013)
$Size_{it}$	*company size measured as the natural log of total assets of firm i at quarter t*	Fehle (2004); Attig et al. (2006).
Lev_{it}	*leverage for firm i at quarter t, measured as the proportion of total liabilities to total assets.*	Frino et al. (2013); Bar-Yosef and Prencipe (2013)
w_{it} $(BAS\ model)$	ε_{it} *(firm-specific error term)* + u_{it} *(idiosyncratic error term)*	Cameron and Trivedi (2009)
$IFRSmax_{it}$	*Interaction variable between IFRS and the percentage of independent directors to total directors on board for firm i at quarter t*	
$Enfmax_{it}$	*Interaction variable between enforcement and the highest percentage of ownership held by a single individual or entity for firm i at quarter t.*	
$Industry_{it}$	*industry dummy for the sampled firms*	

4.8.3.1 Quoted bid-ask spread model

The bid-ask spread is the difference between the bid (the buying price) and ask price (the offer price) of a firms' stock. The higher the bid-ask spread, the lower the liquidity of a firm and vice versa. The bid-ask spread (BAS) (quoted and effective) is considered the best measure of market liquidity (Amihud, 2002; Christensen et al., 2013). However, only the quoted BAS is used in this study because the data for calculating effective spread is not available. The BAS is calculated using the formula below:

$$BAS_{it} = \frac{(Ask\ price - Bid\ price)_{it}}{\frac{(Ask\ price + Bid\ price)}{2}} \tag{4.1}$$

The details of the BAS model for testing the effect of IFRS adoption and enforcement are given below:

$$BAS_{it} = \alpha + \delta_1 IFRS_{it} + \delta_2 Enf_{it} + \delta_3 Return_{it} + \delta_4 Volatility_{it} + \delta_5 Size_{it} + \delta_6 EPS_{it} + \delta_6 Ind_{it} + \delta_7 Maxinv_{it} + \delta_8 Lev_{it} + \delta_9 IFRSmax_{it} + \delta_{10} ENFmax_{it} + \delta_{11} Industry_{it} + w_{it} \tag{4.2}$$

The definition of variables and their measurements are presented in Table 4.5.

4.8.3.2 Volume model

As a form of robustness test, volume of trade is used to further assess the reduction in information asymmetry (Leuz and Verrecchia, 2000). Kim and Verrecchia (1994) posit

that the activities of market participants (e.g., block shareholders and financial analysts), who are capable of making informed judgements or opinions from publicly disclosed information, widens the bid-ask-spread (also see Bekaert, Harvey and Lundblad, 2007). This is because on extracting such informed judgement about a firm's performance, the demand for the stock increases and sellers would only sell at a premium, based on the buying pressure (Amihud and Mendelson, 2012). Thus, although bid-ask spread increases, informed traders would still prefer to be well-informed and trade in illiquid market, which increases volume (Kim and Verrecchia, 1994). Conversely, where informed traders are less active or few (as is likely the case in Nigeria) or where information disclosed (inside information) is rather negative about a firm's performance, bid-ask spread reduces, and volume also reduces due to reduced activities of informed traders or the consequence of negative information disclosed.

This study argues that IFRS reduces inside information in Nigeria because of its robust disclosure requirements compared to the Nigerian GAAP and the FRCN reduces inside information by compelling companies to disclose necessary information and sanctioning them when they do not. Secondly, this study contends that informed traders are less active in Nigeria. Hence, IFRS and FRCN are expected to be negatively related with trade volume.

The volume model is given below:

$$\begin{aligned} Volume_{it} = \alpha + \delta_1 IFRS_{it} + \delta_2 Enf_{it} + \delta_3 Return_{it} + \delta_4 Volatility_{it} + \delta_5 Size_{it} + \\ \delta_6 EPS_{it} + \delta_6 Ind_{it} + \delta_7 Maxinv_{it} + \delta_8 Lev_{it} + \delta_9 IFRSmax_{it} + \\ \delta_{10} ENFmax_{it} + \delta_{11} Industry_{it} + \varepsilon_{it} \qquad (4.3) \end{aligned}$$

The definition of variables and their measurements are presented in Table 4.5.

4.8.3.3 Proportion of zero daily returns days model

Another measure of liquidity is the proportion of the zero daily returns (hereafter, zero returns) developed by Lesmond, Ogden and Trzcinka (1999). Lesmond et al. (1999) argue that if available information is not sufficient to compensate for the cost of transacting, informed traders may not trade or they may reduce their trading activity. Thus, there will be no price movement from the previous day. Similarly, uninformed traders would generally not trade when liquidity is low or transaction cost is high. Again, there would be no price movement from the previous day. The proportion of zero daily returns measures the number of days without price movement to the total trading days. Bekaert, Harvey and Lundblad (2007) argue that this measure of liquidity is particularly useful for emerging markets.

The proportion of the zero daily returns is estimated using the formula below:

$$Zero_{it} = \frac{zero\ daily\ return\ days_{it}}{trading\ days_{it}} \quad (4.4)$$

Bekaert et al. (2007) argue that there are some limitations with the zero returns measure. Thus, they recommend a transformation of this measure using the formula below:

$$Liquidity = 1 - Zero_{it} \quad (4.5)$$

The zero returns model is with IFRS, enforcement and other control variables is stated as follows:

$$Zero_{it} = \alpha + \delta_1 IFRS_{it} + \delta_2 Enf_{it} + \delta_3 Return_{it} + \delta_4 Volatility_{it} + \delta_5 Size_{it} + \delta_6 EPS_{it} + \delta_6 Ind_{it} + \delta_7 Maxinv_{it} + \delta_8 Lev_{it} + \delta_9 IFRSmax_{it} + \delta_{10} ENFmax_{it} + \delta_{11} Industry_{it} + \varepsilon_{it} \quad (4.6)$$

The definition of variables and their measurement are presented in table 4.3. In all the models, the interaction variable between IFRS and Enf is omitted because including such variable creates a perfect multicollinearity with IFRS variable. The reason for this is because IFRS was made mandatory for all the Nigerian firms at the same time (i.e., year 2012). Similarly, the FRCN affects the firms in the same way.

4.9 Data Analysis

4.9.1 Descriptive Statistics

Table 4.6 presents the descriptive statistics of all variables before and after the adoption of IFRS. It can be seen that the mean bid-ask-spread significantly reduces post-IFRS adoption. This suggests a reduction in information asymmetry due to more disclosure of information by IFRS than the Nigerian GAAP. There is also a reduction in trading volume of stock, which further supports the reduction in information asymmetry following IFRS adoption. However, a reduction in trading volume may imply that there is a reduction in the activities of informed traders in Nigeria or they are few, as argued by Kim and Verrecciha (1994). Zero returns significantly reduces post-IFRS adoption. Since the zero returns is a transformation of Lesmond et al.'s model (i.e., 1 - $Zero_{it}$), which measures liquidity, the reduction in zero returns supports the existence of few informed traders or a reduction in their activities.

Furthermore, market returns become more volatile (volatility) in the post-FRCN establishment period. This suggests a higher uncertainty in predicting firms' returns. There is a significant reduction in market return post-IFRS adoption, which supports the significant increase in volatility, as higher return implies lower volatility and vice versa.

There is a significant increase in the proportion of independent directors following IFRS adoption. Perhaps, this is informed by the firms' need to show more transparency. Size of firms significantly increased as well, but there is no proportionate increase in earnings (EPS) to justify the investment in more assets.

Table 4.7 presents the descriptive statistics of all variables before and after the establishment of the FRCN. It can be seen that the mean bid-ask-spread significantly reduces post-FRCN establishment. This suggests a reduction in information asymmetry due to the enhanced monitoring by the FRCN. There is also a reduction in trading volume of stock, which further supports the reduction in information asymmetry following the establishment of the FRCN. However, a reduction in trading volume may imply that there is a reduction in the activities of informed traders in Nigeria or they are few, as argued by Kim and Verrecciha (1994). Zero returns significantly reduces post-FRCN establishment, which further supports a reduction in the activities of informed traders.

Furthermore, market returns become more volatile (volatility) in the post-FRCN establishment period. This suggests a higher uncertainty in predicting firms' returns. There is a significant reduction in market return post-FRCN establishment, which supports the significant increase in volatility. There is a significant increase in the proportion of independent directors in the post-FRCN establishment period. Perhaps, this is informed by the firms' need to show more transparency. Size of firms significantly increased as well, but there is no proportionate increase in earnings (EPS) to justify the investment.

Table 4.8 depicts the correlation between all the variables used in the three liquidity models. None of the variables has a correlation of 80% or more, which suggests that there is no multicollinearity. Furthermore, volume and zero are positively correlated as found by Bekaert et al. (2007) and Chai et al. (2010). Zero is negatively correlated with BAS at 10% level of significance. This low correlation also confirms the finding of Chai et al. (2010). However, the negative correlation between Zero and BAS is due to the transformation in Lesmond et al.'s (1999) zero model[57]. Both the IFRS and Enf variables are negatively and significantly correlated with all the three measures of liquidity, suggesting that the two mechanisms increase liquidity of the Nigerian listed firms. However, the negative correlations with the volume and zero returns further suggests the existence of few informed traders or a reduction in their activities.

[57] When zero is not transformed, the correlation with BAS is positive. However, the result is not reported.

Table 4.6 Descriptive Statistics and Univariate Analysis of Variables before and after IFRS Adoption

Variables	Pre-IFRS Adoption					Post-IFRS Adoption					Univariate Analysis	
	Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max	T-test	Wilcoxon rank-sum
BAS	888	0.1035	0.268	0	1.7297	907	0.0066	0.0095	0	0.1074	0.0000***	0.0000***
Volume	884	12.1424	2.0556	4.7593	18.184	899	11.7527	2.5213	1.3783	17.4184	0.0004***	0.0363**
Zero	884	0.3856	0.2999	0	1	901	0.3188	0.2935	0	1	0.0000***	0.0000***
Lev	868	0.783	1.6783	0.0275	16.5731	892	0.7886	1.5277	0.0506	13.5206	0.9411	0.3926
Maxinv	912	0.4008	0.205	0.0539	0.887	908	0.4054	0.2104	0.0539	0.887	0.6360	0.5531
Ind	912	0.0082	0.0472	0	0.429	908	0.0237	0.0753	0	0.429	0.0000***	0.0000***
EPS	853	1.6026	3.1246	0	18.3471	888	1.8496	4.0005	0	28.34	0.1525	0.2358
Size	752	6.9969	0.6397	5.7674	8.603	732	7.1264	0.6882	5.7241	8.9491	0.0002***	0.0006***
Return	912	0.0111	0.0593	-0.1068	0.12265	912	-0.0131	0.0365	-0.0658	0.0788	0.0000***	0.0000***
Volatility	912	-2.9061	0.7161	-4.2209	-1.8241	912	-3.0425	0.4117	-3.9311	-2.2935	0.0000***	0.0000***

*, ** and *** represent 10%, 5% and 1% levels of significance.

Table 4.7 Descriptive Statistics and Univariate Analysis of Variables before and after FRCN Establishment

Variables	Pre-FRCN Establishment					Post-FRCN Establishment					Univariate Analysis	
	Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max	T-test	Wilcoxon rank-sum
BAS	585	0.1551	0.3182	0	1.7297	1,210	0.0059	0.0088	0	0.1074	0.0000***	0.0000***
Volume	585	12.203	2.0709	4.8993	18.184	1,198	11.8204	2.4088	1.3783	17.4184	0.0010***	0.0086***
Zero	585	0.4427	0.3109	0	1	1,200	0.3076	0.2819	0	1	0.0000***	0.0000***
Lev	568	0.7666	1.5757	0.0275	15.808	1,192	0.795	1.6169	0.0483	16.5731	0.7279	0.3379
Maxinv	608	0.4001	0.2049	0.0539	0.887	1,212	0.4046	0.2091	0.0539	0.887	0.6576	0.6021
Ind	608	0.0018	0.0221	0	0.273	1,212	0.0231	0.075	0	0.429	0.0000***	0.0000***
EPS	557	1.5889	3.0611	0	17.6626	1,184	1.7943	3.8257	0	28.34	0.2669	0.0327
Size	496	6.9717	0.6359	5.7674	8.5132	988	7.1055	0.6779	5.7241	8.9491	0.0003***	0.0006***
Return	608	0.0083	0.0695	-0.1068	0.1227	1,216	-0.0057	0.0372	-0.0658	0.07881	0.0000***	0.0000***
Volatility	608	-2.6777	0.5498	-3.4268	-1.8241	1,216	-3.1225	0.5491	-4.2209	-2.2935	0.0000***	0.0000***

*, ** and *** represent 10%, 5% and 1% levels of significance.

4.9.2 Regression Analysis

To test whether fixed effect or random effect is appropriate, the Hausman test was conducted. The test gave a p-value of 0.9041 for the BAS model which implies a non-rejection of the null hypothesis that the difference in coefficients of the fixed and random effect model is systematic. A random effect model is hence favoured. Furthermore, Breusch-Pagan Lagrangian multiplier test for random effects was conducted. With a p-value of 0.0271, which is less than 0.05 (5% significance level), the test result indicates the existence of random effect (Hill, Griffiths and Lim, 2012). Based on this result, a random-effect regression is run to test the hypotheses of this study using the BAS model.

For the volume and zero daily returns model, the Hausman test gave a p-value of 0.000, which supports the use of fixed-effect. Thus, the fixed-effect regression is used for both the volume and the zero returns model.

To control for heteroskedasticity in all the three models, particularly as it a major problem associated with short panels[58] (Hill et al., 2012), the standard errors were clustered to obtain heteroskedasticity robust standard errors. The results of the random-effect model and the fixed-effect models are presented in Table 4.9.

Table 4.9 depicts the regression results of the three liquidity models. IFRS adoption significantly reduces the bid-ask spread at 1% level of significance. Thus, the adoption of IFRS improves market liquidity of the Nigerian listed firms. This result confirms the first hypothesis of this study. Consistent with previous studies (e.g., Mohd, 2005; Frino et al., 2013; Lang and Maffett, 2011; Neel, 2017; Katselas et al., 2016), IFRS's higher disclosures than the Nigerian GAAP reduces information asymmetry, and consequently improves market liquidity. This result however, contradicts the finding of Franzen and Weißenberger (2018). This is because their study only examined the adoption of IFRS 8, which may not be perceived by stakeholders as a substantial improvement to the information environment of Germany. For the volume and zero returns models, IFRS does not have any significant effect. This result, as argued by Chai et al. (2010), is because different proxies of market liquidity measure different aspects of liquidity.

[58] Panel data set whose observation units are greater than the number of years each unit is observed.

Table 4.8 Pairwise Correlation of all Variables in all the Models

Variables	Zero	Lev	Maxinv	Ind	Volume	EPS	Size	BAS	IFRS	Enf	IFRSmax	Enfmax	Return	Volatility
Zero	1													
Lev	-0.128***	1												
Maxinv	-0.107***	-0.0713**	1											
Ind	0.0483	0.0211	0.169***	1										
Volume	0.627***	-0.163***	-0.182***	0.0425	1									
EPS	0.0804**	0.00928	0.227***	0.0107	-0.00440	1								
Size	0.337***	-0.0477	0.303***	0.242***	0.354***	0.478***	1							
BAS	-0.0573*	-0.0111	0.0211	-0.0536*	-0.0490	-0.0159	-0.0540*	1						
IFRS	-0.0995***	0.0628*	0.0231	0.116***	-0.0729**	0.0487	0.0890***	-0.251***	1					
Enf	-0.219***	0.0673*	0.0243	0.157***	-0.0822**	0.0284	0.0828**	-0.369***	0.690***	1				
IFRSmax	-0.0887***	0.000948	0.463***	0.200***	-0.123***	0.162***	0.212***	-0.200***	0.791***	0.545***	1			
Enfmax	-0.178***	-0.0141	0.597***	0.256***	-0.147***	0.172***	0.243***	-0.269***	0.503***	0.721***	0.765***	1		
Return	-0.0169	-0.0130	0.00274	-0.0321	-0.0391	-0.00255	-0.0171	-0.0559*	-0.263***	-0.141***	-0.205***	-0.101***	1	
Volatility	0.178***	-0.0304	-0.0102	-0.0571*	0.0249	0.00895	-0.0170	0.102***	-0.0780**	-0.320***	-0.0619*	-0.230***	0.238***	1

*, ** and *** represent 10%, 5% and 1% levels of significance, respectively.

Table 4.9 Regression Results

Variables	BAS	Volume	Zero Daily Returns
	Estimates (p-value)	Estimates (p-value)	Estimates (p-value)
Intercept	0.2433 (0.000)***	1.8045 (0.687)	-1.5762 (0.063)*
Return	-0.541 (0.000)***	-2.5628 (0.000)***	-0.2433 (0.075)*
Volatility	0.0011 (0.644)	0.0763 (0.150)	0.0556 (0.000)***
EPS	0.0002 (0.869)	-0.0427 (0.508)	0.0029 (0.623)
IFRS	-0.0136 (0.000)***	-0.2721 (0.339)	0.0096 (0.836)
Enf	-0.0984 (0.000)***	-0.4795 (0.034)**	-0.2355 (0.000)***
Lev	-0.0005 (0.956)	0.2203 (0.436)	0.035 (0.325)
Maxinv	0.1076 (0.026)**	3.927 (0.050)**	0.5222 (0.095)*
Ind	0.015 (0.645)	0.5501 (0.719)	-0.0203 (0.922)
IFRSmax	0.0005 (0.908)	-0.2181 (0.731)	-0.0066 (0.944)
Enfmax	-0.0958 (0.070)*	0.6488 (0.185)	0.203 (0.036)**
Size	-0.0155 (0.007)***	1.3138 (0.042)**	0.2829 (0.021)**
Qrt fixed effect	Yes	Yes	Yes
Industry fixed effect	Yes	-	-[59]
Adjusted R^2	21.78%	5.89%	18.45%
Firm-quarters	1,416	1,417	1,418

****, ** and * indicate significance levels at 1%, 5% and 10%, respectively.*

The establishment of and enforcement by the FRCN significantly improves market liquidity of the Nigerian listed firms across all the three proxies of market liquidity. Thus, the second hypothesis of this study is confirmed. This result confirms the findings in prior studies (Kyriacou and Mase, 2000; Hedge and McDermott, 2004; Heflin et al., 2005; Jain et al., 2008; Ernstberger and Stich, 2012; Lee and Wong, 2012; Shroff et al., 2013; Christensen et al., 2016; Qu et al., 2017). The establishment of and enforcement by the FRCN has a significant negative relationship with the bid-ask spread at 1% level of significance. However, its significant negative relationship with volume

[59] Clustering is at firm-level.

and zero returns implies that there is a reduction in the activities of informed traders in the Nigerian stock market (Kim and Verrecchia, 1994; Lesmond et al., 1999; Bekaert et al., 2007). Based on these results, the second hypothesis of this study is also confirmed. This indicates that the establishment of the FRCN reduces information asymmetry via the publication of monitoring procedures and sanctions, which reassures the Nigerian public of the credibility of the financial statements produced by the Nigerian listed firms.

Consistent with prior studies (Bhattacharya et al., 2012; Bar-Yosef and Prencipe, 2013; Franzen and Weißenberger, 2018) market return is significantly negative across all the three liquidity models. Return volatility is positively related to zero returns, which is also consistent with prior studies (Bar-Yosef and Prencipe, 2013; Christensen et al., 2016; Franzen and Weißenberger, 2018). *Maxinv* is significantly positive across all the three measures of liquidity (see Bar-Yosef and Prencipe, 2013), while size is negatively related to the BAS but positively related to volume and zero returns (Fehle, 2004; Attig et al., 2006). The interaction term between *Enf* and *Maxinv* improves market liquidity as shown by its negative relationship with BAS and positive relationship with volume and zero returns. Which means the enforcement by the FRCN and the highest percentage of individual ownership of the shares of the firm is perceived as a positive development by the Nigerian stock market.

The results equally confirm the assumption of the signalling theory that the adoption of IFRS and the establishment of the FRCN signals to the market that a transparent financial reporting regime has been adopted in Nigeria. Thus, the market participants respond to these reforms by reducing their suspicion of sellers withholding private information. The government of Nigeria (the signaller) benefits from a higher market liquidity, which translates to higher investment. The investors, on the other hand, benefit from a more transparent market, which will reduce adverse selection.

4.9.2.1 Sensitivity analysis

Some studies use trading volume as a control variable (Leuz and Verrecchia, 2000; Frino et al, 2013; Bar-Yosef and Prencipe, 2013; Franzen and Weißenberger, 2018). To test whether the result of this study is sensitive to the non-inclusion of volume as a control variable, another regression is run for the BAS and zero returns models with volume as one of the control variables. The results of the sensitivity test presented in Table 4.10 shows that the explanatory power of the variables of interest (*Enf and IFRS*) is robust and does not change with the inclusion of volume.

Table 4.10 Sensitivity Analysis Results (Volume as a Control Variable)

Variables	BAS (random-effects)	Zero Daily Returns (fixed-effects)
	Estimates (p-value)	**Estimates (p-value)**
Intercept	0.2525 (0.000)***	-1.7629 (0.009)**
Volume	-0.0055 (0.025)**	0.0621 (0.000)***
Return	-0.5536 (0.000)***	-0.0874 (0.460)
Volatility	0.0014 (0.587)	0.0533 (0.000)***
EPS	0.0005 (0.655)	0.0054 (0.246)
IFRS	-0.0155 (0.000)***	0.0224 (0.604)
Enf	-0.1014 (0.000)***	-0.2045 (0.000)***
Lev	-0.0032 (0.689)	0.0257 (0.357)
Maxinv	0.0863 (0.071)*	0.242 (0.264)*
Ind	0.0203 (0.571)	-0.0531 (0.749)
IFRSmax	0.001 (0.866)	0.01 (0.904)
Enfmax	-0.0926 (0.078)*	0.0621 (0.058)*
Size	-0.0005 (0.580)	0.2138 (0.031)**
Qrt fixed effect	Yes	Yes
Industry fixed effect	Yes	-
Adjusted R^2	26.10%	33.72%
Firm-quarters	1,415	1415

****, ** and * indicate significance levels at 1%, 5% and 10%, respectively.*

4.9.2.2 Further sensitivity analysis

The market may have been aware of the strengthened enforcement by the NASB in 2010. Thus, information asymmetry may have reduced from this point onwards. To test whether the initial results are sensitive to this argument, a new regression is run with the binary variable Enf, measured as 0 for 2009 and 1 from 2010 – 2014. Table 4.11 presents the regression results. A similar result is obtained, as IFRS adoption and enforcement by the NASB/FRCN have a significant negative relationship with the bid-ask spread. Similarly,

their negative relationship with both volume and zero returns reinforces the argument that the informed traders became inactive following the reduction in the bid-ask spread.

Table 4.11 Sensitivity Analysis Results (Date of Enforcement)

Variables	BAS	Volume	Zero Daily Returns
	Estimates (p-value)	**Estimates (p-value)**	**Estimates (p-value)**
Intercept	0.2359 (0.000)***	1.9749 (0.673)	-1.5762 (0.063)*
Volume	-0.0052 (0.030)***	-	-
Return	-0.7273 (0.000)***	-2.8911 (0.000)***	-0.4887 (0.000)***
Volatility	-0.0189 (0.000)***	0.0778 (0.185)	0.0406 (0.000)***
EPS	-0.0006 (0.636)	-0.0394 (0.546)	0.0029 (0.623)
IFRS	-0.5439 (0.001)***	-0.2721 (0.038)**	-0.1116 (0.066)*
Enf	-0.0544 (0.000)***	-0.1169 (0.447)	-0.1266 (0.000)***
Lev	-0.0042 (0.624)	0.2001 (0.482)	0.0356 (0.319)
Maxinv	0.1351 (0.000)***	3.927 (0.050)**	0.6339 (0.033)**
Ind	0.0313 (0.436)	0.6707 (0.664)	0.0396 (0.851)
IFRSmax	0.0792 (0.005)***	0.2984 (0.603)	0.2204 (0.053)*
Enfmax	-0.2179 (0.000)***	0.1826 (0.534)	-0.1697 (0.000)**
Size	-0.0045 (0.573)	1.2738 (0.058)*	0.3076 (0.021)**
Qrt fixed effect	Yes	Yes	Yes
Industry fixed effect	Yes	-	-[60]
Adjusted R^2	23.54%	5.59%	17.37%
Firm-quarters	1,416	1,417	1,418

****, ** and * indicate significance levels at 1%, 5% and 10%, respectively.*

Since an interactive variable between IFRS and enforcement cannot be created due to the Enf and IFRS variable being measured by year dummies and such variable will have a perfect multicollinearity with the IFRS variable, another regression is run for the period 2009 – 2011 when IFRS was not adopted. This is to ensure that the conclusion that enforcement improves market liquidity is not spurious. Table 4.12 shows the result of the regressions for

[60] Clustering is at firm-level.

all the market liquidity proxies. Enforcement has a significantly negative relationship with the bid-ask spread, volume and zero returns at 1%, 10% and 1% levels of significance, respectively, which confirms the initial results and conclusions.

Table 4.12 Sensitivity Analysis Result (for the Period 2009 – 2011)

Variable	BAS	Volume	Zero Daily Returns
	Estimates (p-value)	Estimates (p-value)	Estimates (p-value)
Intercept	0.5805 (0.000)***	10.4889 (0.077)*	1.6476 (0.252)
Volume	-0.019 (0.002)***	-	-
Return	-0.9416 (0.000)***	-1.4698 (0.150)	0.1466 (0.443)
Volatility	0.0344 (0.000)***	0.034 (0.647)	0.0573 (0.000)***
EPS	-0.0023 (0.397)	0.0341 (0.467)	0.0026 (0.803)
Enf	-0.0812 (0.001)***	-0.3922 (0.084)*	-0.2139 (0.000)***
Lev	-0.0166 (0.443)	-0.006 (0.988)	-0.0104 (0.909)
Maxinv	0.0729 (0.113)	10.4222 (0.233)	-0.1966 (0.909)
Ind	0.0876 (0.175)	3.0691 (0094)*	0.0976 (0.641)
Enfmax	-0.951 (0.064)*	0.5104 (0.229)	0.2329 (0.014)**
Size	-0.0093 (0.606)	-0.3154 (0.642)	-0.1365 (0.441)
Qrt fixed effect	Yes	Yes	Yes
Industry fixed effect	Yes	-	-[61]
Adjusted R^2	49.87%	6.27%	27.47%
Firm-quarters	690	690	690

****, ** and * indicate significance levels at 1%, 5% and 10%, respectively.*

Similarly, to test whether the significance of the enforcement in improving market liquidity is not sensitive to the effective date of enforcement, a further regression is run with the binary enforcement variable, Enf, measured as 0 for 2009 and 1 for 2010 and 2011. Table 4.13 presents the regression results. Similar to the previous results, enforcement significantly improves market liquidity.

[61] Clustering is at the firm-level.

Table 4.13 Sensitivity Analysis Result for the Period 2009 – 2011 and 2010 as the Effective Date of Enforcement

Variable	BAS	Volume	Zero Daily Returns
	Estimates (p-value)	Estimates (p-value)	Estimates (p-value)
Intercept	0.4856 (0.000)***	15.2795 (0.014)**	2.0725 (0.165)
Volume	-0.0176 (0.003)***	-	-
Return	-1.4429 (0.000)***	-1.094 (0.285)	0.2236 (0.230)
Volatility	-0.0362 (0.000)***	0.1758 (0.069)*	0.0386 (0.002)***
EPS	-0.0024 (0.393)	0.0503 (0.244)	0.0077 (0.419)
Enf	-0.1542 (0.000)***	0.2252 (0.147)	-0.0832 (0.011)**
Lev	-0.0154 (0.443)	-0.2851 (0.476)	-0.0845 (0.417)
Maxinv	0.1183 (0.002)***	9.7927 (0.299)	-0.12 (0.949)
Ind	0.1162 (0.111)	3.2457 (0088)*	0.1978 (0.380)
Enfmax	-0.1976 (0.000)*	-0.184 (0.460)	-0.1256 (0.004)***
Size	-0.0114 (0.533)	-0.9272 (0.177)	-0.1977 (0.277)
Qrt fixed effect	Yes	Yes	Yes
Industry fixed effect	Yes	-	-[62]
Adjusted R^2	43.39%	5.91%	23.62%
Firm-quarters	690	690	690

****, ** and * indicate significance levels at 1%, 5% and 10%, respectively.*

4.10 Discussion of Findings and Conclusion

This study examines the effectiveness of accounting reform in the form of IFRS adoption and the strengthening of enforcement institution in improving market liquidity in a highly corrupt environment without other improvements in macro institutional structures that could reinforce the accounting reform. The study finds that regardless of the weaknesses in macro institutional structures, accounting reforms that have been undertaken by the Nigerian government are effective in enhancing the country's capital market outcome.

Although, both enforcement and IFRS adoption are important regulatory measures that have significant impact on the Nigerian capital market in the form of

[62] Clustering is at the firm-level.

improved market liquidity, the strength of enforcement is enhancing market liquidity is more than that of IFRS[63]. This argument supports the conclusion of Christensen et al. (2013) that concurrent enforcement rather than the adoption of IFRS is a better explanation for improved capital market outcomes in prior studies. Although This finding indicates the importance of institutional settings in accounting regulations study.

Contrary to prior studies that argue that higher benefits of IFRS adoption is attributable to countries that have strong legal enforcement (Daske et al. 2008, Li 2010), this study finds that despite the weak legal enforcement in Nigeria, IFRS adoption significantly increases market liquidity in Nigeria. Similarly, the argument that IFRS only has a positive effect on capital market outcomes of countries whose GAAP exhibit higher divergence from IFRS (see Florou and Pope 2012, Byard et al. 2011, Tan et al. 2011) does not hold in Nigeria as the Nigerian GAAP has a low divergence from IFRS (ROSC 2004, 2011).

This study contributes to prior literature on the effects of IFRS adoption and enforcement on capital market outcomes, which has remained inconclusive (Leuz and Wysocki 2016, De George et al. 2016). Due to the setting of our study, where enforcement had improved prior to IFRS adoption, we were unable to examine the effect of IFRS on market liquidity where IFRS was adopted before the strengthening of enforcement. Thus, future studies may explore the effect of IFRS in such other unique settings.

This study is also limited by the inability to examine the effect of the interaction of IFRS and enforcement on market liquidity. This is because creating such variable leads to a perfect multicollinearity with the IFRS variable, as there is no variation in the adoption period of IFRS by Nigerian listed firms. Similarly, a more critical theory (e.g., institutional theory) may be explored to further understand the underlying isomorphic pressures that could explain reduction in information asymmetry in Nigeria around the period of enforcement and IFRS adoption. This would need further data (e.g., interviews with financial analysts) collection which is beyond the scope of this work.

Notwithstanding this shortcoming, this study’s result is novel, as it uncovers that both IFRS and enforcement are of benefits to the capital market by exploring the unique setting of Nigeria. Hence, this study recommends that countries with a similar setting as Nigeria are encouraged to adopt IFRS and create an institution to monitor financial reporting in general, as this would bring about an improved capital market outcome.

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[63] See the last sensitivity analysis result

Chapter 5

Summary and Conclusion

5.1 Summary and Reflection

The first empirical part of the thesis (chapter 2) challenges the notion that developing countries are replete with weak accounting infrastructure, which makes them to symbolically adopt IFRS. In the context of Nigeria, the study begins by examining whether the recent reform of accounting infrastructure tells a different story from what is in extant literature regarding developing countries' adoption of IFRS. It begins with assessing whether the outcome of the institutionalisation of IFRS in Nigeria is substantive or symbolic. This is due to the fact that most developing countries do not have the necessary infrastructures to substantively adopt IFRS. However, in Nigeria, the recent reform of accounting infrastructures through the establishment of the FRCN, the reform of accounting profession and education, and some other ancillary isomorphic factors like parent companies' influence makes the adoption of IFRS substantive.

The study adopts the Dillard et al.'s (2004) variant of institutional theory to understand the institutionalisation process of IFRS in Nigeria. It is important to explicate the institutionalisation process to fully comprehend why the outcome may be a substantive or symbolic adoption. This study finds that institutionalisation follows a stepwise process. At the social, political, and economic level, the institutionalisation process is tailored towards creating an enforcement institution (i.e., the FRCN) that will transfer the rule (IFRS) to the organisational field. At the organisational field, the enforcement institution develops different strategies that will ensure that companies 'appear' to comply with IFRS by using it for external reporting. The substantive adoption (for internal reporting) of IFRS at the organisational level is ensured by the joint effect of the strategies developed by the FRCN and other ancillary factors.

By conducting annual review of financial statements and sanctioning erring companies, the FRCN ensures that Nigerian companies' audited financial statements are in compliance with IFRS. Furthermore, the requirement by the FRCN that auditors must sign audited financial statements in their names has made external auditors to be more meticulous in ensuring that their clients' financial statements comply with IFRS. The members of ICAN and accounting graduates exert normative pressure on companies through their IFRS-based trainings. Since the board of directors are required to submit

quarterly reports to the SEC and the FRCN, they ensure that these quarterly reports comply with IFRS. Thus, this makes Nigerian firms to use IFRS for internal reporting, thereby, adopting it substantively. Other factors consolidating this substantive use of IFRS are the requirements by parent companies that their Nigerian subsidiaries' reports comply with IFRS; the cost of translating internal reports from Nigerian SAS to IFRS; and the internal checks of underlying records by internal auditors.

An important contribution of this chapter is that it shows the institutionalisation of IFRS as a process rather than as outcome, which is the gap that previous studies could not feel. By unveiling the institutionalisation process, the study is able to explain how the outcome of IFRS adoption in Nigeria has been substantive. Secondly, the chapter tells a different story of the institutionalisation of IFRS. Unlike in previous studies where IFRS is symbolically adopted, in Nigeria, IFRS is substantively institutionalised. Thirdly, the chapter shows that developing countries can focus on establishing a strong enforcement institution and overhaul their accounting education to ensure substantive adoption of IFRS regardless of any enhancement in the macrolevel governance structures such as the rule of law. Finally, the chapter has a significant implication for the inferences made in both chapters three and four, in that a substantive adoption implies IFRS data used in chapters three and four are reliable.

Chapter three moves further to examine the second argument associated with IFRS adoption. Given the substantive adoption of IFRS in Nigeria, it is important to determine whether this outcome translates to a better accounting quality, as argued by the IASB and the US SEC. There have been many studies (e.g., Jeanjean and Stolowy, 2008; Barth et al., 2008; Chua et al., 2012; Kabir et al., 2010; Ahmed et al., 2013; Doukakis, 2014; Burnett et al., 2015; Christensen et al., 2015; Bryce et al., 2015; Capkun et al., 2016) from both developed and developing countries that looked into the effect of IFRS adoption on accounting quality. However, their results have been highly mixed. Some argue that IFRS adoption does not improve accounting quality (e.g., Kabir et al., 2010; Bryce et al., 2015; Christensen et al., 2015; Capkun et al. 2016). Other studies, on the other hand, conclude that IFRS adoption increases accounting quality (e.g., Barth et al., 2008; Chen et al., 2010; Chua et al., 2012; Wan Ismail et al., 2013; Lourenco et al., 2015). Following these streams of conflicting findings, Chritsensen et al. (2015) argue that for voluntary IFRS adopters, incentives to improve reporting quality rather than IFRS adoption, enhances accounting quality. For mandatory IFRS adopters, enforcement of accounting standards rather than IFRS, improves accounting quality. To confirm the

above, assertion, a setting where the effect of enforcement and IFRS adoption on accounting quality can be easily separated is needed. The unique setting of Nigeria, where the FRCN was established one year before IFRS adoption, provides a rare opportunity for answering this question.

Chapter 3 assesses the effect of IFRS and enforcement on accounting quality in Nigeria. The chapter explores accounting quality from three dimensions, namely earnings management, timely loss recognition, and earnings persistence. The chapter adopts fixed-effect panel regression for earnings management, binary logistic regression for timely loss recognition and generalised method of moment (GMM) for earnings persistence. The chapter's finding is novel. Previous studies that looked at the joint effect IFRS adoption cum enforcement on accounting quality find that enforcement rather than IFRS adoption improves accounting quality (Christensen, 2013; 2015). Other studies find that IFRS adoption and enforcement reinforce each other in improving accounting quality (Cai et al., 2014; Kim, 2016). However, this chapter finds that IFRS adoption reduces accounting quality, while enforcement of accounting standard increases accounting quality.

Chapter four examines the argument relating to the effect of IFRS adoption on the capital market. This study focuses on market liquidity, as it is the most theoretically linked capital market outcome resulting from accounting infrastructures reform (Christensen et al., 2013). Leuz and Wysocki (2016) argue that the effect of IFRS on accounting quality does not affect its effect on the capital market, since the capital market acts on news and signals. The result of IFRS adoption and enforcement on market liquidity in Nigeria confirms this viewpoint. Although IFRS reduces accounting quality and enforcement increases it, the adoption of IFRS and the establishment of the FRCN both increase market liquidity in Nigeria. Thus, there is a trade-off between improved accounting quality and capital market benefits following IFRS adoption.

Three proxies of market liquidity were used in this chapter. A random-effect regression was adopted for the bid-ask spread regression, while a fixed-effect regression was adopted for both the zero returns and the volume models. The study finds that, although, IFRS adoption and enforcement reduce information asymmetry, the two regulatory mechanism decreased volume and zero returns (as modified). This is due to the inactiveness of informed traders or because the inside information revealed was a negative one (Kim and Verrecchia, 1994).

5.2 Implications of the Study

The results of chapter three hold some economic and social implications. Rather than developing countries that have similar socio-political and economic settings with Nigeria investing in IFRS adoption, their strengthening of their enforcement mechanisms is what is essential for them to improve accounting quality in their countries. Secondly, the model used in Nigeria by establishing the FRCN can be adopted by other developing countries regardless of a weak social, political, and economic environment, as it has shown to be effective.

Adopting IFRS by a country like Nigeria is inimical to having an improvement in accounting quality. IFRS increases flexibility in applying accounting methods, thereby jeopardizing the desire to control the managerial manipulations by the FRCN. Therefore, countries may adopt IFRS, but they would need to modify the standards to suit their local needs. It is also not the case that a bundle of accounting regulatory mechanisms satisfies all stakeholders.

Although IFRS reduces accounting quality and enforcement increases it in chapter three, the adoption of IFRS and the establishment of the FRCN both increase market liquidity in Nigeria. Thus, there is a trade-off between improved accounting quality and capital market benefits following IFRS adoption. Adopting IFRS, regardless of its potentials to decrease accounting quality, may be a worthwhile endeavour since countries can have the market liquidity of their firms increased, thereby, attracting foreign investments.

Overall, the study shows that in a country like Nigeria where corruption is rife, and macro institutional structures are weak, accounting regulation, especially enforcement of accounting standards, is still effective in improving accounting quality and encouraging positive capital market response.

Conclusively, developing countries would derive two benefits of improved accounting quality and higher market liquidity with strengthening or establishing strong enforcement institutions. However, they have to make a choice between improved accounting quality and higher market liquidity while adopting IFRS.

5.3 Limitations of the Studies and Avenues for Further Research

Chapter two is limited by the case study research design approach that it employs. As in all case study designs, generalising beyond the case is difficult. Similarly, in this study, the researcher is unable to generalise the substantive institutionalisation of IFRS beyond

the case units studied. Moreover, the researcher was only able to get back 13% of the distributed mail questionnaires, which inhibited a generalisable inference about the institutionalisation of IFRS by all Nigerian listed firms.

Chapter three and four are limited by the inability of the researcher to interact IFRS with the enforcement variable so as to assess the joint effect of the two variables of interest and the separate effect of the variables. Notwithstanding this limitation, however, the researcher was able to evaluate the separate effects of the two regulatory mechanisms by creating a subsample. Furthermore, the regulatory mechanisms were proxied by year dummies, which is the only possible measure. However, such measures may capture more than the accounting regulatory change.

Future research can address some other issues germane to the research direction of this study. A similar study can be carried out using a larger data set, if available, for countries in West Africa, which have similar institutional structures with Nigeria, to further confirm the conclusions of this study. Furthermore, future studies can explore various dimensions of corporate governance to reveal further insights into firm-level influences on accounting quality and market liquidity. Other unique settings can be explored to unveil new theoretical insights relating to accounting regulations.

Table 5.1 Summary of Hypotheses and Results

Hypotheses	Results
1. IFRS adoption significantly reduces earnings management behaviour of Nigerian listed firms.	*Hypothesis not accepted*
2. The monitoring and enforcement approach by the FRCN significantly reduces earnings management behaviour of Nigerian listed firms.	*Hypothesis accepted*
3. IFRS adoption significantly increases timely loss recognition by Nigerian listed firms.	*Hypothesis not accepted*
4. The monitoring and enforcement approach by FRCN significantly increases timely loss recognition by Nigerian listed firms	*Hypothesis accepted*
5. IFRS adoption increases the persistence of earnings of Nigerian listed firms.	*Hypothesis not accepted*
6. IFRS adoption increases market liquidity of Nigerian listed companies	*Hypothesis accepted*
7. The establishment of the Financial Reporting Council of Nigeria increases the stock market liquidity of the Nigerian listed firms.	*Hypothesis accepted*

Appendix I: Interview Protocol

Department of Accountancy, Economics and Finance,
School of Social Sciences,
Heriot-Watt University,
Edinburgh, United Kingdom
Email: za17@hw.ac.uk
Mobile No: +447470019434
Date: 03/01/2017

Attn: Mr *Abd*,
ABC Nigeria
XXX House,
15 XXXX Avenue, CBD
XXX, XXX

Dear Sir,

Re: Enforcement of IFRS in Nigeria

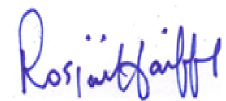
I am a PhD student in the Department of Accountancy, Economics and Finance, Heriot-Watt University in Edinburgh, UK. My research work is to understand how external auditors make Nigerian listed companies adopt IFRS substantively. Substantive adoption means companies not only use IFRS for external reporting but also use it for internal reporting.

To facilitate my note-taking, I would like to record our conversations. The interview is strictly for the purpose of research and only my supervisors and I will be privy to the audio recording. The audio recording will be eventually deleted after they have been transcribed. Subsequently, I would like to send you the interview transcript for clarifications and amendments. Also, it would be appreciated if you make available any documents, data and resources that may be helpful for substantiating your responses.

The interview is planned to last no longer than one hour. During this time, I have a number of questions to cover. If time begins to run short, you may be interrupted to ensure all the questions are covered.

Thank you for agreeing to be interviewed.

Abdul-Baki, Zayyad
Doctoral Researcher



Prof. Ros Haniffa
Supervisor

Section A: Interviewee Background

1. What is your position in the firm? ____
2. How long have you been in the firm? ______________________________________
3. Were you in a different firm before this? ___________________________________
4. If yes, what is the name of the firm and how long were you there? ____________________
5. What are your qualifications? ____

Section B: **Impact of IFRS Enforcement on its Institutionalisation**

6. Are Nigerian listed companies required to use IFRS for internal reporting?
7. Do your clients use IFRS for internal reporting?
8. What are the factors that make your clients use IFRS for internal reporting?
9. If IFRS is not used for internal reporting, what would be the implications for external reports (published accounts)?
10. What are the benefits of IFRS?
11. What are the cost of IFRS?
12. Are the benefits of IFRS more than the cost?
13. Does the cost and benefit of IFRS have an impact on the way your clients use IFRS (i.e. for internal and external reporting)?
14. Do your clients have capable hands in using IFRS?
15. Do you assist your clients in preparing IFRS-based financial statements?
16. If yes, how long have you been helping them do this?

Appendix II: Questionnaire

Department of Accountancy, Economics and Finance,
School of Social Sciences,
Heriot-Watt University,
Edinburgh
Tel: +447470019434
Email: za17@hw.ac.uk
Date:

The Chief Financial Officer or
The Head of Accounting or
The Accountant/Internal Auditor

Dear Sir/ Madam,

Re: The Institutionalisation of IFRS in Nigeria

I am a PhD student in the Department of Accountancy and Finance, Heriot-Watt University in Edinburgh, UK. I am carrying out a research on the degree of integration of IFRS into organisational processes and the factors perceived as enhancing or inhibiting this integration.

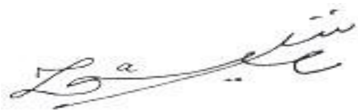
I would appreciate if you could make out time to respond and complete the questionnaire. The information will be used for research purposes only. I would be most grateful to receive any additional comments. ***Any of the above addressees can complete the questionnaire***.

Please do not hesitate to contact me on the above contact details if you have any questions. The researcher hereby assures all respondents that any information supplied will be treated with utmost confidentiality and no part therefrom will be divulged to a third party.

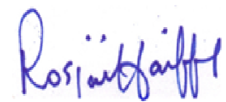
Please find enclosed a self-addressed envelope for returning the questionnaire. ***You may as well return it through my email given in address above***. I would appreciate that the questionnaire is returned within 2 weeks following receipt to facilitate timely conduct of the research.

Thank you for your understanding and cooperation.

Yours sincerely,



Abdul-Baki, Zayyad
Doctoral Researcher



Prof. Ros Haniffa
Supervisor

The Institutionalisation of IFRS in Nigeria

Instructions on completing this section
Please complete the questions below by filling the blank space or by ticking the appropriate box.

Section A: Personal Background

1) What is your current position in this company?

……………………………………………………………………………………..

2) How long have you been in this position in this company?

………………………………………………………………………………………..

3) How long have you been working for this company?

……………………………………………………………………………………….

4) How many companies have you worked for before your current company? ………………………………………………………………………………………..

5) What was the last position held in the last company before this one?

……………………………………………………………………………………….

6) What is your highest level of education?

OND ❑ BSc/HND ❑ MSc ❑ PhD ❑ Professional Certificate ❑

7) Which of the following professional accountancy bodies do you belong to?

ANAN ❑ ICAN ❑ ACCA ❑ CIMA ❑

Others ❑ please specify……………………………………………………………

Section B: Company Background

8) How long has your company been listed on the Nigerian stock Exchange? ……………………………………………………………………………………………

9) On which other stock exchange is your company listed?

……………………………………………………………………………………………

10) Does your company have any plans to list on another stock exchange?
Yes ❑ No ❑

If yes, what is/are the name(s) of this/these stock exchange(s)?

………………………………………………………………………………………………

11) What percentage of your company's shares is owned by foreign investors?

………………………………………………………………………………………………

12) How many accountants with professional accountancy qualification do you have in your company?

………………………………………………………………………………………………

13) How many accountants has your company recruited since 2012?

…………………………………………………………………………………………

Section C: Institutionalisation of IFRS

In this section, please read each statement and circle the number which best represents the practice in your company using the following scale:

1	2	3	4	5
Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**

14) My company uses IFRS in preparing audited/published accounts

1 2 3 4 5

15) IFRS gives very different results from Nigerian SAS when used in preparing financial statements

1 2 3 4 5

If you chose 4 or 5, to what extent?

Minimal ❑ Moderate ❑ Substantive ❑

16) My company prepares internal reports to management using IFRS

1 2 3 4 5

If you chose 4 or 5, state which year your company started preparing internal reports using IFRS?

………………………………………………………………………………………………

17) My company's external auditors will qualify my company's published accounts if they do not comply with IFRS.

1 2 3 4 5

18) My company's external auditors will qualify my company's published accounts if internal reports to the management do not comply with IFRS.

1 2 3 4 5

19) My company's external auditors require that internal reports to the management comply with IFRS.

1 2 3 4 5

20) The Financial Reporting Council of Nigeria monitors my company's compliance with IFRS.

1 2 3 4 5

If you chose 4 or 5, what is the nature of this monitoring?

……………………………………………………………………………………

21) The Financial Reporting Council of Nigeria imposes a strict penalty on my company if my company's published accounts do not comply with IFRS.

1 2 3 4 5

If you chose 4 or 5, what are the kinds of penalty?

……………………………………………………………………………………

22) The Financial Reporting Council of Nigeria requires that my company's internal reports to the management comply with IFRS.

1 2 3 4 5

23) My company benefits from IFRS adoption.

1 2 3 4 5

If you chose 4 or 5, please list this/these benefit(s) to your company

……………………………………………………………………………………

24) My company incurs higher costs for IFRS adoption

1 2 3 4 5

Please list this/these cost(s) to your company

……………………………………………………………………………………

……………………………………………………………………………………

25) The cost of preparing published accounts using IFRS is more than its benefits.

1 2 3 4 5

26) The cost of preparing internal reports to management using IFRS is more than the benefits.

1 2 3 4 5

27) My company provides IFRS training to its accounting staff.

1 2 3 4 5

If you chose 4 or 5, by what means are these trainings conducted?

In house ❑ Staff go on outside training programmes ❑

28) Newly recruited *chartered accountants* in my company are able to use IFRS in preparing financial statements.

1 2 3 4 5

29) Newly recruited *accounting graduates* in my company have a good knowledge of IFRS.

1 2 3 4 5

Thank you so much for your time in completing this survey. Your responses will certainly benefit this study.

Would you like to receive a summary of the questionnaire results when it becomes available?

Yes ❑ **No** ❑

Appendix III: Analysis of Responses to Questionnaire

No	Position of interviewees	Pseudo name of company	Industry	Compliance with IFRS	External auditors	FRCN	Cost/benefit	Opportunity to learn
1	Financial Accountant	Property Plc	Construction/Real Estate	Both internal and external reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS but not internal reports	Annual account submitted to FRCN for review. FRCN writes to seek clarifications if needed and imposes monetary penalty for non-compliance (external report). Internal report is not required to comply with IFRS by FRCN	Accounts are more acceptable but higher audit fees is incurred. Perceived benefits are more than the cost	Staff are trained in-house and go on outside training programme. Recruited chartered accountants are knowledgeable in IFRS but not accounting graduates that are not chartered accountants
2.	Financial Controller	One Bank Plc	Financial Services	Both internal and external reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS but not internal reports	The FRCN reviews both interim and year-end financial statements and imposes financial	Cost of IFRS include external professional/consultant for valuation and training employees	Staff are trained in-house and go on outside training programme. Recruited chartered accountants are

						penalty for non-compliance. Internal report is not required to comply with IFRS by the FRCN		knowledgeable in IFRS
3	Chief Financial Officer	Ceetee Bank Plc	Financial Services	Both external and internal reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS but not internal reports	FRCN approves account before publication and imposes fines for non-compliance.	More standardised reporting and better reception from the investing community. Cost include training cost and software upgrades. Perceived benefits are more than the cost.	Staff are trained in-house and go on outside training programme. Recruited chartered accountants are knowledgeable in IFRS.
4	Chief Finance Officer	Capital Plc	Financial Services	Both external and internal reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS and require that internal reports comply with IFRS	FRCN closely supervises accounting treatments in the financial statements. The FRCN requires that	Financial statements become more comparable and the financial system of Nigeria has become stronger and more reliable.	Staff are trained in-house and go on outside training programme. Newly recruited chartered accountants and accounting

						internal reports comply with IFRS. It imposes fines and publishes such fines and corrections if external reports do not comply with IFRS	Cost of IFRS include revaluation cost and expert consultancy. Perceived benefits are more than the cost.	graduates are knowledgeable in IFRS.
5	Chief Audit Executive	Incorporated Plc	Financial Services	Both external and internal reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS and require that internal reports comply with IFRS	FRCN reviews annual reports for compliance and requires that internal reports comply with IFRS. Fines are imposed for non-compliance.	Perceived benefits of IFRS is more than its cost.	Staff are trained in-house and go on outside training programme. Newly recruited chartered accountants and accounting graduates are knowledgeable in IFRS.
6	Chief Audit Executive	Pound Plc	Financial Services	External reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS	FRCN approves published account and imposes penalty for non-compliance.	Cost of IFRS include consultancy fees, purchase of software and	Staff are trained in-house and go on outside training programme.

						The FRCN does not require that internal reports comply with IFRS	hardware for conversion to IFRS.	Newly recruited chartered accountants and accounting graduates are knowledgeable in IFRS.
7	Manageme nt Accountant	Insurance Plc	Financial Services	Both external and internal reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS and require that internal reports comply with IFRS	FRCN requires that both external and internal reports comply with IFRS. Fines are imposed for non-compliance.	Cost of IFRS include staff training and software update. Perceived benefit of IFRS is more than the cost.	Staff are trained in-house and go on outside training programme. Newly recruited chartered accountants and accounting graduates are knowledgeable in IFRS.
8	Head of Finance	Loans Plc	Financial Services	External reports comply with IFRS but internal reports do not.	External auditors qualify external reports if it does not comply with IFRS	FRCN requires that external reports comply with IFRS. Fines and sanctions are	Benefits of IFRS include better comparability of reports and facilitation of access to loans. Costs include consultancy fees.	IFRS training is not provided to accountants.

						imposed for non-compliance.		
9	Chief Financial Officer	Assurance Plc	Financial Services	Both external and internal reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS	FRCN reviews annual reports for compliance but does not require that internal reports are prepared based on IFRS. Monetary penalties are imposed for non-compliance and may be asked to re-prepare accounts depending on the gravity of the offence.	Benefits of IFRS include: knowing the true worth of shareholders' fund and comparability across industry. Cost include software acquisition and training staff and recruitment professional accountants knowledgeable in IFRS	Staff go on outside training. New accounting graduates do not have a good knowledge of IFRS.
10	Head of Internal Audit	CO Plc	Financial Services	External reports comply with IFRS	External auditors qualify external reports if they do not comply with IFRS.	IFRS enforces compliances and imposes penalties for non-compliance.	Benefits of IFRS include comparability, flexibility, and easy access to foreign capital. Cost	Staff are trained in house and newly recruited chartered accountants have a good knowledge of IFRS.

							include IT infrastructure and training cost.	
11	Internal Auditor	Medical Plc	Healthcare	External reports comply with IFRS	External auditors qualify reports for non-compliance	FRCN reviews annual accounts for compliance and imposes penalties for non-compliance.	Comparability of accounts is the benefit of IFRS. Cost include conversion cost and additional audit fees. Perceived cost of IFRS is higher than benefits.	Staff are trained in-house. Newly recruited chartered accountants and accounting graduates are knowledgeable in IFRS.
12	Manageme nt Accountant	Pharmaceutical Plc	Healthcare	Both internal and external reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS and require that internal reports comply with IFRS	Quarterly review of accounts by FRCN and requires that internal reports comply with IFRS. Monetary penalties are imposed for non-compliance	Benefits include accurate, timely and comprehensive financial statements; improved consistency and transparency of financial statements. Cost include increased audit fee and advisory charges.	Newly recruited chartered accountants and accounting graduates are knowledgeable in IFRS.

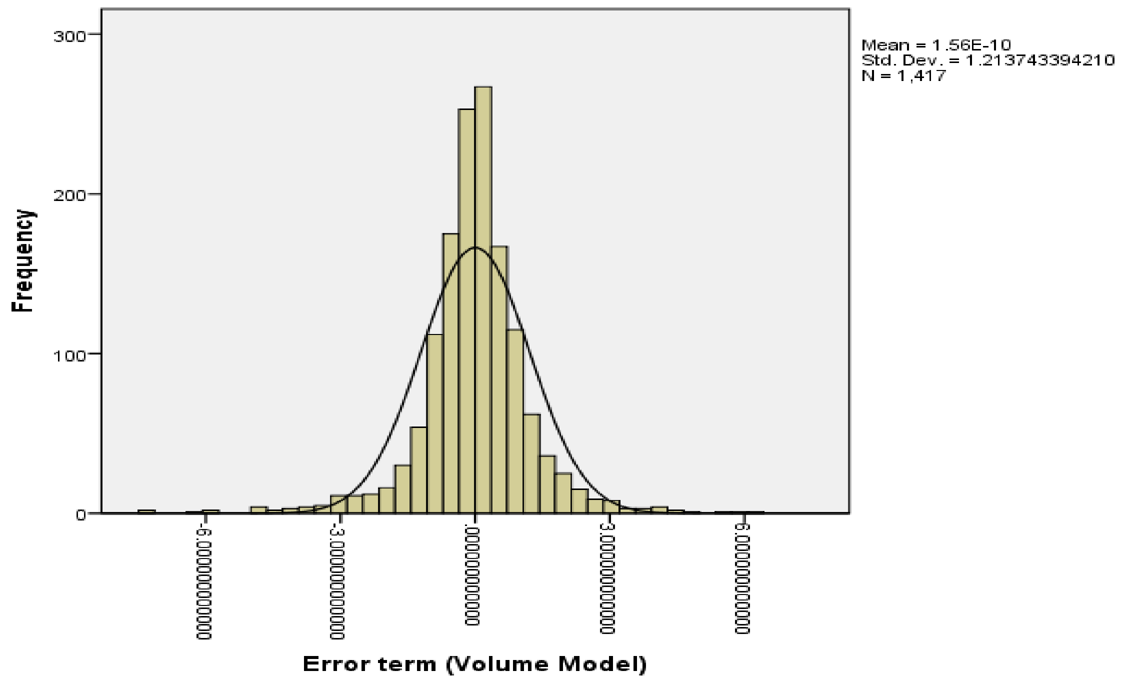
							Perceived benefits are more than the cost	
13	Head of Finance and Accounts	Solutions Plc	Information and Communications Technology	Both internal and external reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS and require that internal reports comply with IFRS	The FRCN reviews company's accounts and requires that internal reports comply with IFRS. Monetary penalties are imposed for non-compliance	Benefits include better understanding of financial statements outside Nigeria. Cost include training cost and software cost.	Staff are trained in house and go on outside training. Newly recruited chartered accountants have a good knowledge of IFRS.
14	Chief Finance Officer	Biometric Plc	Information and Communications Technology	Both internal and external reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS and require that internal reports comply with IFRS	FRCN reviews financial reports for compliance.	Benefits include standardised and detailed reports to the investors. Cost include consultancy and training. Perceived cost of IFRS is more than the benefits.	Staff go on outside training programme.

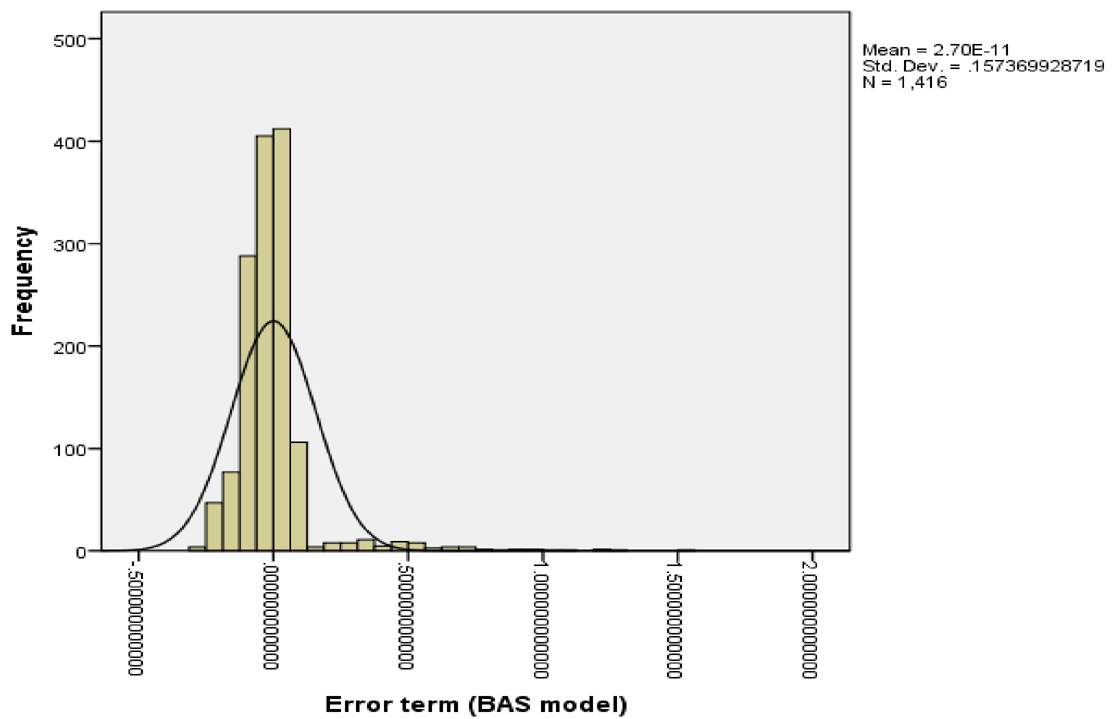
15	Team Lead, Financial/Internal Control	BPN Plc	Oil and Gas	Both internal and external reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS	FRCN imposes strict penalty for non-compliance with IFRS.	Benefits include access to foreign capital, more transparent financial disclosure and ease of business combination. Perceived benefits are more than costs.	Staff are trained in house and go on outside training. Newly recruited chartered accountants and accounting graduates have a good knowledge of IFRS.
16	Internal Control and Audit Supervisor	Aviation Fuel Plc	Oil and Gas	Both internal and external reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS and require that internal reports comply with IFRS	FRCN monitors compliance and requires that internal reports comply with IFRS.	Benefits include improved quality of financial statements. Perceived benefits are more than the cost.	Staff are trained in house and go on outside training. Newly recruited chartered accountants and accounting graduates have a good knowledge of IFRS.
17	Chief Finance Officer	Transport Plc	Services	Both internal and external reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS but do not require that	Reports are sent quarterly to FRCN for review. Internal reports are not required by	Cost include actuarial valuation cost, cost of audit and staff training cost. Perceived	Staff are trained in-house.

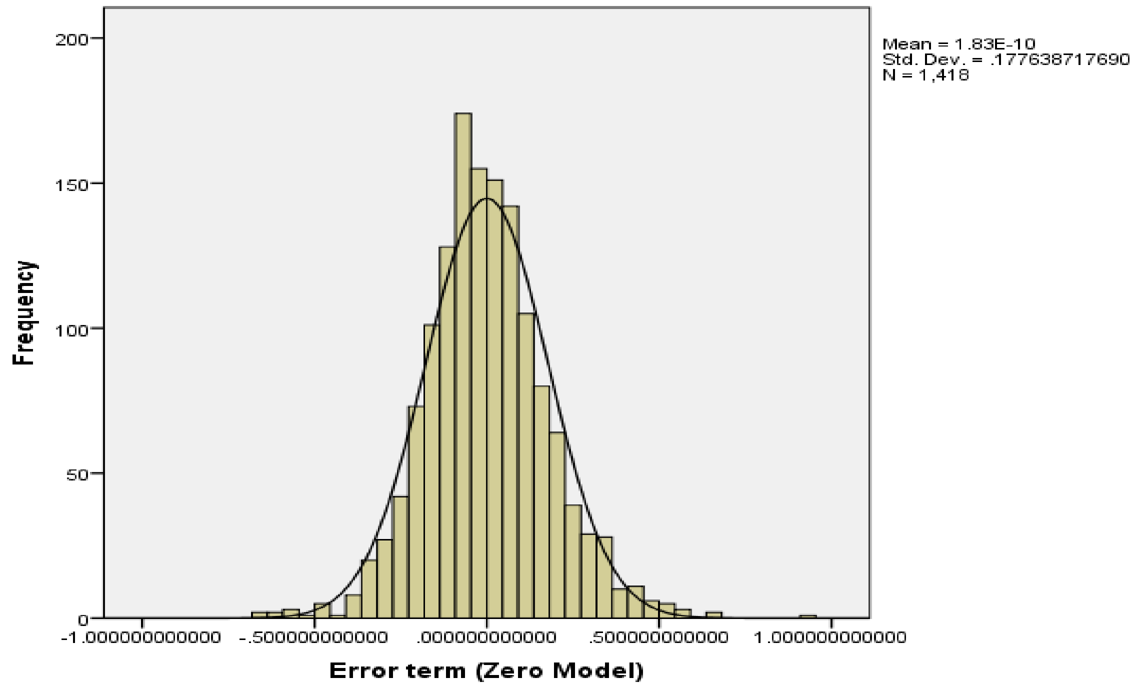
					internal reports comply with IFRS	FRCN to comply with IFRS. Monetary penalty and suspension of membership are imposed for non-compliance.	benefits are more than the costs.	
18	Deputy Manager	Printing Plc	Services	Both internal and external reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS and require that internal reports comply with IFRS	The FRCN reviews company's quarterly and annual accounts and imposes penalties for non-compliance	Benefits include segment reporting and full disclosure. Cost include training cost and higher cost of printing voluminous disclosures in annual accounts.	Staff are trained in house and go on outside training. Newly recruited chartered accountants and accounting graduates have a good knowledge of IFRS.
19	Chief Finance Officer	Fast Food Plc	Services	Both internal and external reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS and require that internal reports comply with IFRS	Company's results are regularly sent to FRCN for review and imposes monetary penalties for non-compliance. FRCN requires	Benefits include international acceptability of reports, increased foreign investment. Perceived benefits are more than the costs.	Staff are trained in house and go on outside training. Newly recruited chartered accountants and accounting graduates have a

						that internal reports comply with IFRS		good knowledge of IFRS.
20	Head of Internal Control and Audit	Logistics Plc	Services	Both internal and external reports comply with IFRS	External auditors qualify external reports if it does not comply with IFRS and require that internal reports comply with IFRS	Company's results are submitted to FRCN for review and imposes monetary penalties and possible withdrawal of FRCN certificate for non-compliance. FRCN requires that internal reports comply with IFRS	Benefits include friendlier financial statements and investors' confidence is guaranteed. Cost include training cost and IFRS accounting packages cost.	Staff go on outside training. Newly recruited chartered accountants have a good knowledge of IFRS.

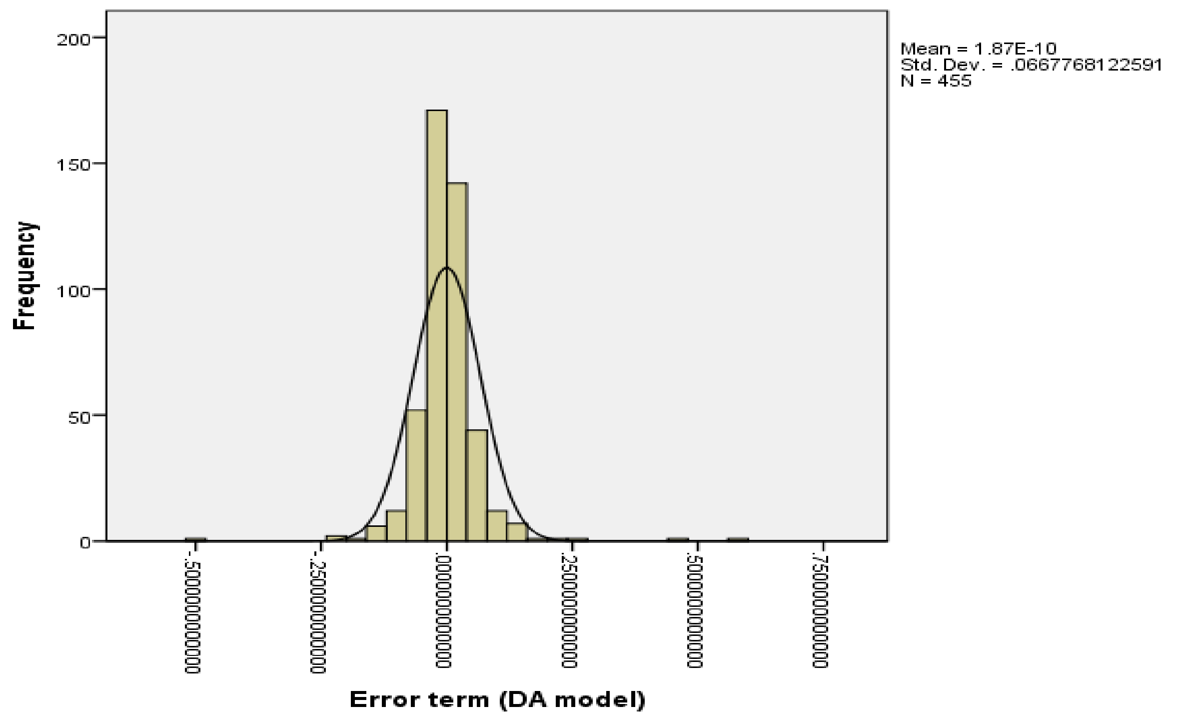
Appendix IV: Normal Distribution of the Residuals of the Regression Models



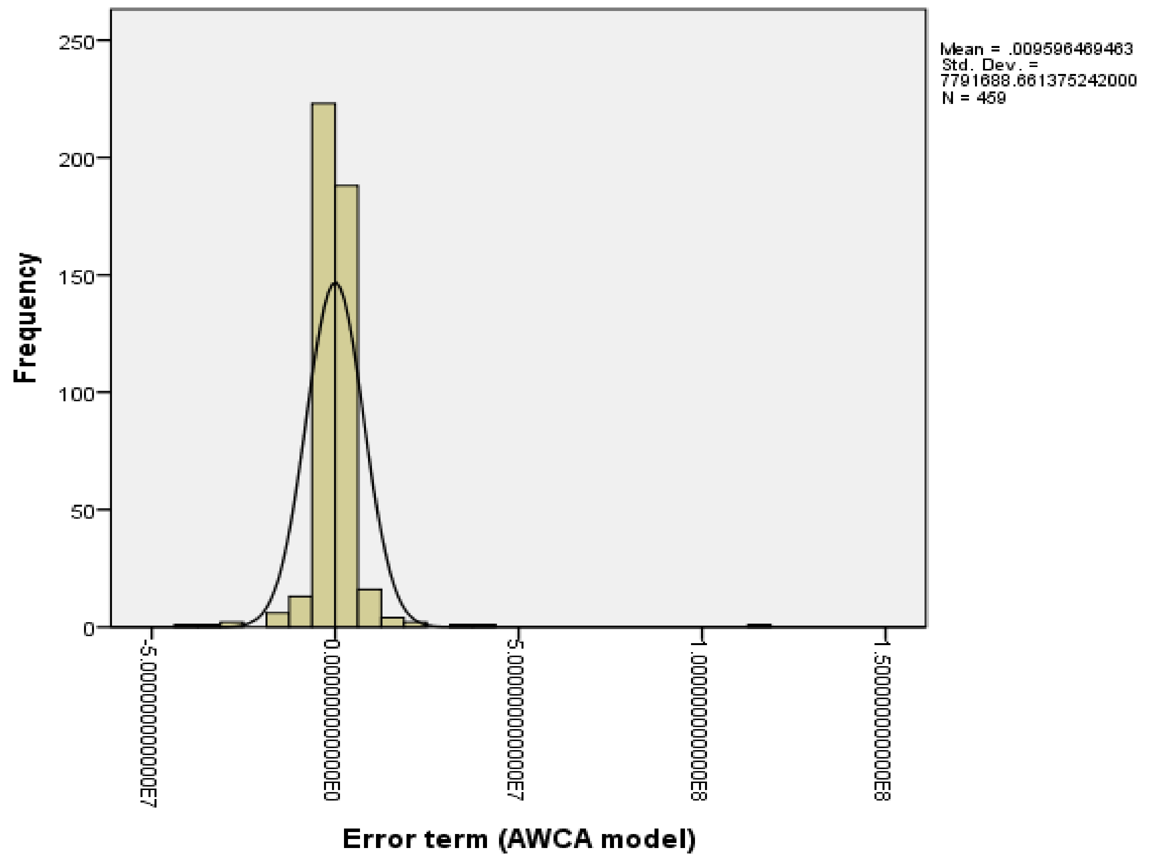




Mean = 1.83E-10
Std. Dev. = .177638717690
N = 1,418
Frequency
200
150
100
50
0
-1.000000000000
-.500000000000
.000000000000
.500000000000
1.000000000000
Error term (Zero Model)



Mean = 1.87E-10
Std. Dev. = .0667768122591
N = 455
Frequency
200
150
100
50
0
-.500000000000
-.250000000000
.000000000000
.250000000000
.500000000000
.750000000000
Error term (DA model)



Mean = .009596469463
Std. Dev. =
7791688.661375242000
N = 459
Frequency
250
200
150
100
50
0
-5.000000000000E7
0.000000000000E0
5.000000000000E7
1.000000000000E8
1.500000000000E8
Error term (AWCA model)

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