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VALUE RELEVANCE OF ACCOUNTING INFORMATION OF PRE-AND POST-ADOPTION OF IFRS AMONG NIGERIAN LISTED FIRMS

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ABSTRACT

The effect of International Financial Reporting Standard (IFRS) on the value relevance of accounting information in Nigeria has not been well researched. This study fills the gap in the body of knowledge by investigating the effect of IFRS on the value relevance of accounting disclosures among Nigerian listed firms over the period 2009 to 2013, which covered the periods before and after the adoption of IFRS. This study used a sample of 126 firms listed on the Nigerian stock market using price and return models. This study found statistically significant increase in value relevance after IFRS adoption for assets and liabilities and selected assets and liabilities (current assets, fixed assets, current liabilities, and non-current liabilities), accruals, and book value for both price and return models. Also, a statistically significant increase in value relevance was reported for book value, net income and operating expense under the price model.The findings on book value, earnings and dividends regression for both price and return models report a statistically significant increase after IFRS adoption. However, a decline in value relevance after IFRS adoption was reported for net income and operating expenses and selected net income and expenses under the return model.This study adds to the literature by providing empirically based conclusions on the effect of IFRS on the quality of financial reporting in Nigeria. Furthermore, the study contributes to the theory by investigating the application of efficient market hypothesis (EMH) to financial reporting in emerging economy. Also, this study will be useful to investors, policy makers, regulators and government concerning the effects of IFRS on financial reporting in Nigeria.

Keywords: Accounting disclosures, Nigerian, IFRS, NGAAP, value relevance

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ABSTRAK

Kesan Standard Pelaporan Kewangan Antarabangsa (IFRS) terhadap nilai relevan maklumat perakaunan di Nigeria tidak dikaji dengan mendalam. Kajian ini mengisi jurang dalam ilmu pengetahuan sabdum ini mengkaji kesan IFRS terhadap nilai relevan pendedahan perakaunan dalam kalangan firma tersenarai Nigeria daripada 2009 hingga 2013, yang meliputi tempoh sebelum dan selepas penggunaan IFRS. Kajian ini menggunakan sampel daripada 126 syarikat yang disenaraikan di pasaran saham Nigeria dengan menggunakan model harga dan model pulangan. Kajian ini mendapati peningkatan statistik yang signifikan dalam nilai relevan selepas pemakaian IFRS bagi aset dan liabiliti dan aset dan liabiliti terpilih (aset semasa, aset tetap, liabiliti semasa, dan liabiliti bukan semasa), akruan, dan nilai buku bagi kedua-dua model harga dan pulangan. Juga, peningkatan statistik yang signifikan dalam nilai relevan buku bagi dilaporkan untuk pendapatan bersih dan perbelanjaan operasi di bawah model harga dan pendapatan bersih dan perbelanjaan operasi terpilih (pendapatan faedah bersih, pendapatan operasi dan susut nilai dan perbelanjaan cukai) di bawah model pulangan. Walau bagaimanapun, penurunan statistik yang signifikan dalam nilai relevan selepas pemakaian IFRS dilaporkan bagi pendapatan bersih terpilih dan perbelanjaan yang beroperasi di bawah model pulangan. Walau bagaimanapun, penemuan mengenai pendapatan bersih terpilih dan perbelanjaan operasi di bawah model harga dan nilai buku, pendapatan, dan regresi dividen untuk kedua-dua model harga dan pulangan tidak melaporkan peningkatan statistik yang signifikan selepas pemakaian IFRS. Kajian ini menambah kepada karya dengan menyimpulkan secara empirik berdasarkan kesan IFRS terhadap kualiti pelaporan kewangan di Nigeria. Tambahan pula, kajian ini menyumbang kepada teori dengan menyiasat aplikasi hipotesis pasaran cekap alam laporan kewangan di ekonomi yang baru muncul. Selain itu, kajian ini berguna kepada pelabur, pembuat dasar, pengawal selia dan kerajaan mengenai kesan IFRS terhadap laporan kewangan di Nigeria.

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Kata kunci: pendedahan perakaunan, Nigeria, IFRS, NGAAP, nilai relevan

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LIST OF ABBREVIATIONS

Acronym	Meanings
ACCA	Associations of Certified Chartered Accountants
AICPA	American Institute of Certified Public Accountants
AISB	Associations of International Accounting Standard board
ANAN	Associations of National Accountant of Nigeria
BOFIA	Bank and Other Financial Institutions Act
CAMA	Company and Allied Matters Act
CBN	Central Bank of Nigeria
FASB	Federation of Accounting Standards Board
FRC	Financial Reporting Council
GAAP	General Acceptable Accounting Principles
IASC	International Accounting Standard Committee
ICAN	Institute of Chartered Accountants of Nigeria
IFRS	International Financial Reporting Standards
IOSCO	International Organisations of Security Commission
KPMG	One of the biggest professional services firms in the world
NAICOM	Nigerian Insurance Commission of Nigeria
NASB	Nigerian Accounting Standard Board
NGAAP	Nigerian General Acceptable Accounting Principles
NSE	Nigerian Security Exchange Commission
ROSC	Report on the Observance of Standards and Codes
SAS	Statement of Accounting Standards
UK	United Kingdom
US	United States of America

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

Demand for relevant accounting disclosures by users is increasing due to the growing complexity of business environments worldwide. Businesses continue to grow with more people participating in the stock market (Kasum, 2011) and comparing financial information between firms of different countries has become a significant issue for investors (Tarca, 2004). Therefore, value relevance accounting research has become significant with respect to emerging markets in order to compare accounting information with developed economies to encourage stock market investments. Hence, accounting disclosures in the companies should be relevant for capital markets to function effectively.

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Financial information must be relevant to be useful, and several organizations and scholars have defined what relevant means in this context. The ability to assist investors in making informed decisions is referred to as value relevance by Dimitropoulos and Asteriou (2009), and the ability to disclose information on financial statements that will capture firms and capture firm value is called value relevance (Păşcan, 2015). One basic attribute of financial statement quality is value relevance (Vijitha & Nimalathasan, 2014). According to Mironiuc, Carp, and Chersan (2015), the relevance of accounting

information is an important qualitative characteristic, regularly used to determine whether a relationship exists been accounting numbers and market value.

The International Accounting Standard Board (IASB) (2014) stated that financial information is only relevant if it is capable of making differences for users' decisions. Among the factors leading to such are that accounting information is relevant only when it explains stock price movement, evaluates the past and the future, and is presented without any bias (Prather-Kinsey, 2006). Thus, accounting information is value relevant once it can assist in predicting variables or can be used in a valuation model for those variables (Francis & Schipper, 1999b). Hence, the ability of one or more numbers to explain variations in stock prices (Francis, Olsson, & Schipper, 2006) and to also summarise valuable accounting information that may affect movements of stock prices is critical.

Accounting research on financial market grew after Ball and Brown (1968) produced an empirical study on stock price fluctuations and accounting information. Their seminal work inspired a string of studies presenting the relationship between stock market price and accounting measures. After their study, more research on value relevance were conducted on the relationship between accounting information with stock price and returns. These included: balance sheet disclosures on assets and liabilities, income statements, accruals, and earnings using the Ohlson (1995) and Easton and Harris (1991) models (Chen, Chen, & Su, 2001). However, these prior studies on value relevance focused on markets in the United States and the United Kingdom (Barth, Beaver, & Landsman, 1996; Barth, Braver, Hand, & Landsman, 1999; Barth, 1994; Elbakry, Jacinta, Hussein, & Tamer, 2017)

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The increasing significance of financial information for international markets led to more research investigating the value relevance of accounting information in non-developed markets outside of the United States (Amir, Harris, & Venuti, 1993; Collins, Maydew, & Weiss, 1997; Fuensanta, Pedro, & Juan, 2016; Graham, King, & Bailes, 2000), which were extended to emerging markets (Chebaane & Othman, 2014; Chen, Chen, & Su, 2001; Kadri, Aziz, & Ibrahim, 2009; Kargin, 2013a; Mironiuc, Carp, & Chersan, 2015; Umoren & Enang, 2015; Zeng, Guo, & Xiong, 2012; Păşcan, 2015). The results of this literature on these emerging markets provided different findings on the relevance of accounting information with respect local accounting standards and new accounting reporting standards for different countries and sectors.

Among the questions needed to be answered about these new standards is whether accounting information increased or decreased after the adoption of International Financial Reporting Standards (IFRS). This is particularly a question of interest in Nigeria (Omokhudu & Ibadin, 2015). Consequently, the need exists to determine empirically whether accounting information provided by firms in Nigeria has become more useful to investors in the post-IFRS period as compared to the pre-IFRS period.

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Some literature exists concerning the value relevance of accounting numbers in Nigeria. For example, Bagudo, Manaf and Ishak (2015), Omokhudu and Ibadin (2015), Omokhudu and Ibadin (2015b), Tanko (2012)and Umoren and Enang (2015) looked at the effect of IFRS on the value relevance of accounting information. However, the findings have been mixed and the methods have been varied. Bagudo, Manaf and Ishak (2015) studied book value and earnings for financial institutions, Omokhudu and Ibadin (2015)

looking at aggregated and disaggregated earnings and book value between 1994 and 2013 for 47 Nigerian listed firms. Omokhudu and Ibadin (2015b) considered book value, earnings, dividend and cash flows for 47 Nigerian firms. Tanko (2012a) reported on earnings managements and time loss recognition for 7 banks listed in Nigeria stock market. Umoren and Enang (2015) studied earnings and book value for 12 banks listed in Nigerian stock markets.

In order to understand whether IFRS adoption has had any effect on the value relevance of accounting numbers in Nigeria, a study of such relevance is important to explore. That is because the adoption and implementation of IFRS has been seen as a framework that will strengthen domestic firms, improve transparency, and expose any potential vulnerabilities in the economic health of a nation (World Bank, 2010). Adoption of IFRS provided a positive effect on information quality and use, the stock market, comparability and analyst ability to predict (Lourenço & Branco, 2015).In contrast, evidence have been provided that domestic financial reporting provided more value relevance than IFRS among Italian firms (Palea, 2014).

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Therefore, the current study examined the influence of IFRS on the value relevance of assets and liabilities, net income and operating expenses, and accruals and book value, and book value, earnings, and dividends of Nigerian listed firms by employing two equity valuation models of Ohlson model (1995) and Easton and Harris (1991). TheOhlson (1995) and Easton and Harris (1991)models suggested such and that this approach is consistent with Amir et al. (1993), Barth, Beaver, and Landsman (1996) and Venkatachalam (1996).

World Bank reports on the Observance of Standards and Codes (ROSC) in 2004 and 2010 ascribed the causes of market failure to Nigerian accounting standards weaknesses, with non-updates and non-full disclosures of accounting information, non-compliance with procedures, and improper presentations and publishing of financial reporting. This low-quality accounting information contributed to the lack of investments being brought in Nigeria and caused the stock market to experience the most serious decline in share price since the stock exchange was established in 1960.

As a result of the considerable disparity in economic efficiency and accounting quality between different nations, international financial reporting is an exciting field for investigating the economic costs of financial reporting (Soderstrom & Sun, 2007). In order to make adequate judgments and comparisons, international investors need similar financial reporting from countries competing for foreign direct investments (ROSC, 2011). Also, De George, Li and Shivakumar (2016) reported that majority of value relevance studies provided evidence of significant benefits of adopting IFRS to include 1) transparency improvement, 2) improvement of investment in cross-country, 3) lower cost of capital, and 4) providing better financial report comparability among firms. This requirement has led to the need for Nigerian firms to comply with international accounting standards.

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Several scholars argued that, once flexibility of international financial reporting allowing for differences in cultural, legal, and business practices within countries was accounted for, then a single set of accounting regulations could be important for developed and developing economies alike (Prather-Kinsey, 2006). For example, Hellström (2006) reported that value relevance studies examine the most significant attributes of accounting

quality and help close the gaps in the field of accounting research, particularly when they compare different accounting regimes in an economies under transition.

The Nigerian government has made several efforts since the Nigerian Stock Market (NSE) was established to develop accounting and financial reporting practices in the country. The regulatory acts responsible for ensuring that relevant accounting information is disclosed by Nigerian firms comprise the National Insurance Commission (NAICOM) Act of 1968, Company and Allied Matter Act (CAMA) of 1990, Nigerian Stock Exchange (NSE) Act of 1960, Central Bank of Nigeria Act (CBN) 2004, Bank and Other Financial Institutions Act (BOFIA) 2004, and Financial Reporting Council Act of 2011 (formerly, Nigerian Accounting Standards Board (NASB) Act of 2003). The NASB issued several accounting standards (SAS1 to SAS 32) from 1984 to 2009. In 2011 the Nigerian government announced that all listed firms in Nigeria were mandated to adopt IFRS with effective date of January 2012.

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1.2 Statement of Problem

The Nigerian financial reporting environment has witnessed multiple of laws and regulatory bodies for the regulations of accounting and auditing of firms requirements (World Bank, 2004). The sudden fall of the stock market has made investors lose confidence in the Nigerian capital market at various times, but especially during the period from 2008 to 2009. During 2009, the Nigerian Security and Exchange Commission (SEC), the Central Bank of Nigeria (CBN) and other regulatory bodies considered steps to improve the

disclosure of standards and financial reporting in Nigeria. This is because some International Accounting Standards (IAS) issued by the International Accounting Standards Board (IASB) are not considered under Nigerian General Acceptable Accounting Principles (NGAAP) and some NGAAP standards do not have similar standards under IAS(World Bank, 2011).

Although, Nigerian accounting standards have been adopted from IAS but have not updated like IAS. The Nigerian financial reporting environment before the year 2012 is guided by the Statement of Accounting Standards (SAS) which differs significantly with the IFRS. They differin term of presentation, measurements as well as disclosure requirements. The Nigerian SAS is based on historical cost accounting which is based on actual transactions while the IFRS is measured on fair value method. The fair value measurement provided evidence of more disclosures to investors and creditors, because it reflects the existing current market price of accounting numbers such as assets and liabilities.

Pressures to develop and improve financial reporting standards to meet with international capital market demands have been challenging for Nigerian firms. One challenging aspect of financial reporting in Nigeria was before the adoption of IFRS. During the period before the IFRS adoption in Nigeria, the main legal framework for the financial reporting was the Companies and Allied Matters Act (CAMA) of 1990; however, there were multiple accounting regulations, auditing and financial reporting requirements for firms. The collection of legislation in the CAMA provisions is voluminous because it includes auditing requirements, preparation, disclosures and publication of financial statements (World Bank, 2004).

The CAMA prescribes the format, content, and requirements of disclosures that should be stated in the financial statements of companies. In certain cases, CAMA requirements are not in compliance with either the International Accounting Standards (IAS) issued between 1973 and 2001 by the International Accounting Standards Committee or the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board from 2001 onwards (World Bank, 2004). The CAMA stated that instances in which the IAS/IFRS was in conflict with local standards, the local standard superseded.

Prior literature in value relevance research has presented mixed results on whether the value relevance of accounting information increased after IFRS adoption. The proponents of IFRS argues that, the measurement under IFRS are more value relevant than NGAAP because IFRS reports information that is up-to-date as well as consistent with market and it also takes account of the inflationary acquired cost adjustment. Therefore, in their studies they reported greater value relevance of accounting information after the adoption of IFRS(see., Alali & Foote, 2012; Chebaane & Othman, 2014; Schaberl, 2016). The Critics of IFRS argued that it increases instability and thus decreases stock price (Callao, Jarne, & Laínez, 2007;Kwon, 2014; Jun Lin & Chen, 2005; Van der Meulen, Gaeremynck, & Willekens, 2007). Others reported mixed reporting in similar environment, that IFRS reveals more disclosurethan NGAAP and also NGAAP provide value relevance of accounting information than IFRS(Elbakry et al., 2017; Gong & Wang, 2016;Palea, 2014).

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For instance, Elbakry et al (2017) reported decline in book value after IFRS adoption and increase in earnings management for UK and Germany study. The decline could be attributed to the reduction of information asymmetry among firms listed in both commonlaw and code law based EU countries. Gong & Wang (2016) provided evidence of decline in value relevance after IFRS adoption for Research and Development (R&D) expenses, the decline could be attributed lower investors protection for nine European countries. Palea (2014) conlcuded that IFRS do not provide any incremental value relevance of accounting information. In fact, Palea (2014) reported more value relevance of accountng information under domestic financial reporting among Italian firms. Therefore,the effect of IFRS on the value relevance of financial statements from the various literature, has been inconclusive(Okafor, Anderson, & Warsame, 2016)

Evidence in some studies have shown that accounting numbers under IFRS have better value relevance compared to domestic accounting standards (Alali & Foote, 2012). Other studies reported accounting information lost it relevance over a period of time (Dontoh et al. 2004; Francis & Schipper, 1999). Hence, exploring value relevance in the Nigerian capital market will be interesting for investors and other users because of the limited financial information currently available. Alali and Foote (2012) emphasised that studies on value relevance are interesting to investors for decision-making. In fact, Barth, Beaver, and Landsman (2001) believed that valuation models could both accommodate and be used to examine the effects of accounting conservatism.

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Despite the significance of the value relevance studies, in Nigeria the area has not been well researched. The studies conducted in Nigeria are basically on book value and earnings before the IFRS adoption(Tanko, 2012a). Tanko (2012) used the period of non-mandatory adoption of IFRS using six banks. The findings of the study reported decline in earnings management with an increase timeless recognition, and few studies after the IFRS adoption with mixed findings(Bagudo et al., 2015; Umoren & Enang, 2015). Bagudo et al. (2015) used 57 firms and reported incremental value relevance of book value and earnings after IFRS adoption. Umoren and Enang (2015) using twelve listed banks reported that book value and earnings are more value relevant after IFRS, but earnings reported greater incremental value relevance than book value after IFRS adoption.

Omokhudu and Ibadin (2015) provided evidence of mixed findings using 47 firms excluding banks and insurances for a period of 1994 to 2013. The studies do not differentiate between pre-and post-adoption of IFRS. Omokhudu and Ibadin (2015) found that earnings, cash flows and dividend are value relevant but book value was not statisticallysignificant. Similarly, Omokhudu and Ibadin (2015b) conducted another study using similar samples and periods for the aggregated and disaggregated book value and earnings. They reported disaggregated earnings and book value to be more value relevant than aggregated earnings and book value.

Although, value relevance studies were conducted in Nigeria but the studies are based on book value and earnings and components of book value and earnings. All the studies used smaller samples that excluded either financial or non-financial firms. The only study that shows the effect of IFRS among Nigerian studies is the Bagudo et al. (2015).

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This current study differs with other studies conducted on the effect of IFRS in Nigeria because, (i) all firms listed in Nigeria are considered for the study, (ii) this study also used differentdisclosure's that have been tested in Nigeria such as assets and liabilities, net income and operating expenses, and accruals with book value, and book value, earnings and dividends (iii) audit big 4 has been used in the study which literature shows have not been used in developing economy, (iv) the study use two regression models of stock price and return models as most of the studies in Nigeria used only stock price model, and (v) robustness test was also conducted in order to understand whether the effect of IFRS is not only from financial firms.

1.3 Research Questions

The above problem statement is steered by the following questions that were investigated in the present study. The general question for the study is, has value relevance changed or improved from the pre-IFRS (NGAAP) to post IFRS among Nigerian listed firms? More specific questions to be answered in this study are as follows:

1. Are disclosures related to book value of assets and liabilities more value relevant under IFRS than book value assets and liabilities disclosed under NGAAP among Nigerian listed firms?
2. Are disclosures related to income and operating expenses more value relevant under IFRS than income and operating expenses disclosed under NGAAP among Nigerian listed firms?

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3. Are disclosures related to book value and accruals under IFRS more value relevant than book value and accruals disclosed under NGAAP among Nigerian listed firms?
4. Are book value, earnings and dividends disclosed under IFRS more value relevant than book value, earnings and dividends disclosed under NGAAP among Nigerian listed firms?

1.4 Objectives of the Study

The issue regarding the study of value relevance of accounting disclosures in Nigerian context has not been conducted extensively on Nigerian firms after the IFRS adoption. Therefore, the main objective of this research is to determine whether value relevance changed or improved from the pre-IFRS (NGAAP) to post IFRS among Nigerian listed firms. The specific objectives of the study are:

1. To determine whether disclosures related to book value of assets and liabilities are more value relevant under IFRS than book value of assets and liabilities disclosed under NGAAP among Nigerian listed firms.
2. To determine whether disclosures related to income and operating expenses are more value relevant under IFRS than income and operating expenses disclosed under NGAAP among Nigerian listed firms.
3. To determine whether disclosures related to book value and accruals under IFRS are more value relevant than book value and accruals disclosed under NGAAP among Nigerian listed firms.

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4. To determine whether book value, earnings and dividends disclosed under IFRS more value relevant than book value, earnings and dividends, disclosed under NGAAP among Nigerian listed firms.

1.5 Significance of the Study

The World Bank report in 2010 indicated that Nigeria had one of the fastest developing economies in the world, with GDP growing by 9% in 2008 and exhibiting a relatively small decline of 8.3% 2009. In 2009, the Nigerian GDP was estimated to have been US$169 billion ranking the country's economy as the second biggest in Africa and 41st around the world. Unfortunately, however, its nominal per capita GDP was as low as US$1,140 in 2009. Recently, at the end of 2013, the equity market capitalisation of the country had grown bigger than 2008, with the adjudged the peak period being NGN13.23 trillion (USD82.80 billion) in 2013 compared NGN12.62 billion (USD80.20 billion) in 2008 (NSE, 2014). However, the role of accounting information in the country is little known in terms of its ability in providing justification for the changes in security market among the Nigerian firms listed on the stock exchange.

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The majority of the studies on the security market are from developed economies, which have markets regarded as being more sophisticated and efficient compared to those of developing economies (for example, Barth, Beaver, & Landsman, 1996; Dechow, 1994; Dhaliwal, Subramanyam, & Trezevant, 1999a; Subramanyam & Venkatachalam, 2007; Venkatachalam, 1996). Therefore, the present study on value relevance provided significant contributions to the understanding of accounting disclosures among Nigerian firms.

In addition, this study provided an important understanding of the behaviour of selected and aggregated assets and liabilities, net income and expenses, selected net income and operating expenses, accruals and book value and book value, earnings and dividends among Nigerian firms to users and investors alike. According to the report of NSE (2013), the growth of the Nigerian capital market in 2013 was outstanding.

This is because the Nigerian market together with the Athens stock exchange were ranked among the best top five by the World Federation of Exchange, directly behind Argentina's Buenos Aires Stock exchange and closed with an impressive 13.4% gain for the year. Among African capital markets, the Nigerian stock market was ranked first in yearly gains. This has provided evidence of the growth of Nigerian market.

Therefore, one conclusion of this current study is that increasing an understanding of accounting information would provide the country with an increased ability to spearhead the African region in its economic growth. Both foreign and local investors would be more willing to conduct business in Nigeria once the financial reporting meets the international requirements. This is because divergences in financial reporting practices concerning countries make it complex to evaluate and interpret financial statements of companies listed in different nations (Prather-Kinsey, 2006).

Therefore, the significance of this present study is summarised below:

1. Investors who have an interest in participating in the Nigerian market would have better prior knowledge of the market for investment decisions.

2. The study findings provided evidence for the testing of accounting theories in a developing economy in which the market is assumed to be either inefficient or weak efficient.
3. The results of the study provide information to standard setters, regulators, and the government to understand the need for better accounting information by investors in the country.
4. The study findings are also significant to the Financial Reporting Council of Nigeria as it will provide information to the board on how accounting information provided information for equity valuation in Nigeria using both the stock price and return models,
5. The study findings will provide additional information on the methodological use of stock price and return models in value relevance studies for an emerging economy particularly using scale effect as different results have been reported by the previous studies,
6. The present study will significant for Nigerian firms, investors, policymakers and Nigerian accounting standard setters by providing insights into the relationships between accounting disclosures and the stock market when they are aggregated, and disaggregated, and
7. This study finding has filled the literature gap by determining the value relevance of accounting information in emerging market by providing evidence of the significance of accounting numbers for investors, standard setters and regulators to use.

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The relationship between accounting disclosures and stock prices or returns is obviously the most interesting aspect of this current study not only for capital providers, but for policy makers with respect to the significance of accounting measures.

1.6 Scope of the Research

This study focused on the accounting disclosures prepared by Nigerian firms using domestic accounting standards during the period from 2009 to 2011 compared with those using IFRS standards from 2012 to 2013. The present study used the measurement approach covering annual reports to determine the relationship between accounting data and stock prices and returns among listed Nigerian firms in the Nigerian stock market. The approach has been adopted in several value relevance studies, for example, Ali and Hang (2000) and Hellström (2006)

The basic aim of this study was to determine the relationship between accounting disclosures and stock prices and stock returns among Nigerian firms. The data for the objective one of the study were assets and liabilities and selected assets and liabilities. To meet the second objective, the study used net income and operating expenses and selected net income and operating expenses. Book value and accruals were used to achieve objective three. Book value, earnings, and dividends data were used to achieve objective four. All data collected were analysed using stock price and stock return models.

The study covered all firms listed on the Nigerian stock exchange that traded from 2009 to 2013. The companies in Nigeria for the study were divided into non-financial and financial firms for the purposes of data collection and analysis.

Data for the study were collected from three sources: 1) Thompson Reuters DataStream for non-financial institutions(total assets and total liabilities, operating expenses, depreciation and tax expenses, cash flows from operations, book value and dividend),2) Bank Scope DataStream for financial institutions (total assets and total liabilities, operating expenses, depreciation and tax expenses, cash flows from operations, book value and dividend), and 3), hand-picked from annual reports such as net income before extraordinary items,current assets, current liabilities and non-current liabilities, net interest income, operating expenses, were collected from the annual reports. The reasons for collecting such data from annual report are because of the adjustments from the annual reports. However, stock prices for all the firms were collected from Thompson Reuters DataStream.

1.7 Organisation of the Thesis

In summary, this thesis organisation is in six chapters.

Chapter one: This chapter discusses the general backround of the suydy. The chapter introduces the backaground of the study, statement of problem, rserach questions, 17iberatives of the study, scope of the study, and significance of the study.

Chapter two: This chapter provides Nigerian financial reporting environment. The chapater contains the financial reporting councils, international financial reporting standards, the Nigerian statement of accounting standards, accounting regulatory bodies. Accounting professisonal institutions operating in Nigeria, the development of Nigerian stock maket and last summary of IFRS and NGAAP.

Chapter three: This chapter reports, literature review of the study. In the chapter, capital market studies, studies on value relevance, hypothesis development. Literature gap are discuss

Chapter four: This chapter has the methodolical approach to the study. In the chapter, all the techniques adopted for the research are discuss.

Chapter five: This chapter reports the study discussions and results of the research.

Chapter six: This chapter provides the conclusion of the study. The overview of the study, summary of the results, the study gap and further studies are discuss

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CHAPTER TWO

NIGERIAN FINANCIAL REPORTING ENVIRONMENT

2.1 Introduction

This chapter describes the Nigerian financial reporting environment. Section 2.2 Nigerian financial reporting environment that include, Financial Reporting Council, international financial reporting standards, international accounting standards, companies and allied matter act off Nigeria, Nigerian accounting standards, central bank of Nigeria, bank and other financial institution act, the Nigeria insurance companies. Next Section 2.3 the professional institution of Nigeria consists of institute of chartered accountants in Nigeria and association of national accountants of Nigeria. Following is section 2.4 is the Nigerian stock market development. Section 2.5 is the summary of the differences between IFRS and NGAAP, and lastly section 2.6 conclusion of the chapter.

2.2 Nigerian Financial Reporting Environment

The origin of Nigerian financial reporting dates to the period of the British colonial masters. Due to the shortage of funds to run the local administration in the colonies, the colonial masters looked for other sources of funds. Most these funds were derived from products from marketing, agriculture and solid mineral output (Osazie, 2007). However, due to inadequate revenue generated from those sources, the colonial masters decided to

expand the revenue base through taxation and other payments. As the revenue was not enough to cover the administration costs, funds were raised from the public sector on a short-term basis to meet the deficiency of the available funds. Consequently, managers found the need for financial reporting system as a check-and-balance in the administration as was done in the British system (Osazie, 2007). Thus, the financial reporting patterns in Nigeria had the same accounting system as the British in the early years of financial reporting.

The British government established the first commercial bank, Barclays Bank in Lagos in 1917 (now known as, First Bank of Nigeria Plc) for money transactions and deposits in Nigeria. On 30 May 1969, the bank was locally incorporated as wholly owned Barclays Bank (DCO) subsidiary in Nigeria. By 1976, the government of Nigeria had taken over a 60% controlling interest and thereby, leaving 40% to Barclays.

The Central Bank of Nigeria (CBN) was established in 1958 as an act (amended) and the Banking Decree of 1969 (as amended) was promulgated that constituted the legal framework under which CBN regulates and operates banks to regulate the banking sector in the country (CBN, 2009). Given the growth of businesses in the country, a Capital Issues Committee was established in 1962 as a committee under the CBN to assess the application of businesses seeking to participate in the capital market.

Subsequently, financial reporting was established with the setting up of the Institute of Chartered Accountants of Nigeria (ICAN) or formerly known as the Relationship of Accountants of Nigeria (AAN). This relationship of accountants was first established on

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1st September 1960 with the aim of training accountants in Nigeria by the Nigerian professional members who had studied and practiced in the United Kingdom (UK) with Nigerian practicing accountants. On 28th September 1965, the Relationships of Accountants of Nigeria (AAN) was recognized by an Act of Federal Parliament number 15 of 1st September 1960 and renamed ICAN in 1965. Historically, ICAN is the first body to establish an accounting regulatory body in 1965 known as the Nigerian Accounting Standards Board (NASB) as a unit responsible for accounting regulations by its members.

The NASB issued first accounting standards as Statement of Accounting Standards (SAS1 and SAS2) in 1984 before it was taken over by the government from ICAN. The takeover was an attempt to ensure government control and quality financial reporting in the country (Kantudu, 2011). Nigerian domestic accounting standards were adopted from International Accounting Standards (IAS), although the standards were adopted from the IAS with little modifications (Regan 2003). The NASB was taken over by the Nigerian government in 1985, and the board issued a significant number of standards. The major turning point was the establishment of the Companies and Allied Matters Act (CAMA) of 1990 that regulates a company's incorporation and incidental matters in Nigeria. After the financial crisis of 2008-2009, the Nigerian economy witnessed 21iberalcant changes in financial reporting. Despite the problems witness by the economy, foreign investors continued to have confidence in the Nigerian capital market during the period (Okerekeonyiuke, 2010).

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Various regulatory agencies from both the private and public sectors ensure compliance with accounting regulations in Nigeria. These regulatory agencies have been mandated by legislation and laws to act as government agents in ensuring quality financial reporting. These include the:

1. Financial Regulation Council (FRC) (Formerly NASB 2003) established by Act No. 54 of 7th June 2011;
2. Nigerian Accounting Standard Board Act (2003);
3. Nigerian Insurance Act (2003);
4. Security and Exchange Commission Rules and Regulations (1999);
5. Investment Security (1999);
6. Relationship of National Accountants of Nigeria Act (1993);
7. Bank and Other Financial Institutions Act (1991);
8. Company and Allied Matter Act (1990);
9. Nigerian Deposit Insurance Corporation Act (1998);
10. Institute of Chartered Accountants of Nigeria Act (1965); and
11. Nigerian Security and Exchange Commission Act (1961).

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These regulatory bodies have been largely involved in changing and improving accounting regulations, market conditions, and strengthening the relationship between financial institutions and laws and regulations in Nigeria. The NASB, which was the pioneer for setting accounting standards in Nigeria since 1984, was replaced by the Financial Reporting Council Act of 2011 (FRC) as a requirement for an independent regulatory body to meet IFRS adoption.

2.2.7 Financial Reporting Council(FRC)

The Financial Reporting Council (FRC) of Nigeria, formerly known as the NASB, is charged with the power of setting accounting regulations in Nigeria. The NASB was established on 9th September 1982 as a unit of the ICAN to issue and prepare domestic accounting standards in Nigeria for financial reporting by its members. Nigerian accounting standards were first issued in 1984 by NASB for financial reporting. Thus, although the NASB had been in existence for many years, the legal framework for the establishment of the Board was formally approved by an Act of Nigerian Parliament on 10th July 2003. The NASB issued 32 accounting standards from 1984 to 2004 for a company's financial reporting in Nigeria. The Committees established by the Nigerian government (World Bank, 2011) suggested the establishment of the FRC as well as the adoption of IFRS for financial reporting.

The establishment of an autonomous accounting regulatory body in Nigeria devoid of any interference by the government was seen as a welcome development (Egwuatu, 2010) to

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improve the economic development of Nigeria (Nnadi, 2010). In addition, adoption of IFRS was valuable in addressing the weakness of financial reporting in the country (Ebulu, 2011). Jim Osayande Obazee, the Executive Secretary of NASB, supported the adoption of IFRS, saying that Nigeria should not ignore the benefits of a global inter-linked trend in financial reporting (Obazee, 2011). Members of the Board also emphasised the need for regulations and laws not in conformity with IFRS to be abrogated, to enjoy the advantages of compliance with the standards. Obazee believed that the failure to recognize the establishment of the FRC would put Nigeria at a disadvantage (Obazee, 2011). Subsequently, the government of Nigeria approved the formation the FRC Board as an independent boardfor the regulation of accounting laws and regulations under the FRC Act 2011. However, foreign banks and other multinational had been preparing two financial reporting standards based on the Nigeria Statements on Accounting Standards (SAS) and IFRS (optional) before the mandatory adoption of IFRS (for instance, Diamond Bank, Standard Chartered Bank, Zenith Bank, and Total Nigeria).

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The passing of the FRC Act was the result of the recommendations presented in various reports of committees, i.e., the World Bank in 2004 and 2011 and also the Committee for the roadmap to the adoption of IFRS, to have harmonised financial reporting in the country. In 2008, the European Union (EU) pointed out the need for adopting or adapting to IFRS by developing countries by 2008. However, only South Africa and Mauritius had adopted IFRS in Africa by year end. These countries were, therefore, recognized by the

EU. Ebulu (2011) stated that the adoption of IFRS and establishment of FRC would provide the best approach for accounting regulations and report practices, like in the United Kingdom's, Chinese, Australian and Malaysian economies.

In Nigeria the use of IFRS is a universal reporting standard that has gain momentum worldwide forcing more countries to adopt the standard or coverage from their local standard to new standard which Nigeria set the road map January 2012 for all listed firms(Odia & Ogiedu, 2013a). Therefore, the Minister of Trade and Investment, Olesegun Aganga of the Federal Republic of Nigeria in 2013, at the 10th annual FRC summit held in Lagos

"*Adoption of IFRS has enhanced the perception of Nigeria in the the international community"*(Komolafe, 2013 p 23)

2.2.2 International Financial Reporting Standards (IFRS)in Nigeria

Nigeria adopted IFRS for all listed firms effective on 1 January 2012 to meet the need for global compliance with IFRS adoption. The adoption of IFRS was due to the expansion and growth of global markets, and the need for multinational companies to have one set of accounting standards for financial reporting. In 2002, the IASB and FASB (the United States' standards setter) signed the Norwalk Agreement (Memorandum of Understanding). This Agreement pronounced the commitment to have a single set of quality regulations to improve efficiency, decrease costs and produce better financial information for investors. From 2005 onwards, most countries, especially those from the EU, began to

implement IFRS for listed companies. New Zealand, Israel, and Australia also adopted the IFRS as their national standards. Brazil and Mexico commenced adoption in 2010 and 1st January 2011respectively. Several key issues were embarked upon by the FASB and IASB in 2006 to produce more IFRS regulations. Two major actions were implemented by the US SEC to ensure speedy convergence from General Acceptable Accounting Principles (GAAP) to IFRS in 2007.

Odia and Ogiedu (2013a) reported that IFRS has been a universal language for financial reporting as such Nigeria mandated all listed firm in the year 2012 to make their financial reporting based on IFRS. The adoption of IFRS for all listed firms in Nigerian commenced from the January 1, 2012 for all listed firms in Nigeria. Other publically listed firms commenced from January 1, 2013 and Small and Medium Enterprises from January 1, 2014. The FRC published on its website in the year 2011 regulatory guidance to provide certain election when using IFRS 1First time-adoption of IFRS. The requirements for the regulatory guidance are for all entities to provide unreserved and explicit compliance with the IFRS in their financial reporting.

The IASB developed 16 standards for IFRS in 2005 with continued updates and development of new standards continuing onward 2016. Most of the IAS has now been replaced by IFRS by the IASB for easy, convenient and global reporting. According to Ball (2001), the IFRS presented a high-quality financial reporting and disclosure system in public financial statements.

The following IFRS were issued by the IASB as follows:

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1. IFRS 1−*First-time Adoption of International Financial Reporting Standards* issued June 2003. The first IFRS was issued by the IASB known as IFRS first-time adoption of IFRS with an effective of commencement 1 January 2004.
2. IFRS 2−*Share-Based Payments* issued February 2004 with a commencement date beginning on or after January 1 2005.
3. IFRS 3−*Business Combinations* issued 10 January 2008 with a commencement date beginning or after January 2009.
4. IFRS 4−*Insurance Contracts* issued 31 March 2004 beginning or after January 2005.
5. IFRS 5−*Non-Current Assets Held for Sale and Discontinued Operations* issued 31 March 2004 beginning or after January 2005.
6. IFRS 6−*Exploration for and Evaluation of Mineral Resources* issued 9 December 2004 beginning or after January 2006.
7. IFRS 7−*Financial Instrument Disclosure* issued 18 August 2005 beginning on or after January 2007.
8. IFRS 8−*Operating Segments* issued 30 November 2006 beginning on or after 2009.
9. IFRS 9−*Financial Instruments* issued 24 July 2014 beginning on or after January 2018.
10. IFRS 10−*Consoludated financial Statement* issued 17 December 2015 beginning on or after January 2016.
11. IFRS 11−*Joint Arrangement* issued July 2011 beginning on or after January 2013.

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12. IFRS 12−*Disclosure of Interest and Other entities* issued May 2011 beginning on or after January 2013.
13. IFRS 13−*Fair Value Measurement* issuedMay 2011 beginning on or after January 2013.
14. IFRS 14−*Regulatry Deferral Accrual* issued January 2014 beginning on orafter-January2016.
15. IFRS 15−*Revenue from Contract with Customer* issued 28 May 2014 beginning on or after 1 January 2017.
16. IFRS 16−*Leases* issued 13 January 2016 beginning on or after January 2019.

The IFRS was reported to have more provisions for more disclosures than the Nigerian domestic financial reporting did. Major disclosures reported in the IFRS include: 1) components of financial statements, (as stated in IFRS1, comprising financial position, statement of comprehensive income, income revolutions gains or loss in financial instrument and foreign exchange translation, statement of cash flows, statement of change in equity and notes to the accounts as in IAS 1), 2) income statement presentations, (as prescribed in IAS 1 on format and structure of income statement presentation), 3) cash flows statement (for all entities to present), 4) fair value of financial Investment Security using IAS 39 through profit and loss account, 5) financial assets (as classified under IAS 39), 6) assets (measured at fair value except loans and receivables), 7) liabilities (are measured at amortised) 8) depreciation method change (treated as change in accounting estimates), 9)

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evaluation of plant, property and equipment (all assets in the same class must be evaluated), 10) net fees and commissions (accrued interest income classified using effective interest rate (EIR)[1], 11) goodwill treatment (is not amortised but tested in accordance with IAS 39), 12) intangible assets recognition (are measured and recognised at either cost or re-valued), 13) foreign currency translation (the differences in the foreign currency translation are shown a component of other comprehensive income), 14)net gains or losses on financial assets held for trading (they are held for trading either for selling or repurchasing period), 15) income tax expenses (this is amortised to staff expenses over loan life), 16) deposits (amortised to staff expenses over loan life), and 16) fair value available for sale financial asset (financial liabilities amortised cost included in interest accrued as in IAS 39 recognised in other comprehensive income and transferred to fair value reserve in statement of financial position). A major summary of distinctive differences between NGAAP and IFRS is provided in Table 2.1

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2.2.3 Nigerian Accounting Standard (Statement of Accounting standards (SAS) versus IFRS

Although all listed Nigerian firms have moved to prepare their financial reporting based on the IFRS effective 2012, Nigerian accounting standards played an important role in

[1] Diamond bank defined EIR as the rate that exactly discounts the cash flows to zero.

ensuring that financial statements are being prepared in accordance with rules and regulations. Therefore, an understanding of the accounting standards in Nigeria is important as the study covers both the old standards and new standards. Several areas of financial reporting have not been covered by Nigerian financial reporting, even though the majority of the standards were adopted from IAS. The financial reporting standards in Nigeria as reported by the World Bank in 2011 have not been updated since they were adopted many decades ago. In addition, current IAS standards have either been updated or withdrawn afterwards (World Bank, 2004).

The Nigerian Statements of Accounting Standards (SAS) seem not only incomplete but heavily dependent on CAMA 1990 for the financial statements of Nigerian firms. Although financial reporting standards of Nigeria were adopted from IAS, several standards do not have corresponding standards under SAS(World Bank, 2011). For instance, IAS 18 Revenue, IAS 22, Business Combinations, IAS 20, Accounting for Government Grants and Disclosure of Government Assistance, IAS 24, Related Party Disclosures, IAS, 27, Consolidated Financial Statement and Accounting for Investment in Subsidiaries, IAS, and 23 Borrowing Cost. The treatment of financial assets under the disclosure of assets for IAS 32 been replaced by IFRS 7, Financial Instruments: Disclosure and Presentation that was effective before the adoption of IFRS. Also, Standard IAS 39, Financial Instruments: Recognition and Measurement as well as the IAS 36, Impairment of Assets were not in use by the firms in Nigeria before the adoption of IFRS. This is because CAMA supersedes other standards that are not domestic standards (World Bank, 2004). Table 2.1

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provided major differences between Nigerian SAS and IFRS before the adoption of IFRS(Decemeber 2011).

The number of financial reporting standards that the NASB has promulgated since its establishment in 1982 number 31 including: 1) SAS 1 Disclosure of Accounting Policies, 2) SAS 2 Information to be Disclosed in Financial Statements, 3) SAS 3 Accounting for Property, Plant and Equipment, 4) SAS 4 Stocks, 5) SAS 5 Construction Contracts, 6) SAS 6 Extraordinary Items and Prior Year Adjustment, 7) SAS 7 Foreign Currency Conversions and Translations, 8) SAS 8 Accounting for Employees Retirement Benefits, 9) SAS 9 Accounting for Depreciation, 10) SAS 10 Accounting for Banks and Non-Banks Financial Institutions (Part I), 11) SAS 11 Leases, 12) SAS 12 Accounting for Deferred Tax, 13) SAS 13 Accounting for Investments, 14) SAS 14 Accounting in the Petroleum Industry: Upstream Activities, 15) SAS 15 Accounting for Banks and Non-Banks Financial Institutions (Part II), 16) SAS 16 Accounting for Insurance Companies, 17) 5 SAS 17 Accounting in the Petroleum Industry: Downstream Activities, 18) SAS 18 Statement of Cash flows, 19) SAS 19 Accounting for Taxes, 20) SAS 20 Abridge Financial Statements, (21) SAS 21 Earnings Per Share, 12) SAS 22 Research and Development Costs, 23) SAS 23 Provisions, Contingent Liabilities and Contingent Assets, (24) SAS 24 Segment Reporting, 25) SAS 25 Telecommunications Activities, 26) SAS 26 Business Combinations, 27) SAS 27 Consolidated and Separate Financial Statements, 28) SAS 28 Investments in Associates, 29) SAS 29 Interests in Joint Ventures, 30) SAS 30 Interim Financial Reporting, and 31) SAS 31 intangible Assets.

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SAS major accounting disclosures with the regard to reporting include: 1) components of financial statements that constitute the balance sheet, profit and loss account, cash flows, value added statements and five-year financial summary with notes to the account, 2) format for income statement presentation (as prescribed under CAMA 1990 and Bank and Insurance Acts, 3) cash flows statement format (applicable for listed firms only), 4) fair-value of financial investment security (classified as short-term or long-term investments, 5) financial assets (all under assets), 6) assets treated either at short term for investments measured at market value or at lower cost, 7) liabilities like deferred tax income or measured carrying amount of assets and liabilities, 8) depreciation method change (treated as change in accounting policy), 9) revaluation of plant, property and equipment (not all assets are to be revalued in some cases) 10) net fees and commissions (all credit fees are classified to interest income), 11) short-term investment (this are recognised to be part of the trading income or losses in the income statement), 12) goodwill measurement (required in SAS9 amortised over years), 13) intangible assets recognition (measured at cost or revalued), 14) foreign currency translation (shown in the face of income statement), 15)net gains or losses of financial assets held for trading (they are not categorised as financial instruments, 16) income tax expenses (they are at concessionary rate), 17) deposits (exclusive of all interest accrued that are payable), and 18) fair value available for sale of financial assets (shown on the face of net income statement. Table 2.1 provides a summary of the differences between NGAAP and IFRS.

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2.2.4 International Accounting Standard Board (IASB)

The International Accounting Standards Committee (IASC) was developed in 1973 in order to address the pressing need to have financial reporting by smaller nations that could establish their accounting systems. The International Accounting Standards (IASB), which replaced the IASC in 2001, developed high-quality single acceptable financial reporting that was understandable and enforceable among countries (Chebaane & Othman, 2014a). Funding of the IASC was done by the United States, the United Kingdom, Australia, Canada, Germany, The Netherlands, Japan, France, and Mexico, as a private partnership (Non-Governmental Organisation) (Kirsch, 2012).

Nigerian domestic accounting standards SAS are partially from the old IAS, which have been updated, amended or even withdrawn by the IASB. The SAS major problem was that, it does not cover majority of the financial reporting encountered by the financial statement prepares as reported by PWC in 2011.

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Because IFRS refers to series of financial reporting pronouncement eastablished by IASB, it assist the preparers of accounting reporting, all the over the world, present and produce a high quality, comparable and transparent financial reporting. Prior to the IFRS, in Nigeria, financial reporting of firms are drawn up based on the CAMA laid down requirements an pronouncement by the NASB(World Bank 2011). These requirements of the CAMA are, in majority cases are grounded on 33iberalization issued prior by the IASB, but not essentially in compliance with the present pronouncemenst of the IASB(for instance,

some financial instruments requirement are to be reported and measured based on fair-value under IASB guidelines, while NGAAP required their measurements based on historic cost). Threfore, the adoption of IFRS, Nigerian reporting fims would report based on the framework adopted by their peers all over the world to ensure the relevance of financial reporting in the international arena. Furthermore, the wider precission of IFRS financial reporting by entities would improve reorting comparability and could possibly increase in the development of the transparent and relevant financial reporting.

The IASB has fifteen members who are selected based on their professional background and technical skills from those countries. The board focused on the improvement and development of a high quality set of standards to encourage global harmonization of accounting (Paananen & Heghsiu, 2009). Funding was provided to ensure that IASB has enough resources for the transition to IFRS. The IASB has a structure similar to the United States' Financial Accounting Standards Board (FASB), with about four Americans on its board. One primary duty of the IASB is to issue uniform accounting regulations for member countries. At the same time, the Board reports its activities to the IASC foundation.

In the United State, the American Securities and Exchange Commission (SEC), being a very important body for the development of financial reporting over the years, has served as a basis for offering cross-border financial reporting. The Commission noted several cases in which companies wishing to raise capital in other countries were faced with the threat of having multiple financial reporting standards to comply with. The SEC of US

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gave foreign businesses in the United States the option of preparing their financial statements in compliance with the IFRS instead of GAAP in November 2007. In addition, the SEC of US made a further clarification by giving public companies the option to use IFRS in place of American GAAP. With the update to Rule 203 by the Relationship of International Certified Public Accountants (AICPA) on the Code of Professional Conduct by the Council in 2008, the IASB has been recognized as a standard-setter for international regulations and companies in the United States are given the option to use the standards (AICPA, 2008).

2.2.5Companies and Allied Matters Act (1990)

The Companies and Allied Matters Act of 1990 provided for the incorporation, registration of the business names, incidental matters, the incorporation of companies, relationships, and certain matters of companies through the Corporate Affairs Commission (CAC). Part 11 of the CAMA act provided a schedule for company incorporations and formation. It specified the rights from the company, partnership formation and the number of the persons a company must have before operations. The act prescribed the content and format of a firm's financial statement and the requirements needed for disclosures. In some cases, CAMA has requirements that are not in line with either the IAS or IFRS (World Bank, 2004). The act requires financial statements to be in compliance with the Statement of Accounting Standards (SAS) issued by the NASB and that the audit should be in done in accordance with Generally Accepted Auditing Standards (GAAD).

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The Act further required that an audited financial statement should be submitted to the CAC, within 42 days of the company's annual general meeting and the audited financial statement publication must be promulgated by all public limited liabilities companies in a minimum of one national daily newspaper. The CAMA has more voluminous provisions than any other regulatory acts, which include auditing, preparation, publication and disclosures requirements of financial statements (World Bank, 2004). The CAMA provided for the CAC to ensure and monitor compliance with requirements with specific penalties. In the case of a company's loss or damage as a result of an auditor's negligence in failing to discharge properly his fiducial duty, the auditor will be liable for negligence (CAMA, 1990).

2.2.6 Central Bank of Nigeria Act (CBN)

To cater to the demand to have a viable banking environment and to improve financial transactions in Nigeria, the colonial masters in the periods of 1892 to 1952 provide for banking practice in Nigeria. This enquiry was the basis for the Banking Ordinance Act of 1952. This Act was legislated to ensure 36iberaliz commercial banks and avert creation of non-viable banks. In 1958, the House of Representative received draft legislation for the establishment of the CBN. The House passed the legislation on 1st July 1959, for the Banking Act of 1969 for CBN to become fully operational. This act created a legal framework for the operation and regulations of banks in Nigeria. Greater activities on financial 36iberalization and de-regulatory measures were witnessed following the acceptance of the Act (CBN, 2013). However, the government

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adopted the Structural Adjustment Programme (SAP) that gives opportunity for additional banks and other financial institutions in the country in the year 1986.

In order to strengthen and improve the power of the CBN to cover new institutions, the Banking Act of 1969 was substituted by the Banks and Other Financial Institutions Act (BOFIA) in 1991. The New Act (BOFIA) has additional institutions that were not covered by the Banking Act of 1969, and therefore, improved the efficiency of the CBN. In addition, power of the CBN under BOFIA improved the efficiency of the bank operations (CBN, 1991). This gave CBN more power over supervision of banks, efficient monetary policy, regulation of banks and non-bank financial institutions. Subsequently, the government of Nigeria in 1997 striped the autonomous power of CBN by replacing BOFIA with Act no 4 of 1977. Between the periods of 1989 to 1996, many banks were declared distressed, declining from 52 to 47 in number in 1997.

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The CBN played a formidable role in the economic development of Nigeria, especially in the areas of banking and compliance with the relevant reporting standards. However, the banking industry has undergone a lot of transformation and changes both in policies and operations. Banking consolidations of 2004 further reduced the number of banks to 25 from 89 in 2003, creating a more competitive and healthy economic environment in Nigeria (CBN, 2005), with the growth in the banking industry (Appah & Sophia, 2011).

Moreover, the bank has been active in development of capital and money markets in the country. The bank's supervisory roles have brought about discipline in the financial markets, banks and other financial institutions in Nigeria. In continuation to the roles of CBN, the bank in 1960 introduced the first treasury bills into the financial market, introduced the Lagos stock exchange in 1961 and issued the first treasury certificates in 1968. The bank established a capital issue unit known as the Security and Exchange Committee in 1970 within the bank, which later become the Nigerian Security and Exchange Commission (NSEC).

Subsection 2 of the CBN Act of 2007 states the main objectives of the bank to include: (i) to ensure monetary and price stability; (ii) to issue legal tender currency in Nigeria; (iii) to maintain external reserves to safeguard the international value of the legal tender currency; (iv) to promote a sound financial system in Nigeria; and (v) to act as banker and provide economic and financial advice to the federal government.

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The CBN's supervisory role is classified into three departments: (i) Financial Policy and Regulations Department: that will ensure stability in the financial system; (ii) Banking Supervision Department: that handles discounting houses and deposit money banks; and (iii) Other Financial Institutions Supervision Department: for the microfinance banks, bureau-de-change and other finance houses

2.2.7 Banks and Other Financial Institutions Act (BOFIA)

To cater to the demand for a viable banking environment and to improve financial transactions in Nigeria, the colonial masters in the periods of 1892 to 1952 provided for banking practice in Nigeria. This basis formed the foundation for Nigeria's Banking Ordinance Act of 1952. The Act provided for the organization of commercial banks to avert the creation of non-viable banks. In 1958, the House of Representative received draft legislation for the establishment of the CBN. The House passed the legislation on 1st July 1959, enabling the Banking Act (BA) of 1969 to make the CBN fully operational. This act created a legal framework for the operations that regulate banks in Nigeria (CBN, 2009). Greater activities for financial liberalization and deregulatory measures followed (CBN, 2013). For example, the government adopted the Structural Adjustment Programme (SAP) that gave an opportunity for the creation of additional banks and non-banks financial institutions in Nigeria in 1986.

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In order to strengthen and improve the power of the CBN to cover new institutions, the BOFIA Act of 1991 was passed. The new Act allowed for the incorporations of additional institutions that were not covered by the Banking Act of 1969, and therefore, improved the efficiency of the CBN. In addition, the power of the CBN under BOFIA improved the efficiency of the bank operations (CBN 1991). This gave the CBN more power over supervision of banks, the ability to create efficient monetary policy, and additional powers to regulate banks and other financial institutions. Subsequently, in 1997, the government of Nigeria improved the autonomous power of CBN by amending BOFIA with Act No 4

in 1977 (as amended) to include new institutions not covered by the CBN in order to enhance monetary policy effectiveness, supervision, and regulations of banks and non-bank financial institutions. Between the period from 1989 to 1996, many banks were declared distressed, and the number of banks declined from 52 to 47 in number in 1997.

The CBN played a formidable role in the economic development of Nigeria, especially within the areas of banking and compliance with relevant reporting standards. The banking industry has undergone many transformations and changes in both policies and operations. Banking consolidations of 2004 reduced the number of banks to 25 from 89 in 2003, creating a more competitive and healthy economic environment in Nigeria (CBN, 2005), with the growth in the banking industry (Appah & Sophia, 2011). Moreover, the CNB has been active in the development of capital and money markets in the country. The bank's supervisory roles have brought about discipline in the financial markets, banks and other financial institutions in Nigeria. In continuation of the roles of CBN, the bank in 1960 introduced the first treasury bills into the financial market, introduced the Lagos stock exchange in 1961, and issued the first treasury certificates in 1968. The bank established a capital issue unit known as the Securities and Exchange Committee in 1970 within the bank, which later become the Nigerian Securities and Exchange Commission (NSEC).

Subsection 2 of the CBN Act of 2007 states the main objectives of the bank include: 1) ensuring price and monetary stability in the system; 2) issuance of currency as a legal tender in Nigeria; 3) maintaining external reserves to protect international value of the

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legal tender money; 4) promoting a good financial environment in Nigeria; and 5) acting as banker providing financial as well as economic advice to the government of Nigeria.

The CBN's supervisory role is classified into three departments: 1) Financial Policy and Regulations Department: that will ensure stability in the financial system; 2) Banking Supervision Department: that handles discounting houses and deposit money banks; and 3) Other Financial Institutions Supervision Department: for the microfinance banks, bureau-de-change, and other finance houses.

2.3 The National Insurance Commission

This Commission was established by Nigerian law as an agency to regulate and supervise the insurance sector in Nigeria. The Nigerian Parliament approved the es*ta*blishment of the Commission under the 1961 Act to focus on insurers' registration and keeping records of its members. In 1968, regulations for Insurance Companies were also established to enhance the 1961 Act. Additionally, the 1976 Insurance Act No 59 made various provisions to the law on the following issues: 1) conditions for approval of insurers; 2) operational systems; 3) transfers and amalgamations; and 4) enforcement of penalties and administration of insurance (NAICOM, 2003). Several reforms were carried out under the insurance scheme up to 1997 when the National Insurance Commission (NAICOM) Act of 1997, as well as the Insurance Act of 2003, were enacted.

Due to the growing number of insurance businesses in Nigeria, the 1997 Act was improved to cover paid-up share capital of categories of the insurance business, qualifications of executive members, and the system of government insurance of properties. The Act also identified other grey areas, like management and control of failing and failed insurance businesses as well as supervisory powers and functions. These changes and reviews improved the supervision and efficiency in the insurance market (NAICOM, 1999).

The Insurance Commission contributes to the development of accounting information through effective supervision, monitoring, control and ensuring compliance with the accounting regulations for financial reporting. Being a specialised business and one of the regulators of accounting information in Nigeria, staff are trained adequately on the use of accounting regulations. The Nigerian insurance market is assumed to be the biggest in Africa (Okeji, 2013).

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2.4 Professional Institutions in Nigeria

There are basically two registered professional institutions that are recognised for financial reporting auditing practice in Nigeria. These institutions are the Institute of Chartered Accountants of Nigeria (ICAN) and the Association of National Accountants of Nigeria (ANAN). The bodies prepare financial reporting and audit for both public and private companies. They are both members of international accounting and auditing bodies. The bodies are also members of NASB (now FRC) and regulate their members to ensure quality financial reporting.

2.4.1 Institute of Chartered Accountants of Nigeria (ICAN)

ICAN was the first professional relationship established in Nigeria. The Association of Accountants in Nigeria (AAN) was established in 1960 with the aim of training accountants in Nigeria. On 1st September 1965, the AAN was registered by an Act of Parliament No 15, as ICAN. Even though most of the members of ICAN trained in the United Kingdom, others had their training in Nigeria. The practices of ICAN members are based on the London-based practices of the Association of Chartered Certified Accountants (ACCA) because most of the members are ACCA members. The system of financial reporting in the country was based on the IAS with few modifications (Regan, 2003).

ICAN played a formidable role in establishing Nigerian domestic financial reporting (SAS) in Nigeria by setting up the Nigerian Accounting Standards Board (NASB) in 1982 as an independent (private) initiation for its members. The NASB provided a framework for financial reporting in Nigeria for the members of the organization to use for company financial reporting. Accounting standards (SAS 1 & SAS 2) were issued in 1984 by the body as the Nigerian Accounting Standards. These standards were adopted from the IAS with few changes to suit the local environment. In 1992, the NASB became part of a government agency under the Federal Ministry of Commerce (World Bank, 2004). The Company Act of 1968 states that all liability companies must be audited by a recognized professional body. Being one of the professional bodies in the country, most auditing practices are conducted by this body, and as Hiwet (1993) has noted, ICAN has a virtual monopoly over the profession in Nigeria.

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Due to the increasing demand for middle-level manpower required by Nigeria for development, ICAN initiated low-level training for accountants in 1989, known as the Accounting Technician Scheme (ATS). Because of the quality of the training under the scheme, the government of Nigeria recognized it as equivalent to the National Diploma in the service scheme. ICAN conducts professional examinations for both accounting and non-accounting students with exemptions for accounting students and ATS candidates. Qualified candidates are called Associate Chartered Accountants (ACA) who can practice as external auditors, consultants, and accountants and can be absorbed into the private and public sector services.

The financial crisis of 2008/2009 in the banking sector generated much concern for the CBN and other stakeholders about the credibility of ICAN in financial reporting. Many banks issued loans to directors without collateral, unrealistic profits were declared, banks gave shares to customers on loan, and banks engaged in substantial stripping of assets stripping. Dividends and profits were paid where no profit by any standards existed, and this was done under the nose of professional accountants (Ekeoba, 2011). Subsequently, directors were dismissed, and the CNB closed some banks. Of great concern was this had occurred even though the role of accountants was to ensure good corporate governance, not to participate in unethical behaviours (Ekeoba, 2011).

The Act which establishing the organizations stated that ICAN should:

1. Govern the level of standards of accounting profession in Nigeria with a view towards improvement;

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2. Train members on the accounting standards issued from period to period depending on the circumstances;

3. Control, monitor, and issue practicing licenses of its members who are entitled to work as auditors, consultants and accountants with the right to make their names public from time to time as required; and

4. Serve as a training institute to train and educate members of the public on the accounting profession and issue certificates of training to members.

ICAN is member of both regional and international accounting professional associations. Its memberships comprise (ICAN, 2010):

1. The Association of Accountancy Bodies in West Africa (ABWA);

2. Pan African Federation of Accountants (PAFA); and

3. International Federation of Accountants (IFAC)

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Given the growing number of companies with a demand for auditors and accountants by these companies, another professional body was chartered in 1993, which was known as ANAN.

2.4.2 The Association of National Accountants of Nigeria (ANAN)

The two bodies (ICAN and ANAN) are responsible for the regulating accounting practices in Nigeria. The ANAN was founded in 1979 and incorporated in 1983. The association

was chartered on August 25, 1993, under the 1993 Act No. 76 during a period of military rule. Before being admitted to ANAN, a prospective member is required to attend and undertake one-year intensive training in the Nigerian College of Accountancy, following by a two-year practical-in-accounting training program in either the public or private sector. This will lead to the qualification of Certified National Accountant (CNA) (ANAN, 2004). Stakeholders in the industry have criticised both ICAN and ANAN for inadequate training of their members (Odiakose, 2009), although ANAN has a training school that members must attend before becoming members of ANAN.

The ANAN College has contributed to the development of the accountancy profession in the country by training and educating accountants. By March 2011, there was massive growth of members not only from Nigeria but from other African countries as well. The number of accountants produced by the organisation has grown from 10,260 as of December 2007 to 16,207 in December 2010 (ANAN, 2010). Through the training of its members, the association has contributed to the accounting profession that is growing rapidly in Nigeria. ANAN members practice as auditors, consultants and accountants, like their counterparts in the ICAN. The two bodies have fought for supremacy in the accounting profession in the country. Both ICAN and ANAN members are members of the NASB for accounting regulations.

ANAN is a member of regional and international accountancy professions, including the:

1. International Association for Accounting Research and Education (IAARE);

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2. Chartered Institute of Public Finance and Accountancy (UK) (CIPFA);

3. Association of Accountancy Bodies in West Africa (ABWA);

4. Pan African Federation of Accountants (PAFA); and

5. International Federation of Accountants (IFAC).

ANAN must carry out the following duties with regards to the development of the accounting profession in Nigeria:

1. Advance and improve the science of accountancy profession in Nigeria;

2. Determine the standards of skills and knowledge of its practicing members;

3. Provided one of the highest ethical standards and competitive environment in the conduct and practice of the profession;

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4. Maintain and publish names of all registered members of the profession;

5. Improve on the accountancy profession in the public and private sectors through its contributions to the profession; and

6. Carry out any other function deemed to improve the accountancy profession in Nigeria by the Council.

2.5 Nigerian Stock Market Development

Principally, the Nigerian capital market is where corporate equities as well as long-term debts securities are traded and issued for long-term investments. The market is heavily regulated by the Nigerian Security and Exchange Commission (SEC) that is the top body regulating the Nigerian capital market. The Nigerian stock markets were opened in the early 1960s, as the Lagos Stock Exchange (LSE) as a private liability company, which was limited by guarantee as provided by the provisions of the LSE Act 1960. The LSE commenced business in 1961 with 19 listed securities that comprised 6 Federal Government Bonds, 10 Industrial loans and 3 equities (Afolabi, 2015).

Currently, there two main institutions in the Nigerian market: 1) the Securities and Exchange Commission (SEC), and 2) the Nigerian Stock Exchange Market (NSE). The SEC acts as the apex body and serves as the main regulatory authority in the market, while the NSE serves as the issuing houses and for the stock brokerage firms. The Nigerian capital market is like any other emerging stock market in that it protects investors from improper and unfair practices in the securities market (Oxford Business Group, 2010).

The major laws that responsible for the capital market functioning effectively in Nigeria are: 1) Investment and Security Act CAP No. 29 of 2007 (ISA), 2) The rules and regulations pursuant to the ISA, 3) Company Matters and Allied Act (CAMA), 4) the Trustee Investment Act CAP T22, LFN 2004, and 5) The Pension Act 2004. The market regulatory framework includes the SEC, regarded as the apex regulator of the stock market, the self-

regulator of the market, the investments and security tribunal, and the Economic and Financial Crime Commission (EFFC).

Three types of trading are performed basically in the Nigerian stock market including: 1) equities trading, 2) bond trading, and (3) exchange-traded funds (ETF). Equites trading in the Nigerian capital market comprises economic transitions of stocks also called shares between buyers and sellers that are considered negotiable instruments that corporations issue to grant a share of the capital of the firm. Any investor who purchases a share is one of the company's owners and is entitled to profits the firms pay out in the form of dividends. There are basically two type's shareholders of Nigerian firms. Most of them are ordinary shareholders (common shares). The other holders are preferred shareholders of four types: 1) cumulative preferred shares, 2) non-cumulative preferred shares, 3) participating preferred shares, and 4) convertible shares.

Bonds listed and trading on the Nigerian stock exchange are the: 1) Federal government bonds, 2) State/Local government bonds, 3) supranational bonds, and 4) corporate bonds. The Nigerian Stock Exchange defines an ETF as a fund that tracks the efficiency of a commodity or an index. They are traded like shares in the capital market and have their value derived from the commodity or the index. Investors are provided an opportunity to diversity their holdings by means of an ETF without having to diversify their portfolios by selecting an individual security.

The Nigerian capital market has undergone a series of transformations starting in 2010 after the financial crisis of 2008-2009. Before the financial turmoil, the market had been

doing well, but in 2008 and 2009 the global economic crisis adversely affected the market. Before the crash of the capital market Nigeria, stock market was regarded as one of the most profitable across the globe (Oladipupo, 2010), with an extraordinary growth in the market (Eze & Nwankwo, 2013). In 2010, the World Bank stated that Nigerian economy was one of the fastest economies in the world, providing growth in Gross Domestic Product (GDP) rate of 9% in 2008 and 8.3% in 2009. The growth rate in GDP of US$169 billion (2009) made the country's economy the second largest in all of Africa after South Africa and 41st in the world. Nonetheless, the country's recorded nominal per capital GDP was only US$1,140 (2009).

Before 2008, market capitalisation was reported to have risen by about 318.3% from December 2005 to March 2008, growing from NGN2.90 (trillion) (USD23 billion) to NGN13.5 trillion (USD80.88 billion). The Nigerian All Share Index (ASI) was also reported by NSE to have risen by 161.6% during the period from 2009 to December 2005, growing from an index of 24,085.8, to one of 63,016.56. This increase in Nigeria capital market indicators had shown remarkable economic growth with an average yearly growth of 10.03% from 2001 to 2009. Also, prior to the financial crisis of 2008-2009, the International Monetary Fund (IMF) pronounced the Nigerian banking system to be sound and therefore, growth should be encouraged (Sanusi, 2010). This sentiment was proved to be wrong as the financial crisis damaged the economy greatly.

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n no small measure, the collapse market was due to deficiencies in the Nigerian market system. The World Bank in 2011 said that the market collapse resulted from the exploitation of loopholes in Nigerian accounting and auditing standards, weak enforcement, weak capacity of the regulatory bodies and the employment of creative accounting to boost balance sheets of the firms. Failure of firms in the capital market during the period of crisis was ascribed to these weaknesses in financial reporting, auditing, and accounting. According to Ahmed and Bello (2015), the apex regulatory body lacked the necessary independence to enforce accountability in the system.

The NSE has developed excellent assets and financial investment management in the capital market for investors. The NSE is the gateway to information in Nigeria (NSE, 2012). It provides a greater opportunity for international investors to have access to information and securing the future of investments. Development of capital market regulations, setting of stock price issues and allotments in the security market are done by NSE. Additionally, the NSE is an ordinary member of the International Organization of Securities Commissions (IOSCO) that develops implements and promotes adherence to internationally recognized standards for securities regulation (NSE, 2013).

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2.6 Summary of the Differences between NGAAP and IFRS

All firms before the year 2012 all firms report their financial reporting based on the Nigerian accounting standards. The Nigerian government in the year 2011 mandated all com-

panies listed in the Nigeria stock market should adopt IFRS from the effective date 1 January, 2012. Therefore, all Nigerian firms listed in Nigerian stock market are now preparing their financial reporting based on IFRS (2012 to date). The compliance with the standard could be traced back to the World Bank report of 2010 and committee to the road map to IFRS in 2010. Therefore, by the January first all listed firms in Nigeria complied with the IFRS standard. Below Table 2.1 the summary of the differences between IFRS and NGAAP as provided in section 2.2.1 and 2.2.5 in the chapter.

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Table 2.1 Summary of the Differences Between NGAAP and IFRS

Items	NGAAP	IFRS
Presentation of financial statements	According to SAS 2-Information to be disclosed in the Financial Statements, income statement/profit and loss account, balance sheet, cash-flow statement, value added statement, five year financial summary, accounting policies and notes constitute minimum financial statements requirement for a public limited liability company	In the case of international accounting system (IAS 1-Presentation of Financial Statements), statement of comprehensive income (including income statement), statement of financial position (balance sheet), statement of cash flow, statement of changes in equity, accounting policies, notes and significant management estimates and judgments
General Measurement On fair value	SAS 3(Accounting for PPE), SAS 11 (Lease) and SAS 8 (Accounting for Employees Retirement Benefits) made reference to its usage in some accounting treatments. According to SAS 3, fair value is the amount for which an asset could be exchanged between a knowledgeable willing buyer and a knowledgeable willing seller in an arm‟s length transaction. This has often been interpreted to be market price of an asset or liability under SAS.	However, IFRS 13-fair value measurement is considered relatively unique in that it discloses valuation techniques pertaining to different categories of inputs through a „fair value hierarchy‟ and its Estimate involves various degrees of subjectivity depending on the availability of an active market for the assets and liabilities in question. In general, fair value is mandatory in measuring transactions at initial recognition under IFRS. However, items such as financial instruments held-for-trading, derivatives, assets and liabilities are required to be re-measured at fair value.

Table 2.1 Continued

Items	NGAAP	IFRS
Assets and Liabilities	According to GAAP, assets and liabilities have been recording through historical cost accounting	According to IFRS, assets and liabilities are disclosed based on fair value measurements
Measurement of assets and liabilities	Fair value ordinarily is no new concept under local accounting system as SAS 3(Accounting for PPE), SAS 11 (Lease) and SAS 8 (Accounting for Employees Retirement Benefits) made reference to its usage in some accounting treatments. According to SAS 3, fair value is the amount for which an asset could be exchanged between a knowledgeable willing buyer and a knowledgeable willing seller in an arm‟s length transaction. This has often been interpreted to be market price of an asset or liability under SAS.	However, IFRS 13-fair value measurement is considered relatively unique in that it discloses valuation techniques pertaining to different categories of inputs through a „fair value hierarchy‟ and its Estimate involves various degrees of subjectivity depending on the availability of an active market for the assets and liabilities in question IAS 39 requires recognition of all derivative financial assets and liabilities, including embedded derivatives.
Recognition of assets and liabilities	These were not recognised under SAS 2	IAS 19 requires an employer to recognise a liability when an employee has provided service in exchange for benefits to be paid in the future. These are not just post-employment benefits (e.g., pension plans) but also obligations for medical and life insurance, vacations, termination benefits, and deferred compensation. In the case of 'over-funded' defined benefit plans, this would be a plan asset. IAS 37 requires recognition of provisions as liabilities. Examples could include an entity's obligations for restructurings, onerous contracts, decommissioning, remediation, site restoration, warranties, guarantees, and litigation. Deferred tax assets and liabilities would be recognised in conformity with IAS 12.

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Table 2.1 Continued

Items	NGAAP	IFRS
Reclassification of assets and liabilities	Recognised dividends declared or proposed after balance sheet date. Items are classified as identifiable intangible assets under business combination under SAS 26	IAS 10 does not permit classifying dividends declared or proposed after the balance sheet date as a liability at the balance sheet date. If such liability was recognised under previous GAAP it would be reversed in the opening IFRS balance sheet. If the entity's previous GAAP had allowed treasury stock (an entity's own shares that it had purchased) to be reported as an asset, it would be reclassified as a component of equity under IFRS. Items classified as identifiable intangible assets in a business combination accounted for under the previous GAAP may be required to be reclassified as goodwill under IFRS 3 because they do not meet the definition of an intangible asset under IAS 38. The converse may also be true in some cases. IAS 32 has principles for classifying items as financial liabilities or equity. Thus mandatorily redeemable preferred shares that may have been classified as equity under previous GAAP would be reclassified as liabilities in the opening IFRS balance sheet. Note that IFRS 1 makes an exception from the "split-accounting" provisions of IAS 32. If the liability component of a compound financial instrument is no longer outstanding at the date of the opening IFRS balance sheet, the entity is not required to reclassify out of retained earnings and into other equity the original equity component of the compound instrument. The reclassification principle would apply for the purpose of defining reportable segments under IFRS 8. Some offsetting (netting) of assets and liabilities or of income and expense items that had been acceptable under previous GAAP may no longer be acceptable under IFRS.

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Table 2.1 Continued

Items	NGAAP	IFRS
Balance sheet — classification of deferred tax assets and liabilities	Current or non-current classification, generally based on the nature of the related asset or liability, is required	All amounts classified as non-current in the balance sheet.
Classification of deferred tax assets and liabilities in balance sheet	Current or non-current classification, based on the nature of the related asset or liability, is required	All amounts classified as non-current in the balance sheet
Income statement — classification of expenses	Entities may present expenses based on either function or nature (e.g., salaries, depreciation). However, if function is selected, certain disclosures about the nature of expenses must be included in the notes.	Entities may present expenses based on either function or nature (e.g., salaries, depreciation). However, if function is selected, certain disclosures about the nature of expenses must be included in the notes.
Disclosure of performance measures	No general requirements within SAS that address the presentation of specific performance measures. Additionally, public companies are prohibited from disclosing non-GAAP measures in the financial statements and accompanying notes from CAMA	Operating profit‖ are not defined; therefore, diversity in practice exists regarding line items, headings and subtotals presented on the income statement. IFRS 1 permits the presentation of additional line items, headings and subtotals in the statement of comprehensive income when such presentation is relevant to an understanding of the entity's financial performance.
Revenue recognition-Sale of goods	Public companies must follow CAMA, Revenue Recognition, which requires that delivery has occurred (the risks and rewards of ownership have been transferred), there is persuasive evidence of an arrangement, the fee is fixed or determinable and collectability is reasonably assured.	Revenue is recognized only when risks and rewards of ownership have been transferred, the buyer has control of the goods, revenues can be measured reliably and it is probable that the economic benefits will flow to the company.

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Table 2.1 Continued

Items	NGAAP	IFRS
Depreciation of asset components	Component depreciation permitted but not common under SAS	Component depreciation required if components of an asset have differing patterns of benefit.
Comprehensive Income	It reflects all revenues, expenses, gains and losses that are to be recognized according to accounting standards during a period, and is summarized in a separate financial statement named the Statement of Comprehensive Income called Trading, Profit and Loss Account under SAS 1.	The Statement of Comprehensive Income has two components. The first corresponds to the bottom line (profit or loss) of the income statement as it is commonly measured, incorporating gains and losses on transactions with outside parties and a number of unrealized gains and losses on items measured at fair value through profit or loss. The second component of the statement of comprehensive income relates to unrealized gains and losses caused primarily by fair value adjustments. This component is designed to bypass the income statement. In order to do that, a new category of accounting adjustment has been introduced known as other comprehensive income (OCI), which is presented directly in shareholders‟ equity. OCI may be seen as a buffer that allows the use of fair value accounting without its direct impact on the income statement. The profit accumulates in retained earnings; the annual variation of the OCI accumulates directly in shareholders‟ equity, whereas the sum of annual profit and annual variation of OCI forms the comprehensive income.
Extraordinary items	SAS requires extraordinary items to be presented in the profit and loss statement of the entity distinct from the ordinary income and expenses for the period.	While IFRS prohibits the presentation of extraordinary items in statement of comprehensive income or in the notes,

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Table 2.1 Continued

Items	NGAAP	IFRS
Dividend	Dividends Proposed After the end of the Reporting Period. Under SAS - Dividends declared after the end of the reporting period but before the financial statements are approved and recorded as liabilities in the financial statements.	Under IAS - Dividends declared after the end of the reporting period but before the financial statements are authorized for issue are not recorded as liability in the financial statements
Statement of Cash flows	SAS 18 provide guidelines on the statement of items to be presented on cash flows. Cash flows from items disclosed as extraordinary are classified as arising from operating, investing and financing as separately disclosed.	IAS 7 provides guidelines on items to be presented on the cash flow statements. As presentation of items as extraordinary is not permitted, the cash flow statement does not refelect any items of cash flows as extraordinary.
Earnings per shares	SAS 21 earnings per share: provides a scope exception for investment companies and wholly owned subsidiaries. Thus, such entities are not required to present EPS even if their common stock or potential common stock is traded in a public market or they have made, or are making, a filing with a regulatory agency in preparation for the sale of such securities in a public market. Another significant area of difference is share-based payments. Nigerian GAAP does not provide any guidance on accounting for these transactions.	IFRS 2 *Share-based Payment* requires an entity to recognise share-based payment transactions (such as granted shares, share options, or share appreciation rights) in its financial statements, including transactions with employees or other parties to be settled in cash, other assets, or equity instruments of the entity. Specific requirements are included for equity-settled and cash-settled share-based payment transactions, as well as those where the entity or supplier has a choice of cash or equity instruments.

2.7 Conclusion

This chapter provided insight into the Nigerian financial reporting environment. Regulatory, as well as professional bodies responsible for ensuring quality financial reporting in Nigeria, were reviewed. Next is chapter three that discusses value relevance literature, underpinning theories and hypotheses development.

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CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

This chapter presented relevant literature that are based on capital market research and value relevance of accounting information. Several findings of studies and methodological approach with regards to value relevance are provided in this chapter. This chapter delves into value relevance theories, capital market research, value relevance concepts, value relevance of assets and liabilities disclosures, value relevance of income and operating expenses disclosures, value relevance of total comprehensive income, and lastly value relevance of cash flow disclosures.

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3.2 Capital Market Research

The earliest researchers on the relationship between the usefulness of financial information and stock returns were carried out by Ball and Brown (1968). The authors in their study, established that: (i) capital markets information is both sufficient and unbiased in developing capital assets price; relevant information to investors will assist market adjustment in assets prices from the given information as quickly as possible and will not give any chance for further abnormal gains; and (ii) variation of stock returns in capital market margin is generated from the release of relevant ac

counting information from concerned firms (Ball & Brown, 1968). However, the studies of Brown and Ball (1968), and Ball and Brown, (1968) to date focused on stock return rather than the two evaluation models that have been used by other researchers.

A number of researches have been conducted out on the relationship of accounting numbers and stock prices, such as Francis and Schipper (1999), Holthausen and Watts (2001), Kargin (2013), Kotharin (2001), and Landsman (2007), which also significantly contribute to value relevance studies. Most these studies ignored the use of accounting disclosures such assets and liabilities and their components on firms. From the period 1995 to this period, several scholars used the Ohlson model and regression models to test the significant relationship between accounting numbers in various countries' capital market data (Gil-Alana, Iñiguez-Sánchez, & López-Espinosa, 2006). Researchers on the importance of information in efficient functioning capital markets have long been studied by many scholars (Dung, 2010).

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Similarly, Kothari (2001), provided an insight into the significance of the relationship between financial information and capital markets, that has improved the area of capital market research. Also, Beaver (2002) indicated that market identified five areas of capital market research that made an important contribution to the capital market studies such as; value relevance, market efficiency, discretionary behaviour, Feltham-Ohlson Modelling, and analyst behaviour, in his study. However, Beaver (2002) stated two areas: market efficiency and Feltham-Ohlson model, as the basic platform, which will permit researchers to organise the role of accounting information in capital markets. Baever's arguments depend too heavily on the market that is efficient (developed

market) using price model to base his arguments thereby ignoring emerging markets and stock return model. Therefore, Beaver (2002) arguments cannot be generalised.

Many researchers have challenged the arguments of Beaver's claim on the ground that prices model cannot be standalone in determining the relationship between accounting disclosures and market value of equity (for instance, Yang, 2007). Also, Landsman (2007), examined the extent to which capital market research examines how accounting information significantly affects investors using stock return model. The review showed that fair value for disclosed and recognised assets and liabilities are informative to investors using stock return regression model.

In Nigeria, Mgbame and Ikhatua (2013) reported that stock volatility exists in the Nigerian stock market because of the influence of accounting information. However, studies on Nigerian capital market provided mixed evidence of either capital market is efficient in weak form or not efficient. Some literature reported that Nigerian capital market is in weak-form efficient (Adelegan, 2003; Jefferis & Smith, 2005; Okpara, 2010;Okpara2010b;Oliver, 2016; Sule, Ismaila, & Tahir, 2015). In contrast, others studies reported Nigerian capital market not to be efficient in any form (Ogege & Mojekwu, 2013;Nweze, 2015).

Adelegan (2003) determined the reaction of dividend with return and found that excess returns were significant after dividend announcements. This he repoted that Nigerian stock market is semi-strong efficient. Relatively, Jefferis and Smith (2005) reported South Africa and Nigeria with the weak-form efficient capital market at the end of the

year 2005. Also, Okpara (2010) concluded in his study that Nigerian stock market is efficient in a weak form. He discovered an increase in market capitalisation over the period of study from 1996-2006 with a smaller share of the Gross National Product and Gross fixed Capital Formation. Furthermore, Okpara (2010b) from his Other study but adopting different methodology using Generalised Autoregressive Conditional Heteroscedasticity (GARCH) model, presented also, a weak-form and inefficiency in the Nigerian market.

A recent study by Oliver (2016), he reported a weak-form efficiency of the Nigerian capital market using cross-sectional security price, from a selected quoted firms within the Nigerian stock market. The study discovered that security price follows random walk at 99% confidence level. Similarly, Sule, Ismaila, and Tahir (2015) concluded from their study market price changes follows a random walk, suggesting a weak-form efficient market in Nigerian stock market.

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In contrast, Ogege and Mojekwu, (2013) using similar periods of Okapara (2010, 2010b) reported investors can predict future share price of the market symbolising thatthe market is in weak-form efficiency. The studies, although, used in the same period, but the methodology used by both authors differs. In addition, Nweze (2015) reported that Nigerian capital market is not in any form efficient because it has not contributed much to the economic growth of the country. Also, Afego (2012) reported the deviation from randomness of statistical significance contradicting the weak-form of the market efficiency. Furthermore, Barine (2014) findings from his study reported

that share prices follow a definite path that was determined by the equities and issuing firms information and therefore, did not follow random walk as suggested by Fama (1970)

The major weaknesses of these studies have considered Nigerian capital market efficiency in similar periods although, adopting different methodologies and samples. Moreover, these studies were conducted either before the crisis or within the financial crisis periods. Therefore, financial crisis and economic turmoil of the country could have influenced the non-efficiency of the market. This is because NSE in 2013 reported that the Nigerian capital market has grown better and even become one of the frontier markets in Africa. The market, alongside the Athens stock market, ranked among the top five in January 2013 in the World Federation of Exchanges (WFE).

3.3 Value Relevance Concept and Studies

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The earliest use of the term "value relevance" was adopted in the study of Amir, Harris and Venuti (1993). Many researchers find this study interesting after the work of Amir. For instance, Bath (1994) investigated value relevance of investments securities using two different measurement approaches of the historical and fair value of assets and earnings to stock prices. However, Ohlson (1995) first developed the model that associates relationship of firm's stock price value to financial measures. Using the model, Ohlson (1995) provided firm value to be a linear function of accounting numbers (earnings, book value and other relevant information).

One criticism of the model it does not provided a better explanation of the relationship between accounting disclosures and the stock market. The majority of the empirical studies on the relevance of financial reporting have broadly recorded the significant statistical relationship between book values, earnings with stock prices or returns. For example, Collins, Maydew and Weiss (1997) examined the relevance of both book values, earnings, combined book value and earnings value in US firms for the period 1953 - 1993.

The conceptual framework of financial reporting of IASB (2015) stated that financial reporting identifies qualitative characteristic that is most useful information for the investors, and potential investors, other creditor and lenders for deciding about reporting entity. The IASB further mentioned that financial information to be important and useful to investors it must be relevant and faithfully represent the purpose it represents. Therefore, enhancing the usefulness of financial reporting could be done if it is verifiable, timely, comparable and understandable. The financial statement represents economic phenomena in measures and words, but for it to have relevance it should be presented without bias (IASB, 2015). Barth and Beaver (2000) identified relevance as a predictive value, feedback value and timeliness, while reliability includes faithful representation, neutrality and verifiability. To further buttress this, Kommunuri (2008) provided that relevance and reliability of accounting information as two main characteristics of accounting information

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Accordingly, Brien (2005) emphasised that relevance and reliability are the capacity of accounting numbers to summarise and capture accounting information that has a significant effect on stock prices. Therefore, the usefulness of accounting numbers and financial information must reflect the fundamental value of a firm (Armstrong, Barth, Jagolinzer, & Riedl, 2010). For example, the study of Holthausen and Watts (2001) examined whether the relations between accounting numbers and stock prices are value relevant in explaining market value. Investigating the relevance of accounting information means a researcher wants to find out if accounting numbers are used by stock investors as an input for valuation in the stock market (Beisland, 2009).

The IASC in 1989 considered the role of accounting information to be both confirmatory and predictive to market values and accounting numbers as well as interrelated to each other. Thus, the IASB in 2010 stated that, "Financial information needs to be predictive or forecasted to have predictive value; financial report with predictive value is used by users in making their predictions". Ebaid (2012) studied the influence of accounting-based methods on market returns and prices and their predictive values to be referred to as the value relevance of financial reporting. Thus, the overall book value of equity is value relevant when it can determine stock prices (Kargin, 2013). Similarly, Vishnani & Shah (2008) report that "Value relevance" denotes the ability of the accounting numbers stated in the reports that explained the market price measures.

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The ability for financial reporting to summarise and capture accounting information affecting share information has been examined in testing the statistical relationship between accounting numbers and market values and mapping from financial statements to "intrinsic" values (Aboody, Hughes & Liu, 2002; Hellström, 2006; Tharmila & Nimalathasan, 2013). Similarly, value relevance of financial information can be predictive and statistically measured through the relationship between stock market values or returns from the information reported on the financial statement (Barth et al., 2001), with the ability to the information provided in the annual reports to summarise and capture firm value (Beisland, 2009; Kargin, 2013).

There are many value relevance studies conducted using price and return models. For instance, the study of Zou, Zhang, and Wang (2007) investigated capital market reaction as a result of IFRS adoption among European Union(EU) member countries. Their findings reported that stock market in EU reacted positively with the increased adoption of IFRS. Okafor, Mark, and Hussein (2016) provided evidence of value relevance of accounting information after IFRS for both price and return model.

Similarly, Negash (2008) assessed the adoption of IFRS effect on firms listed on the South African stock market (Johannesburg Security) using Ohlson model of 1995 and regression models for valuation model. The study adopted pre-and post-adoption of IFRS, but the study reported no improvement of value relevance of accounting information after IFRS adoption. In contrast, Barth, Landsman, and Lang (2008) compared earnings management, timely recognition, and accrual information value relevance

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using cross countries data. Their findings concluded that adoption of IAS could be related to the lower earnings management, greater timely recognition of more association and larger losses between book value and earnings for prices and return.

The study of Beisland (2009) reported that majority of value relevance researches are related to market efficiency because they have provided the relationship between accounting measures and stock prices. In several studies, the Ohlson model (1995) and regression models are used to explore the relationship between the stock market value of equity and accounting disclosure variables, such as book value per share (representing balance sheet), earnings per share (representing income statement), other comprehensive income and cash flows.

In the work of Francis and Schipper (1999), they considered four likely interpretations of the assumptions of value relevance. The first clarification is that stock prices are led by the accounting measures by capturing of intrinsic values of shares give the significance or meaning of stock prices. Secondly, financial reporting is value relevant once can assist in predicting variables used in a valuation model. The third and fourth are more relevant when accounting information shows the statistical relationship between accounting numbers and returns or prices.

With a view to expanding the research on value relevance in other fields, like expenditure for advertisement in the pharmaceutical business, Gu and Li (2008) investigated the contribution of growing demand of expenditures in pharmaceutical companies with firm value. They are of the view that stock investors understand pharmaceutical

firms' advertisement as a source of economic benefit. In addition, they also found that advertisement expenditure in pharmaceutical business has a significant relationship with firm returns and stock prices. Furthermore, they discovered expenditure has similar characteristics with capitalised intangible assets different from research and development expenditure (R&D).

Meanwhile, Holthausen and Watts (2001) critically evaluated standard setting inferences that are drawn from value relevance studies. They drew 62 value relevance research papers from high-quality accounting journals for the period of 1980 to 2000. From the evaluation of the papers, it is reported that majority of the research use relative relationship studies and the rest use information content and relationship research.

Vijitha and Nimalathasan, (2014) provided evidence from their studies on Sri Lanka stock exchange that accounting numbers havesignificant impact on share prices with a significant correlation between accounting information and share price. Furthermore, a study on the value relevance of compliance with the mandatory adoption of IFRS was carried by Tsalavoutas and Dionysiou (2014) and find that mandatory compliance with adoption is value relevant. They further proof that the R^2 coefficient is high in the net income of those firms with high compliances in comparing with low compliance companies.

Barth, Beaver and Landsman (2000) and Holthausen and Watts (2001) in their study clarified some misconceptions about value relevance studies that: (i) empirical appli-

cations of valuation models are employed to discuss issues on the relevance of accounting information, even with the assumptions underlying models for valuations are simplified; (ii) the use of econometric models can be applied to moderate the relationship between the common econometric problems in value relevance studies; (iii) the study of value relevance can address the issue of conservatism, regardless of being inconsistent with the characteristics of accounting practice established by FASB; in fairness, in the absence of value relevance studies, it would be challenging to establish that accounting practice is conservative; and (iv) it enables researchers to understand how accounting numbers reflect accounting information used by the investors with regards to equity value of firms.

Financial information has a vital role to play in influencing stock prices and investors for financing decisions. The significance of financial disclosures to develop accounting information has made researchers study the relevance of information in the stock market for more than two decades. Nevertheless, the contribution of these studies is limited to the share prices, returns and accounting numbers to prove the relationship of value relevance to accounting numbers. One of the limitations of the studies is that the views of investors on the significance of accounting numbers have not been taken into considerations. Users of accounting information are in direct need of the accounting relevance from the financial information for financial decisions. For instance, Bao and Lynne (1999) and Standartlar and Fiyatlar (2012) reported that earnings, book

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value and value relevance of accounting information to users, significantly reflects stock prices.

Value relevance studies have been categorised into three classifications by Holthausen and Watts (2001). The first classification is the studies on the relative relationship that reports the relationship between stock prices (increase or decrease) and substitutive measure bottom-line. For instance, Amir et al. (1993) compared the accounting relevance of US GAAP and Non-US GAAP using relative relationship. Secondly, incremental relationship studies, which examine whether long period accounting numbers of interest can be helpful in explaining market returns or values when other specified variables are given. For example, Holthausen et al. (2001) cited in Ventachelun (1996), investigated incremental relationship in a value risk management derivative using regressions in equity market values from different on and off-balance sheet items. Lastly, the marginal information studies, where accounting numbers are examined as to whether they improve on the information set accessible to investors using event studies to decide if accounting numbers have any relationship with value changes.

For this study, relationship research will be used. The reason for using relative relationship is that the study investigates value relevance research on firms previously under NGAAP and now under the new standard.

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3.4 Value Relevance Theories

Theories on the capital market provided a platform for discussing current issues in capital markets and financial reporting, including stock market consequences to outside stakeholders. Capital market theories offer a clear understanding of different but inter-related positions in financial information reporting in the stock market economy: 1) the valuation role; 2) the regulatory role; 3) the information role; and 4) the monitoring role (Glautier & Underdown, 1997) Under these approaches, market forces can be used to determine the type of accounting data required to provide necessary requirements that underlie them. The theories on value relevance in this study comprise the Efficient Market Hypothesis (EMH), the Ohlson Model (1995)

3.4.1 Efficient Market Hypothesis

Capital markets expedite the selling and buying securities, like bonds or debentures and shares. The markets perform two major functions such as liquidity and security pricing. The efficiency of financial markets or the Efficient Market Hypothesis (EMH) states that the prices of assets traded reflect all the available information in an accurate manner and reveal the shared beliefs of all users or investors about the predictive prospect of the market (Pfeifer, Schredelseker, & Seeber, 2009). Value relevance studies can be considered to be related to market efficiency (Beisland, 2009). EMH is regarded as the most significant theory underpinning areas of accounting research (Hodnett & Hsieh, 2012). Fame (1970) first developed EMH using Efficient Market Theory. The theory of an efficient market is more interested in prices at any given point in time as "fully reflecting" available

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information. Fama argued that ownership allocation from the company's capital stock, which represents the basic role of the capital market, is perfectly achieved as long as the market is efficient; this is because the market can provide accurate signals of prices from resource allocations.

Market theories provided the basic foundation for the development of the security prices model for financial assets and strategies that can explain market behaviour (Gandhi, Bulsara & Patel, 2013; Hodnett & Hsieh, 2012). In support of the EMH, Glautier and Underdown (1997) use three assumptions listed below:

1. Investors react to new information in a manner causing the prices in the stock markets to rise suddenly. Consequently, information disclosed as a footnote in a financial statement will be incorporated into the share price, the same as in the main statement;
2. The share price of the stock exchange traded fully replicates all publicly accessible information; and
3. Abnormal returns to investors cannot be earned, i.e., investors can assume to get information from the published accounts in such manner that will increase the incentives accruing to the individual as against accruing to the other investors. For example, every investor can assume to earn returns on a security equal to the risk taken.

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Significant backing has been received from scholars for EMH assumptions (Glautier & Underdown, 1997). The hypothesis posits that share price reactions to new financial information does not have any economic significance.

Two hypotheses were developed by financial theorists on accounting measures in the stock market (Gautier & Underdown, 1997). The assumption of the first hypothesis is that the market is naïve, while the second one assumes that the market is efficient. However, Gautier and Underdown (1997) opined that the market is naïve especially when it produces information content that is inexperienced in nature in its financial reporting. Additionally, the hypothesis also assumes that investors are naïve if they are unable to read a financial report or detect any irregularities in the financial reporting process. Therefore, the market generally will react naively to the information provided. This is because investors in the market are relatively not sophisticated enough to interpret and analyse accounting information; it assumes that they determine the behaviour and efficiency of the market from information contained in the reports (Glautier & Underdown, 1997).

Beaver (1981) defined market efficient as the "quality of stock prices" under two dimensions of information (for instance, with and without general access to information system to investors). Market efficiency clarifies the relationship between share prices and information in a capital market (Gandhi et al., 2013). An efficient market is a market one in which a competitive demand exists for relevant information by investors. For example, investors have equal access to information without manipulating the capital market by generating risk-adjustment returns in security market that are abnormal in a consistent manner.

Vast areas of security market studies have contributed to the understanding of accounting numbers (Beaver, 2002). Security markets, according to (Huang, 2013), have been found

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to be extremely efficient when it comes to reflecting accounting information about an individual stock market or stocks as a whole. Market security can be efficient with respect to some accounting information when stock price information is known to everyone (Beaver, 1981).

Fama (1970) suggested three elements of information that depend on the nature of the classifications with regards to security prices: 1) a weak form test or a weak market, which considers information set as historical prices; 2) a semi-form test or a semi-strong market, that considers market prices efficiently adjust to publicly available information (for example, stock splits, annual earnings announcements, or new security issues); and 3) a strong form test or a strong market, which is basically on the monopolistic behaviour of investors or a group to information accessibility that can be relevant for formation of prices to be reviewed. The last category (the strong form test) can be an exact description of the economy and be regarded as the benchmark by which to examine deviations in market efficiency in accounting research (Fama, 1970).

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The primary issue with regards to market efficiency theory is that no possibility exists for out-performing the market in the long-run (Birău, 2015); performance depends on the adequate pricing of capital and risk (Korkmaz & Akman, 2010). Capital markets are not essentially efficient and are not partially efficient (Richard & Myrtle, 1987). Developed and efficient markets can improve on economic growth by increasing the efficiency of utilisation and allocation of savings in the economy (Gandhi, Bulsara & Patel, 2013), and the significant role of the capital market is the provision of possession from the economy's

stock market (Malkiel, 2003). However, different factors determine the degree of market efficiency, cost of information, quality of information, stock market cost and the degree of market completeness, with other factors related to market efficiency (Richard & Myrtle, 1987).

Market efficiency is a significant concern in stock market studies (Dung, 2010). Transitional and emerging markets do not have well-developed capital markets, which mostly show market inefficiency. Nevertheless, the real understanding is whether value relevance of accounting numbers has any material effect on market efficiency (Aboody, Hughes & Liu, 2002). Most studies related to market efficiency have drawn upon the hypothesis that stock market value is efficient in a semi-strong form ignoring market efficiency (Aboody et al., 2002). However, these studies on market efficiency do not have a significant theoretical basis because researchers could not address the important answers to the following two questions: 1) financial statement information that takes a close relationship with stock prices; and 2) the theoretical framework measuring value relevance (Dung, 2010). Notwithstanding, other researchers have disputed this assertion by Dung as the procedure is not standardised for use in value relevance studies (Beisland, 2008). This warrants the use of EMH in value relevance studies because of the non-standardisation of procedures on the use of other standards.

Because EMH is a strong assumption, especially in a market with numerous imperfections (emerging markets), a combination of Ohlson's Model and Aboody et al.'s (2002) proposition offers a suitable theoretical foundation to measure the value relevance of financial

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information (Dung, 2010). Different forms of market efficiency have been tested using various markets in the world with diverse results (Gandhi et al., 2013). Value relevance studies as a capital market research, with the EMH providing a theoretical framework as well as the basis needed for the capital market research in accounting (Kothari, 2001).

The EMH, in testing value relevance of accounting information, plays an important role in the stock market, and the market generally, setting post-listing and listing requirements for firms seeking prices in capital markets. For instance, the Nigerian Security Exchange (NSE) post-listing requirements place more emphasis on the release of information in a timely manner. A lack of timely financial reporting could cause investors to lose hope in the Nigerian financial market as reliable information cannot be guaranteed (NSE, 2010). Listed firms are required to provide information to the public on the quality of their accounting information. Nevertheless, the EMH needs the use of "expected returns" that assumes security prices are properly placed. A theory is needed that can specify the bond between the prices and expected returns of individual capital in question (Belkaoui, 2004).

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However, based on this principle, when accounting information is important to investors, they will adjust their conduct and the response from the market will be enhanced through a change in stock prices. Therefore, in this case, information is important and relevant when changes in stock returns (or stock prices) are associated with accounting measures. Researchers have generally established the EMH to be one of the important theories in describing capital market prices and an important concept for actual market pricing

(Milburn, 2008). Several studies have reported the weak form of market efficiency in Nigerian stock market (Ogege & Mojekwu, 2013; Okpara, 2010; Olowe, 1999).

3.4.2 Ohlson Valuation Model (1995)

The Ohlson Model of 1995 based on the Valuation Theory (VT) has contributed to capital markets literature (Cupertino, Roberto, & Lustosa, 2004). Ohlson (1995) claimed that share prices under certain conditions could be expressed in the form of the weighted average of book value and earnings. The theory supports the notion that accounting numbers could be employed on evaluation models and distribution in the creation of firm value in the stock market. The model satisfied several appealing needs and presented an important yardstick when one conceptualizes the way market value is related to accounting numbers and other information (Ohlson, 1995).

Ohlson's (1995) model analysed a model of firm market value in relationship to contemporaneous and future earnings, book values and dividends. Ohlson reported that in applying clean surplus, dividends reduced book values but did not affect current earnings. The model appears to be agreed upon by accounting researchers who believed that linkages existed between accounting number and valuation. The model presented efficient yet descriptive representation of the valuation process and accounting information (Lundholm, 1995).

The contributions of the Ohlson model can be summarised in three ways. The first was that Ohlson revived the residual valuation research of residual income when the approach

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was not easily implemented. The work of Edward and Ball (1961) could not provide successful implementation of residual income studies at that time, but Ohlson's work did. Second, Ohlson's work provided information dynamics to be a link between observable accounting variables and dividends discounting model. The model from Ohlson analysed a firm's market value as it relates to book values, future earnings, and dividends.

Lastly, the model provided a framework by which to appreciate the distinctive approaches adopted in the market valuation studies. For instance, the model assists in understanding the analysis of whether changes in earnings or level of earnings are applicable in the earnings-return specification (for instance, Aboody, Hughes, & Liu, 2002b; Bogstrand & Larson, 2012; Tsalavoutas et al., 2012).

The stock price model is one of the most widely adopted models in value-relevance related studies (Barth, Landsman, Lang, & Williams, 2006; Kothari & Zimmerman, 1995).

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The Ohlson (1995) model is presented as follows

$$P_{it} = \alpha_0 + b_1 B_{it} + b_2 E_{it} + b_3 V_{it} + \mu_{it}$$

This is presented as

P_{it}= stock market value of equity for firm i at period t

B_{it}= book value of equity for firm i at period t

E_{it}= earnings for firm i at period t

$\mathbf{V_{it}}$ = non-financial information market provided for firm i at period t

μ_{it}= error term for firm i at period t

However, market value can be presented in the form of: 1) assets (liabilities) that are financial with a coefficient above zero; 2) the forecasted operating earnings having a positive coefficient; 3) a change in the forecasted operating earnings with a negative coefficient; 4) assumed change in operating assets (net) with a positive coefficient; and 5) current operating assets (net) with a non-negative coefficient (Ohlson & Liu, 2000). For instance, the work of Cazavan-Jeny and Jeanjean (2006) reported that both earnings change and earnings level variables are to be involved when combining earnings and book value in the valuation models.

Holthausen and Watts (2001) supported the idea that Ohlson's model could be adopted to examine the relationship between accounting numbers and equity value, at the same time the model could have no implications for accounting methods and present no direct conclusion for accounting standards. For instance, these include a market that has different assets and liabilities, including the market for stocks separately (Holthausen & Watts, 2001). In contrast, Barth, Beaver, and Landsman (2001) said that value relevance issues can be attended using the Ohlson's valuation model, as it addresses some econometric issues that would accommodate them and could reduce inferences as well as be used to report the effect of accounting information. In conclusion, Bart et al. (2001) reported that value relevance literature offers important insights for standard settings using the valua-

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tion model. In addition, Cazavan-Jeny and Jeanjean (2006) stated that one of the advantages of the valuation model is that assumptions are not required on cash flows on the relationship with earnings on value relevance studies.

Alfaraih and Alanezi (2011), for instance, asserted that the model expresses a firm's stock price (market value) as a linear function of book value, earnings and other value-relevant information. Hence, it represents a firm's value, i.e., the linear function of the equity of book value, as well as the presence of abnormal earnings predicted in the future. The Ohlson Model also predicts the perfect stock market but permits imperfect markets for a finite number of periods (Barth et al., 2001). The relationship between the attributed value relevance and accounting numbers shows that book values of assets and liabilities express financial reporting about market prices or return of both assets and liabilities (Holthausen & Watts, 2001).

In this study, the accounting based model of firm valuation developed by Ohlson (1995) provided a significant theoretical direction for the interpretation and construction of findings in stock market research (value relevance).

3.5 IFRS Adoption Studies

A growing number of studies have provided evidence of the value relevance of accounting research based on the wide spread of global IFRS adoption among capital markets and standards setters. The adoption of IFRS was not be mandated for European countries until January 2005. Ball (2006) reported that IFRS adoption had recorded extraordinary success

in developing detailed high-quality standards as well as in encouraging and persuading more than 100 countries to adopt the standards. However, problems are envisaged with the use of fair value accounting, which creates significant differences among adopters of the standards. However, Brochet, Jagolinzer, and Riedl (2013) reported low amounts in terms of reconciliation between United Kingdom and IFRS firms, having a high information environment quality which when put together will lead to enhanced comparability of accounting information.

Several studies used institutional factors to determine the effect of IFRS on the quality of accounting reporting. Daske, Hail, Leuz, and Verdi (2008a) reported that the benefit of IFRS adoption in some countries was that financial reporting provided more transparent and additional information than domestic financial reporting. Also, it has provided quality numbers due to specific measurements and recognition rules in the IFRS. Ball (2006) expressed a deeper concern is that substantial differences would inevitably emerge among countries in the implementation of IFRS. which risked being concealed by a veneer of uniformity. Păşcan (2015) noted that different political, legal and incentives of different countries affected accounting standards, and his study recommended the interpretation of IFRS based on country-specific factors. Furthermore, Karampinis and Hevas (2011) reported minor improvements as a result of institutional factors. Chebaane and Othman (2014) documented that common law influenced changes in accounting information.

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Christensen, Lee, Walker, and Zeng (2015) documented that voluntarily firm's adopters of IFRS are likely to have more benefits from IFRS adoption. They found that there is greater exhibition of lower earnings management, greater value relevance for voluntary than mandatory IFRS adopters. They concluded that IFRS adoption does not importantly lead to higher value relevance of financial reporting. In contrast, Barth et al. (2014) concluded that IFRS adoption exhibited differences between domestic financial reporting and IFRS for financial and non-financial firms and across countries. However, Ames (2013) found no significant increase in the quality of accounting information in South Africa after the IFRS adoption for earnings but recorded an increase in changes in balance sheet components.

Tsalavoutas and Dionysiou's (2014b) study showed an incremental increase of accounting quality after the IFRS adoption in a single country in the European Union. Daske, Hail, Leuz, and Verdi (2008) reported market liquidity increases with the adoption of IFRS and firm's cost of capital decreases in equity valuation. Earnings became more value relevant than book value as a result of IFRS adoption in Australia (Chalmers, Clinch, & Godfrey, 2011). In contrast, book value is more value relevant than earnings in Turkish Stock exchange (Kargin, 2013). Also, Okafor, Mark, and Hussein (2016) investigated the relevance of accounting information during the period from 2008 to 2013 among Canadian listed firms for accounting information prepared under IFRS. They found that accounting information is more value relevant under IFRS than Canadian GAAP.

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Several studies compared financial reporting based on the application of GAPP-based rules on non-US GAAP countries applying US GAAP. For instance, Hung and Subramanyam (2007) discovered that higher book value of equities and earnings had higher variability, with a loss provision that was large and a book value coefficient that was higher under IAS, but a higher coefficient under German GAAP for earnings. Bartov, Goldberg, and Kim (2001) reported coefficients of return regression on earnings to be lower under German GAPP compared to IAS and US GAAP earnings. Harris, Lang, and Möller (1994) reported similar findings between US GAAP and IAS in Germany.Leuz, Nanda, and Wysocki (2003) found a similar result that IFRS and US GAAP were not significantly different in a study of 31 countries. However, Barth, Landsman, Lang, and Williams (2006) reported a lower quality of accounting information under IFRS than under US GAAP. Lin, Riccardi, and Wang (2012) reported higher financial reporting quality using US GAAP than IFRS adoption, and transition from US GAAP to IFRS decrease the financial reporting quality.

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The mixed findings from the different and similar countries could be because, while one single set of accounting standards could be good and suitable for any environment, harmonisation may not uniformly increase value relevance as accounting quality is a function of a firm's overall institutional setting, including the legal and political system of the country in which the firm resides due to changes in countries (Soderstrom & Sun, 2007). IFRS adoption eliminates some accounting choices thereby decreasing managerial

discretion, which could increase the quality of accounting and thus, reduce the extent of opportunistic earnings management (Barth, Landsman, & Lang, 2008).

Clarkson, Hanna, Richardson, and Thompson (2011) focused on the effect of IFRS adoption in Australia and Europe among book value, earnings and market value. They reported an increase in value relevance after the IFRS adoption in all the countries under study. Iatridis and Rouvolis (2010) focused on Greek GAAP to IFRS adoption among Greek listed firms. They examined the factors associated with IFRS disclosures for pre-and post-adoption periods of IFRS based on accounting numbers. Their findings showed that IFRS implementation introduced volatility among the key balance sheet and income measures in Greek firms. The effect of IFRS, however, appeared to be not favourable because of IFRS adoption transition costs, while the financial measures of firms improved significantly in the successive years.

Callao, Jarne, and Laínez, (2007) determined the effect of IFRS over local GAAP in Spain and the United Kingdom. The study reported that accounting information was greater under IFRS for both Spain and the United Kingdom. Tsoligkas and Tsalavoutas (2011) investigated R&D assets and expenses in the United Kingdom after the adoption of IFRS. Their findings reported that the capitalised portion of R&D had a positive and significant relationship with market values. They also reported that R&D expenses had a negative but significant relationship with a market value under IFRS. Tsalavoutas, André, and Evans (2012) reported findings on the effect of the IFRS in Greece with respect to the

transition to IFRS and Greece GAAP and found no significant change from the explanatory power between the two periods for the value relevance.

Using Bursa Malaysia, Kadri et al. (2009) reported the value relevance of book value and the earnings full sample to be value relevant. The new accounting regime (IFR) had an effect on book value only. The effect of earnings and operating cash flows after IFRS adoption could not be proven. In contrast, Kwong (2010) examined balance sheet and income statements for the three periods (pre-MASB, post-MASB and post-IFRS adoption) using the stock price model. The overall study findings provided evidence of the value relevance of IFRS for investors' decision making. The book value and earnings jointly explained the variation in their relationship with market value for the three periods. However, the results of mandatory adoption of IFRS, the earnings and income statement significantly increased in this relationship with the stock market valuation compared to book value of equity.

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3.6 Value Relevance and IFRS Adoption in Nigeria

The insistent pressure around the world for countries to adopt IFRS as part of global requirements of international financial reporting has grown. The use of domestic financial reporting by Nigerian firms led to the wide criticism of the poor financial reporting statements. Therefore, adoption of IFRS was a remedy to provide higher-quality financial reporting not only in Nigeria but across Africa because all African countries need to show a commitment to providing higher-quality financial reporting. African countries have an obligation to produce higher-quality accounting information to signal to the world their commitments to produce quality financial statements (Hope, Jin, & Kang, 2006).

The adoption of IFRS has led Nigerian scholars to compare the old accounting standards with the new financial reporting to investigate the effects of IFRS adoption among Nigerian firms. However, studies of Nigeria have exhibited mixed findings. For instance, Uthman and Abdul-baki (2014), examined value relevance of accounting information using survey data comprising a sample of 130 professionals and standard setters to determine the value relevance of accounting information after IFRS adoption. The findings of the study found that professionals believed IFRS was better than NGAAP in terms of value relevance. Nonetheless, the low number of responses received meant that the findings could not be generalized.

Also, Omokhudu and Ibadin (2015) studied book values, earnings, cash flows and dividends to determine the effect of IFRS adoption and the value relevance of accounting information. The study adopted Ohlson's (1995) model using panel data for data analysis.

The study reported that earnings, cash flows, and dividends had a statistical significance with stock price, while book values had no significant relationship after the IFRS adoption. In addition, Omokhudu and Ibadin, (2015) conducted another study on the disaggregated book value and earnings. The results from the study reported that disaggregated earnings had more incremental value relevant than did earnings. Also, disaggregated book value had more value relevant for accounting information than did book value.

A key difference between this current study and Omokhudu and Ibadin (2015) is that their test for value relevance was for the twenty year period from 1994 to 2013 for only 47 firms and excluded financial institutions. Financial institutions have been very important in the Nigerian capital market and have contributed more than 60% to the capital market. This current study used assets and liabilities and selected assets and liabilities, net income and operating expense, selected net income and selected operating expenses using both stock price and return regression models. Lastly, the current study computed statistical significance differences between the pre- and post-IFRS periods using Chow's (1960) test.

Rao's (2014) study on the effect of IFRS and value relevance of accounting information included was on selected African countries including Nigeria. The findings from the study revealed that earnings had more value relevance after IFRS adoption compared to book value among the selected African countries. Muhammad et al. (2015) examined the incremental value relevance of accounting information after IFRS adoption among Nigerian financial institutions. The study adopted Ohlson's model for stock valuations. They found that both earnings and book value were more value relevant after the IFRS adoption. The

study population was only financial institutions and therefore cannot be generalised, even though, financial institutions in the Nigerian capital market provided not less than 60% of total market capitalisation.

Isenmila and Adeyemo (2013) determined whether institutions in Nigeria were ready for IFRS adoption in Nigeria. The study's findings reported that four of the five institutions (professional bodies, the legal framework, FRCN and SEC)were ready for the adoption of IFRS but educational institutes were not, even though the World Bank in 2011 reported that these institutional factors were weak and needed to be updated and that better training should to be developed. Abdul-Baki, Uthman, and Sanni's (2014) study was based on financial ratios selected from four broad categories of financial ratios including profitability, short-term solvency, long-term solvency, and the overall mean investment ratio. The study found no statistical significance difference between the NGAAP and IFRS.

Odia (2016) determined the effect of financial statements for IFRS adoption in Nigeria using firm characteristics from 50 financial institutions listed in stock exchange market for the period 2011 to 2013. The study found that profitability and earnings quality were significantly associated with IFRS adoption. However, IFRS adoption was reported to have a significant relationship with returns.

Umoren and Enang (2015) used book value and earnings to determine the effect of IFRS on the value relevance of accounting information among Nigerian banks using Ohlson's

Model (1995) from 2011 to 2013. The study reported that earnings provided more incremental value relevance of accounting information after the adoption of IFRS. Book value did not support any incremental value relevance.

Tanko (2012) studied two periods, the pre-adoption period from 2007 to 2008 and the post-adoption period from 2009 to 2010, to examine the effect of IFRS adoption. He used multiple regressions and t-tests for selected banks to determine earnings, net income, cash flows and accruals. The findings stated that earnings were less value relevant, than net income, cash flows and accruals. This signifies that there was an incremental increase in value relevance after IFRS adoption.

Value relevance studies were also conducted before the adoption of IFRS in Nigeria. For instance, Titilayo (2011) examined the value relevance of financial information among the listed firms on the NSE using domestic standards. The study adopted 68 listed firms from different sectors for the period from 2002 to 2008 to determine the value relevance of accounting information. She reported a statistically significant relationship between share prices and accounting numbers, with a negative relationship between share prices and earnings for the listed firms. At the same time, the relationship between individual and institutional perceptions on value relevance had no significant difference. However, the study also found that dividends were regarded as the most widely used accounting the information followed by earnings and book value for investment decisions in Nigeria.

Adaramola and Oyerinde (2014) conducted their study before the IFRS adoption using 65 financial and non-financial firms listed on the Nigerian stock exchange. The study used

earnings and book values to determine a relationship with stock price. Findings of their study presented the value relevance of accounting information in the period of military regimes before and during the financial crisis. The study contradicted the results from World Bank reports of 2004 and 2011 that financial reporting was weak and non-compliant and contained non-disclosures of accounting information by Nigerian firms. However, these limitations of this study included sample size and the period of the study.

Studies on value relevance in Nigeria provided contradicting results for the period before the adoption of IFRS. For example, Abioden (2012) conducted research on the relevance of accounting information using simple regression models for the period of 1999-2009 for 40 companies from various sectors of the Nigerian Stock Market. Findings from the study showed that earnings provided more informative content than book values of equities, which showed a more significant value relevance for income statements than for balance sheet statements. Abubakar (2012) reported value relevance of intangible assets among high tech firms after IFRS adoption. Onalo, Lizam, Kaseri, and Ugbede (2014) provided evidence of value relevance of earnings information and time loss after IFRS adoption.

Most value relevance studies conducted after IFRS adoption in Nigeria are based on book value, earnings, cash flows and dividends neglecting disclosure requirements on assets and liabilities and income statements. Moreover, those studies used either smaller firms or financial institutions only. This present study is different from all other studies conducted in Nigeria; this is because the study determined the effects of IFRS on the value relevance of assets, liabilities and selected assets and liabilities, net income and operating

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expense, selected net income and operating expenses as well as earning information and book value, and book value, earnings, and dividends. The study also has an additional control variable for both price model and return model using audit "Big 4" firms that have not been used in most value relevance studies. The study also used both Ohlson's 1995 price model and Easton and Harris's 1991 return model. Furthermore, the statistical significance of adjusted R^2 or R^2 have not been adopted in any of value relevance researchers in Nigeria to verify statistical significance between pre-and post-adoption explanatory powers. This current study adopted Chow test (1960) to determine statistical significance structural break once it is detected in the certain range of p-value ($p<0.10$, 10% to $p<0.01$ 1%). In addition, this present study differs in disclosure reporting and methodology for the effect of IFRS adoption on the value relevance of accounting information. Table 3.2 present summaries of Nigerian value relevance and IFRS studies.

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3.7 Fair Value Measurements and Historical Cost Studies

The main purpose of value relevance studies is to determine whether financial information publicly reported and disclosed in the annual accounts of corporate financial statement or report fulfilled all the requirement of being useful for investors and economic decision making (Barth et al., 2001; Holthausen & Watts, 2001). The important part of the value relevance of accounting information that is related to research and motivated by the accounting criteria is the relevance and reliability as stated in the conceptual framework of financial reporting (Francis, Lafond, Olsson, & Schipper, 2004; Kothari, 2001).

Early value relevance literature on financial instruments investigated whether fair value disclosed can provide incremental value information to either recognised fair value or historical cost. The Fair Value Measurement Board (2006) stated that fair value of assets and liabilities is the price at which willing market participants would transact at the measurement date (FAS 157, 2006). The board provided three levels of valuation of assets and liabilities. Level 1 is solely based on market quoted prices. Level 2 is when quoted prices are not available. Level 3 is for assets that have one or more of the inputs without observable prices.

Several studies on fair value measurements provided evidence of the value relevance of fair values of banks and property on investments securities (Barth, 1994; Eccher, Ramesh, & Thiagarajan, 1996; Nelson, 1996). Petroni and Wahlen (1995) argued that the property-liability share prices can be explained by the fair value of equity investments and U.S. treasury securities. They found that find the value relevance of fair value disclosures of investments depended on the liquidity of the assets held. In contrast, Carroll, Linsmeier, and Petroni (2003) used a sample of closed-end mutual funds. They found that reliability issues when assets were measured at fair value in thin non-active markets were not as severe as feared: evidence showed consistent value-relevance even for such fair value estimates (based on the association between share prices and investment securities as well as between stock returns and gains and losses in securities).

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Aboody and Lev (1998) supported the value relevance of R&D capitalisation as a variable for software assets. They concluded that tangible assets were value relevant and significantly associated with market variables and future earnings. Barth et al. (1996) reported value relevance of loans as fair value, whereas Eccher et al. (1996) found that the fair value of limited settings was value relevant. Venkatachalam (1996) found derivatives and funds fair value to be positively associated with the stock market value of equity. In contrast, Nelson (1996) concluded that deposits, loans and long-term debt fair values were not value relevant.

Others have also studied fair value. Barth, Landsman, and Wahlen (1995) showed that greater volatility of accounting numbers was caused by the fair value modelling of financial instruments. Barth (1994) examined the historical and fair value measure of assets and related earnings on the value relevance of the investment securities of banks. The study's findings reported relative and incremental explanatory power with relative measurement errors for both historical and fair value measurements. Furthermore, fair value measurement estimates under stock return model for investment securities presented more significant explanatory power than historical costs. Additionally, no significant incremental power of fair value on gains and losses from securities investment was recorded, but historical power provided incremental significant explanatory power over fair value. In contrast, Ahmed and Takeda (1995) found that both realised and unrealised gains and losses were significant with a positive effect on returns compared to Barth (1994) with the controlling effects of other net assets.

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Mozes's (2002) article provides a residual-income valuation framework for assessing whether fair value disclosures required by SFAS 119, *Disclosures About Derivative Financial Instruments and Fair Values of Financial Instruments*, are value-relevant. The study adopted the valuation model to examine the relationship between fair value of book value and security prices of financial instruments. Specifically, the study found that the greater a firm's return on invested capital and growth rate relative to its cost of capital, the more negative the estimated relationship between fair value-book value differences for financial instruments and security prices.

Wang, Alam, and Makar (2005) examined whether derivatives disclosures under SFAS 119 and SFAS 113 on newly introduced fair value data using complete time series could provide additional information content that goes beyond earnings and book value. Their findings indicated the disclosures of banks on notional amounts were value relevant. The possible generalisation of these results provided evidence that equity values are linked with different kinds of unrecognised losses and gains in most cases but were not likely to produce the needed hypothesis on the positive relationship between unrecognised gains and losses with equity values.

In Cornett, Rezaee, and Tehranian's (1996) view, stock price reactions have a negative relationship to the primary capital ratio of banks. They also disclosed that the book value of the investment portfolio and assets had a positive relationship with changes in book value and the stock market value investment portfolio to assets. In another study, Barth found that revalued financial, tangible, and intangible assets can be value-relevant.

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Baboukardos and Rimmel (2014) mentioned that purchased goodwill provided value relevant accounting numbers for firms with greater disclosure only under IFRS.

Barth, Beaver, and Landsman (1996) concluded that changes between book value and stock prices in capital market could best be explained in a theoretical form as a function of the differences amongst fair value estimates under Statement of Financial Accounting Standards (SFAS) No 107. Five reasons are stated for using banks as follows:

1. SFAS 107 as it relates to bank disclosures was related only to financial instruments and thus are more important to banks than any other firm in the industry;
2 Fair value of total assets and total liabilities are more disclosed in SFAS 107 than other SFAS standards;
2. Assets and liabilities constituted 93% to 96% of total book values of assets and liabilities in the period of the study (1992 and 1993);
4. Analysts and preparers are worried about whether the disclosures would be sufficiently valued relevant and reliable to be part of financial statements, and
5. To determine the value relevance of loans' fair value estimates.

Their findings reveal that: 1) the significant explanatory power of fair value estimates existed under SFAS No 107 for banks' share prices was more than that which was provided by related book value; 2) the standard provided a consistent incremental explanatory power to loans' fair values; and 3) the fair value of loans did not reflect a joint significant variable related to loan default.

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On the other hand, Landsman (1986) was the first to adopt the balance sheet approach for his capital market research on pension assets and pension liabilities using a balance sheet model. No increase was found in the robustness of pension assets and liabilities to the capital market.

Equally, Barth, Landsman and Wahlen (1995) provided evidence that fair value in accounting variables was more value relevant than historical cost variables with no reflection of share prices in the incremental volatility in banks. This showed evidence of a violation of regulatory requirements of banks under fair value compared to historical costs. In other words, fair value in banks will assist in predicting violations of capital regulations.

In their study on the relevance of fair value disclosure, Khurana and Kim (2003) validated the hypothesis that more in formativeness existed in fair value than in the historical cost in financial reporting for financial instruments. The study used SFAS No. 17 and 115 on fair value disclosures by bank holding firms over the period from 1995 to 1998. Furthermore, they also stated that historical cost estimates on deposit and loans had more value relevance than fair values. However, loans and deposits are more actively traded and are usually involved subjectively with respect to the assumptions and methods used in fair value estimations.

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3.8 Value Relevance Studies on Independent Variable

This section discussed the value relevance studies literature on assets and liabilities, net income and expenses, earning information and book value and accounting information and dividends.

3.8.1 Value Relevance of Assets and Liabilities Disclosures

Studies on the value relevance of accounting information for assets and liabilities are limited in the literature. Even though, prior literature provided evidence of a higher quality of accounting information after IFRS adoption with a decline information asymmetries (Morricone, Oriani, & Sobrero, 2009). Empirical study on value relevance studies on goodwill has also been carried out. For example, Baboukardos and Rimmel (2014) concluded that fair value accounting on purchased goodwill generates relevant accounting numbers for firms that comply with IFRS disclosure requirements rather than with domestic financial reporting. Similarly, Xu et al. (2011) found that goodwill can convey value relevant information if moderated by firms' profitability. Isidro and Grilo (2012) measured goodwill as an intangible asset among European zone banks. The study reported that, with the introduction of IFRS and fair value measurements, accounting information is more value relevant. In contrast however, Bugeja and Gallery (2006) reported a loss in information content from goodwill as it ages, but an increase in information content under the new IFRS standards.

Chalmers, Clinch, and Godfrey (2008) studied the value relevance of disclosed intangible assets for the pre-and post-adoption periods of IFRS in Australia. They found that IFRS had more valuable information than domestic standards about intangible assets. Other studies have used balance sheet components to determine their relationship with stock prices. For instance, Oliveira, Rodrigues, and Craig (2010) consider goodwill and other intangible assets to be highly value relevant in relationship to stock prices, although, during the transition period from IAS to IFRS, no evidence showed any impact of value relevance on intangible assets. The positive effect of value relevance to goodwill was shown in the study. But, when intangible assets were disaggregated, improvement in the value relevance of other assets and intangible assets (goodwill and R&D) was found.

Studies on value relevance concerning pension liabilities on recognised versus disclosed pension liabilities have been conducted. For instance, Kun Yu (2013) examined the effect of value relevance on institutional ownership for pension liabilities. Companies under SFAS No. 87 that disclosed pension liabilities and subsequently SFAS No. 158 recognised from 1999 to 2007 was adopted for the study. They reported that off-balance sheet items in pension liabilities had more value relevance for companies with a significant institutional ownership following the pre-SFAS No. 158 period. Significantly, SFAS No. 158 improved the value relevance of disclosed off-balance sheet items in the pension liabilities for companies with a lower institutional ownership, and the increases in the relevance turned out to be less pronounced in firms with higher institutional ownership.

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Li, Shroff, Venkataraman, and Zhang (2011) documented the loss of value relevance to be significant under IFRS. Furthermore, Oliveira, Rodrigues, and Craig (2010) argued that net earnings, other intangibles assets and reported goodwill had a highly significant positive relationship with prices in the Portuguese capital market after the adoption of IFRS.

Few studies have tested the relevance of aggregated assets and liabilities, or aggregated book value and earnings. For instance, Landsman (1986a) examined aggregated and disaggregated assets and liabilities using pension funds and found that disaggregated assets and liabilities provided more information than aggregated assets and liabilities. Kadri et al. (2010) reported that disaggregated book value (assets and liabilities) and earnings (income statement) explained market value variation better than aggregated book value and earnings in the Malaysian context. Aharony, Barniv, and Falk (2010) investigated the effect of IFRS on goodwill, asset valuation and R&D with book value and earnings using the valuation method. The study found that all the variables exhibited value relevance of accounting information after IFRS adoption. Similarly, Aboody and Lev (1998) found aggregated assets and liabilities to be more value relevant. Morricone, Oriani, and Sobrero (2009) used listed firms in the Italian stock exchange for the period from 1996 to 2006 to investigate whether IFRS adoption had any effect on the quality of financial reporting on intangible assets. The study found a statistically significance decrease of intangible assets after the adoption of IFRS. In contrast, R&D expenditures did not have any significant value relevance in either domestic standards or IFRS.

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Gjerde et al. (2008) examined whether accounting information correlated better under IFRS than Oslo GAAP. They used the period for 2004 to 2005 from a sample of 145 firms listed on the Oslo Stock Exchange. The study reported an increase incremental value relevance of accounting information after the adoption of IFRS. In addition, the reconcilement from the domestic reporting to IFRS was marginally value relevant because of an increase in balance sheet items and net income normalisation.

Kabir, Laswad, and Islam (2010) conducted a study on the impact of IFRS adoption among New Zealand firms. The study found that total assets, and total liabilities, to present higher significant relationship with a market price under IFRS than under domestic standards. Huian (2015) examined the financial assets and liabilities reported by non-financial firms transitioning to IFRS among Bucharest stock exchange using 2001 for the Romanian Statement of Accounting Standard (RSAS) and IFRS. The study considered the financial ratio set as balance sheet, income statement and cash flows statements and profitability. The study found a low effect on the instruments by IFRS. Furthermore, financial assets and liabilities presented greater improvements under IFRS data. In contrast, Ball, Li, and Shivakumar (2015) reported a decline in financial reporting as a result of a higher proportion of assets and liabilities reported under IFRS for banks.

Omokhudu and Ibadin (2015) reported disaggregated book value and earnings to be more value relevant than aggregated book value and earnings after IFRS adoption in Nigeria. Omokhudu and Ibadin's (2015) study is different from this present study. Their study used aggregated nook value and earnings, while the present study used assets, liabilities, net

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income, and operating expenses. Furthermore, their study disaggregated book value into total non-current assets, current assets and current liabilities. This present study used current assets, fixed assets, current liabilities, and non-current liabilities. The earnings components adopted in their study were turned over, the cost of sales, depreciation and tax expenses. The present study adopted net interest income, operation income, and depreciation and tax expenses. The major difference is that their study adopted only the stock price model while the present study used both the stock price model and the stock return model with Chow test (1960) statistic measuring whether structural break is statistically significant for the pooled data.

The adoption of IFRS has provided more disclosures than the local GAAP in Nigeria, particularly for assets and liabilities. Under IFRS more assets and liabilities are stated at fair value compared to NGAAP. Therefore, reports of the World Bank in 2004 and 2001 described a deficiency in the domestic financial reporting in Nigeria. The IFRS disclosures reported more with respect to fair value measurements for assets and liabilities. Some important IFRS standards on assets and liabilities used to measure both assets and liabilities are IFRS 7, IAS 32, and IFRS 9 and IAS 39 this has differ significantly with NGAAP.

Standard IFRS 7 is for the *Financial Instrument: Disclosure*. The standard is about the significance of information disclosure to financial instruments to firms, as well as the extent and nature of risk that arises from those financial instruments both in quantitative and

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qualitative terms. The standard requires specific disclosures in relationship to financial assets as well as a number of other matters.

IFRS 9 is for *Financial Instruments: Classification and Measurement*. Although this standard was effective in Nigeria until 1 January 2015, it addresses the classification, measurement, and recognition of financial assets and financial liabilities. IAS 39 part of the standards has been replaced by IFRS 9 that is related to the classification and measurement of financial instruments. IFRS 9 required that financial assets be measured in two categories: 1) fair value measurements, and 2) measured at an amortised cost.

However, for the financial liabilities, IAS 39 retained the majority of the requirements. Even though the most important change in the standard is where the fair value option is not for financial liabilities, then the change in fair value due to firms own credit risk should be added to Other Comprehensive Income instead of to the income statement. Financial assets under IAS 39 are categories as financial assets at fair value through profit and loss, held to maturity financial assets, loans and receivables and available-for-sale financial assets.

IFRS 13 is for *Fair Value Measurement*. This standard defined fair value measurements concerning how fair value is applied to financial reporting.

Under NGAAP there are no equivalent standard of certain financial instruments at fair value in accordance with IAS 39, or IFRS 9. In the NGAAP there are some items that

are regarded as financial instruments, however, few types of financial asset are disclosed using investments definition. Nevertheless, under the NGAAP the definition of investments is broad, as all assets are covered. These assets could be obtained by a firm for the purpose of investment appreciation or generation of income regardless of any activities from trade, provision or production, trade or provision of services(PWC, 2011). Furthermore, this definition under NGAAP combines all financial assets like debt investment and equity as well as investment property.

The equity investments usually are carried at cost and measurement of long-term debt investments are on the basis similar to amortised cost under NGAAP. For certain assets and liabilities measured at fair value have been a significant difference area with difficulty in implementation. Among Nigerian firms lack of observable marketinputs and prices required for valuation methods complicates the purpose of fair value measurement. PWC (2011) stated that market prices in Nigeria are usuallywide-ranging as such is difficult to use fairvalue for assets and liabilities under NGAAP period.

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3.8.2 Value Relevance of Net Income and Operating Expenses Disclosures

Several studies on value relevance examined the relationship between income and price or returns (Barth et al., 1998; Choi, 2007; Chen & Wang, 2004; Easton, 1998). Like in book value studies, most studies on income statements are related to book value and earnings or net income (Baboukardos & Rimmel, 2014; Eng et al., 2013; Ohlson, 2001). Black and White's (2003) study provided evidence of a relative relationship between income and

balance sheet measures for standard setters with relevant information. While Chen et al. (2001) in a relative relationship study stated that both positive and negative earnings have relevant information for investors in the Chinese market.

Alali and Foote (2012) used the Abu Dhabi Stock Exchange (ADX) and examined the relevance of accounting numbers. They employed Easton and Harris's (1991) model for stock return and Ohlson's (1995) model for price for the period from 2000 to 2006. The study discovered a significant relationship between stock prices and returns with earnings and book value of equities, with a change and increase in value relevance from the beginning of the market in 2000. Studies on the decline of value relevance of earnings have also been conducted by Collins et al. (1997) and Yu and Fung (2010). According to Collins et al. (1997), accounting book value and earnings have relevant information that put together provided information can explain about 54% of the price variation of the cross-sectional data in market prices.

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The studies of Ahmed, Chalmers, and Khlif (2013), and Barth, Landsman, Lang, and Williams (2012) reported that net income and book value of equity have increased value relevance after IFRS adoption. Also, Barth et al. (2014) documented that IFRS effect on net income across IFRS and local GAAP to have increased among the UK and several other countries in Europe.Kabir et al. (2010) reported an increase in value relevance of net income after IFRS adoption. They also reported an increase in equity under IFRS as a result of increased in goodwill, investment and other tangibles.

Cutillas-Gomariz, et al. (2016) reported value relevance of accounting information after IFRS adoption with no persistent significant changes. However, nonrecurring items provided value relevance in the pre-IFRS adoption while operating income was value relevant at post-adoption of IFRS.

Hung and Subramanyam (2007) reported incremental value relevance of equity book value, but the aggregated adjusted net income was not from the 1998 and 2002 firms that adopted IFRS. However, the findings for the adjustments of the related net income cannot be generalised to financial firms adopting IFRS. This is because of substantial changes made on the IFRS by the IASB.

While Horton and Serafeim (2010) investigated the aggregated net income adjustments related to share-based payments and goodwill. The study found that the coefficients net income adjustments were positive and significant and net income adjustment, share-based payments and goodwill presented incremental value relevance after IFRS adoption.

Brown and Sivakumar (2003) concluded that GAAP net income was less value relevant than earnings information reported by managers. This is because net income reported under GAAP had more non-reporting items that showed declines in value relevance compared to operating earnings. Tsoligkas and Tsalavoutas (2011) investigated R&D assets and expenses in the United Kingdom after the adoption of IFRS. The study's findings reported that the capitalised portion of R&D had a positive and significant relationship with market values. They also reported that R&D expenses had a negative but significant relationship with a market value under IFRS. In contrast, Gong and Wang (2016) reported

a decline in value relevance after IFRS adoption for R&D expenses in countries that mandated immediate expenses previously or optional capitalisation is allowed for R&D.

Though earnings individually appear to decline over time in value relevance, at the same time, book value increased during the period of study. Dontoh et al. (2007) investigated the analytic content of stock prices and accounting information against the simultaneous relationship between accounting information and stock prices. Their findings showed a decline in price and predictive content of earnings over time showing much decline in the analytic content of price signals under IIFRS. Yu and Fung (2010) reported similar findings and also that noise trading increases over time due to variances in the basic values of stock prices under IFRS. Goodwin and Ahmed (2006), in examining the relevance of earnings among the Australian listed firms, found weak evidence on the decrease on earning relevance of average listed firms. In addition, firms that have capitalised intangible earnings had increased in value relevance.

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Prather-Kinsey (2006) measured two different capital markets using earnings announcements (Johannesburg Stock Exchange (JSE), South Africa and Bolsa Mexicana de Valores (BMV) Stock, Mexico), testing the relationship between book value and earnings with firm market value. He reported that book values were value relevant in both markets, with a significant and positive relationship between earnings or equity values and market value in the reported financial statements in the two markets. Also a significant immediate increase in earnings announcements occurred in the JSE.

Goodwin and Ahmed (2006) studied non-recognition of intangible assets on earnings with share price. Their results indicated that an average firm shows weak evidence in the decline of earnings value relevance. In addition, capitalised firms provided weaker evidence of a decline in earnings. They also found an increase in value relevance on earnings for firms that capitalise intangibles. Additionally, value relevance decreases of earnings were noticed for both capitalised and non-capitalised firms as they continued to grow. In addition, Francis and Schipper (1999) discovered a decline in the value relevance of earnings information, and an increase in the balance sheet value relevance and book value information.

Khanagha (2011) adopted two periods of accounting information using samples of the ADX under pre- and post-IFRS adoption periods to determine the value relevance of accounting variables. Two empirical (models) approaches were employed for the study portfolio: 1) the return approach and 2) the regression-variations approach. The assumption of the adoption of the two approaches is that they will offer different viewpoints on the issue of value relevance of accounting information in the ADX. The study adopted 17 entities that were listed on the ADX for the samples of the study from 2001 to 2008 with 136 firm-year observations for eight years using the regression-variation approach while the portfolio approach employed 119 firm-year observations for seven years. The results obtained from the two approaches provided evidence that the portfolio approach had more information content under the ADX capital market before adoption. Similarly, a decline in value relevance of accounting measures after the adoption of IFRS was noticed when the

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two approaches were combined. This concurs with Francis and Schipper (1999), who found that portfolio approach measures relevance more than the explained variation test.

Empirical studies on value relevance have also been conducted on components of income statements R&D. For example, Franzen and Radhakrishnan (2009) examined R&D expenses documented under loss firms for value relevance and compared it with the R&D of profit firms using a valuation model. The study reported that R&D expenditures were either positively or negatively associated with prices for both loss and profit firms. The study also found that coefficient estimations of R&D expenditures had smaller coefficient estimates than earnings before R&D. When control variables (firm size and industry) were introduced to R&D, it could marginally be proven to influence the value relevance of financial information (Oswald et al., 2000). In addition, Lev and Sougiannis (1996) are of the opinion that capitalised R&D, when earnings and book values are adjusted, prove to be value relevant.

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Dhaliwal, Subramanyam, and Trezevant (1999) found no evidence that comprehensive income has any strong relationship (in relationship to explanatory power) with returns or is a predictor of better cash flows than net income. Thus, net income has been found to have a stronger relationship with market equities. However, marketable securities, as components of comprehensive income, improve the relationship between income and returns. In contrast, Smith and Tse (1998), in two independent studies, found that comprehensive income items have no clear relationship with security prices. The findings show that de-

ferred tax accruals have incremental information content under income statement disclosures with a positive relationship with the firm value (Chang et al., 2009). Besides, below-the-line items under comprehensive income are more statistically significant than operating income under prices and returns in the Chinese market (Chen & Wang, 2004)

Tsalavoutas, Andre, and Evans (2010) investigated the relevance of net income and book value of equity on the Athens Stock Exchange (ASE) and found significant changes under the post-adoption period of IFRS. In particular, they found no incremental explanatory power significant on net income and book value relevance between the pre- and post-adoption periods. Both the beta coefficients on book value and net income provided a greater positive correlation that was significant under pre- and post-IFRS periods. Book value was reported to be more significant under IFRS with the decrease in net income at the post-adoption period. In contrast, Konstantinos and Athanasios, (2011) reported no significance evidence that the introduction of IFRS in the ASE stock market improved the relative value relevance of either book value or net income, either in combination or separately.

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However, in other studies of value relevance in developed economies, Agostino, Drago, and Silipo (2011) examined whether mandatory adoption of IFRS in selected European banks increased in the relevance of accounting data as it relates to bank share prices. The study used the valuation model to examine the relationship between share prices, book value, and earnings for the banks of EU-15 countries. They found that book value was

less relevant in the post-adoption period with the largest incremental effect in Germany and Italy, while the United Kingdom had the smallest incremental values.

Bartov, Goldberg, and Kim's (2005) found that earnings were better informed under IAS or US GAAP than German GAAP. They further posited that US GAAP was more rigorously described and, as such, provided more high impact information than German GAAP did. In addition, Jermakowicz, Prather-Kinsey, and Wulf (2007) reported value relevance to have increased significantly using IAS or US GAAAP on earnings compared to market place. In contrast, Cheng (2012) found less of a relationship between firm-specific characteristics and the value relevance of economic factors under new standards in US banks. Additionally, Callao, Jarne, and Laínez (2007) found no improvement of the relevance of financial information from domestic reporting because the gap existing between book and market value seemed to be wider.

Mohan and John (2011) examined value relevance of accounting information in relationship to the Indian stock market of "A" Group Banks (biggest banks in terms of capital) for the period from 2006 to 2010. The study comprised 21 traded listed banks of "A" group in the Bombay Stock Exchange (BSE). The reason for choosing the sample were that "A" banks are the largest banks in India. The Ohlson model framework (1995) was adopted for the study to determine the relationship between market value and accounting numbers and how significantly accounting information explained the variation of market

equity values. The results showed that a positive and significant relationship existed between book value per share and earnings per share (BVPS & EPS) and stock market price per share.

Dung (2010) explored the value relevance of financial information on the Vietnamese Stock Market, using samples of 135 listed firms with 306 firm-year observations drawn from the non-financial institution for the period from 2003 to 2006. Much attention was given to the year 2006-2007 because of the rapid growth of the number of listed firms in late 2006. The results proved that there was a significant relationship between accounting information and the stock market. There also was evidence that earnings and book value had a significant relationship with stock prices with the stock market providing higher value relevance on earnings during capital booms in the Vietnamese stock market.

Other value relevance studies used both stock prices and returns. Using the Chinese market, Jun Lin and Chen (2005), for instance, determined the incremental information content of value relevance under Chinese Accounting Standards (CAS) and IAS. They used two approaches, price-level and returns models, for the listed firms that concurrently issued shares (A and B shares) using book value and earnings. The results demonstrated that book values and earnings under domestic reporting had more value relevance in both A and B shares. At the same time, there was partial value relevance in the reconciliation between earnings and book value from old to the new regime (CAS to IAS).

This finding is consistent with Chen et al. (2001) who conducted similar studies on A and B shares, except that CAS was more value relevant than IAS. In contrast, Bao and Chow

(1999) had a different view in their studies because they found more of an increase in value relevance under IAS than under CAS. This also concurs with Liu, Yao, Hu, and Liu (2011) that IFRS convergence improved the value relevance of accounting measures in the Chinese market.

Gjerde, Knivsfla, and Sættem (2011) studied the Norwegian Stock Exchange (NSE) to investigate the relevance of financial reporting for a period of 40 years using pre- and post-adoption of IFRS. They reported evidence of a value relevance increase after the adoption of IFRS with an improved relationship between accounting numbers. They also discovered no evidence in the decline of balance sheets and income statements over the study period. In contrast, Chunhui Liu, Yao, Orleans, and Yao (2012) used the Peru Stock Market (PSM) to explore the value relevance of accounting data for domestic and new financial reporting. They discovered that the value relevance of financial information improved immediately after the adoption period but declined with major changes in financial reporting after adoption.

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In principle, the framework of IASB (2010) made it clear that every income and expenditure item was to be run through the income statement (Van Cauwenberge & De Beelde, 2007). However, it has been proven that disclosure requirements in IFRS are not fully complied with not only in developing countries but also in developed markets(Baboukardos & Rimmel, 2014).

Maudos and Solís (2009) provided determinants of net interest income on the value relevance of accounting information. The study models used net interest margin that included

operating costs, as the determinants. The findings showed that a high margin can be explained mostly by the average operating cost and market forces. The non-interest income increased during the period, but with low explanatory power. Kang and Zhao (2010) investigated depreciation incremental content across industries. They found that accumulated depreciation is value relevant, but little value relevance existed for non-real estate industries under IFRS. Gore and Stott (1998) reported no significant relationship for depreciation, with stock returns, but operating income, net income and gains on sales of properties were significantly associated with the stock return.

Ahmed, Neel, and Wang (2013) used 20 countries to determine the effect of IFRS and the value relevance of accounting information in 2005. The study found that IFRS firms increased in income smoothing exhibiting significant incremental value relevance after IFRS adoption with a decrease in timeliness of loss recognition. However, the study did not find any significant differences across benchmark firms that adopted IFRS in beating earnings targets. Therefore, they concluded that IFRS adoption did not lead to an increased quality of accounting information.

Few studies have reported operating income value relevance of accounting information. Among the studies is that of Brown and Sivakumar (2003) who determined operating income presented more value relevance of accounting information provided by the IFRS than domestic financial reporting in the United States. Kwon (2014)reported incremental value relevance of operating income after IFRS adoption among Korean firms.

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Martinez, Fihlo, and *Anunciação* (2013) reported a negative relationship between temporary book-tax differences with variations in earnings before interest and taxes and a positive correlation between book-tax differences with income tax expenses for both pre-and post-adoption periods of IFRS on the Brazilian BM&F Bovespa.

From the financial statements, net income is equal to total revenue plus gains minus expenditures and losses. Comprehensive income equals net income in addition to other items collectively referred to as other comprehensive income. Studies have tried to identify the value relevance of components of other comprehensive income and market prices. In the European Union, for example, Cimini and Mechelli (2013) posited that gains and losses on remeasuring available-for-sale financial assets (AFS) on financial institutions to be value relevant in banks. They also found other sectors to be less transitory. Similarly, Cahan, Courtenay, Gronewoller, and Upton (2000) found that assets revaluation increment and foreign currency adjustments under OCI have no incremental power over net income in New Zealand.

Jones and Smith (2011) extended the literature of value relevance on gains and losses as reported under Other Comprehensive Income (OCI) and as Special Items (SI), to predict cash flows. The results provided evidence that both OCI and SI gains and losses were value relevant. In contrast, SI gains and losses exhibited no persistence, while OCI exhibited negative persistence. There is a stronger predictive value under SI gains and losses for forecasting of future cash flows and net income with OCI having a weaker predictive value on gains and losses. Cimini and Michele (2012) observed 125 European listed firms

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for the period from 2009 to 2010 to determine value relevance of OCI. The findings of their study reported significant positive value relevance of OCI related to net income and gains or losses available for sale financial assets.

Studies on the relationship between accounting measures and non-accounting measures have also been also documented. Choi (2007), for example, reported a relationship between the income statement and bank independence. The results showed that income statement value relevance increased with a banking firm's dependence. They further showed that bank independence influenced the value relevance of the income statement because of influence on income statement conservatism.

Dhaliwal, Subramanyam, and Trezevant (1999) examined the relationship between stock prices and comprehensive income in order to determine whether comprehensive income measures have better performance measures than net income. Conclusive evidence is reported showing net income with superior measures in determining stock returns. Components of other comprehensive income were also examined, and they found that unrealized gains and losses have incremental content for stock returns in financial services. In contrast, Kanagaretnam, Mathieu, and Shehata (2009) provided evidence that reported net income is a better predictor than other comprehensive income components.

On the other side, the Nigerian stock market is considered to be an emerging market, on which investors and other potential users will require or rely on published financial reporting as their only source of information. In addition, the Nigerian economy has been growing rapidly in the past years in the global market, which requires relevant information

to bring more investors into the market. Liu and Liu (2007) used the arguments for two different stock markets in the Chinese market share for A, B, and H Shares and Alali and Foote (2012) in the Abu Dhabi Stock Exchange (ADX). However, the higher value relevant information involved greater costs and likely put the firms at an advantage over competitive positions.

These studies that were conducted on different economy and sectors have had mixed results; therefore, the current study will adopt the models used by the researchers under different settings and sectors to investigate the value relevance of GAAP/IFRS in financial institutions in Nigeria. Accordingly, Creswell (2003) stated that the literature can be repeated or replicated to understand if the same results will hold in a new site or new samples of persons for study.

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3.8.3 Value Relevance of Book Values and Accruals

A significant note on the standardised way on how to assess accounting information has not been provided, especially on the account amount effect on the earnings information investors used. Therefore, Barth et al. (2001) and Holthausen and Watts (2001) measured earnings information in terms of the ability to explain equities and changes in market equities. Kothari (2001) reviewed studies on earning information and the book value of equities over long period with the stock price and return and reported that investors used the information for economic decisions.

The relevance of book value and accruals has been questioned for a long period, particularly the positive relationship with stock return (Francis & Schipper, 1999). Ball and Brown (1968) and Beaver (1968) reported that earning information had a positive relationship with the market price of securities. They further stated that for periods in which earnings information is provided, information flow increases, and the stock prices would reflect the quality and content of information.

Hillier, Hodgson, and Ngole (2016) reported earnings and book value of equity improved value relevance after IFRS adoption among African countries. A more significant positive coefficient estimate was found in cash flow than in accruals' consistent persistence with stock prices in Aboody et al. (2002). Improvement on the value relevance of direct cash flow components continued after the adoption of IFRS in Australia (Clacher, Duboisee, & Hodgson, 2013). Also, Sarquis and Augusto (2015) reported increased in value relevance of accruals and cash flows from operation, however, cash flows provided a greater information content than future earnings after the IFRS adoption among 10 countries.

Lious, Cecilio, and Felix (2015) provided evidence that cross border IFRS adoption produced mixed results. The findings from their study reported more value relevance of operating cash flows than earnings in Australia and UK and earnings to have greater value relevance than operating cash flows in France.

Niskanen, Kinnunen, and Kasanen (2000) concluded that domestic financial reporting in Finland said that earnings had significant value relevance for investors, while IFRS earnings did not. This shows that earnings information provided greater incremental relevance

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of accounting information under Finland domestic financial reporting. Leuz et al. (2003) considered US GAAP earnings information to be more efficient when predicting the performance of the firms in the future than did IFRS earnings information. In contrast, Eng, Sun, and Vichitsarawong (2014) reported accrual quality not different from US GAAP to IFRS. While Meulen et al. (2007) also reported Chinese domestic earnings information to be more relevant than the IFRS.

Collins et al. (1997) found a decline in the incremental value relevance of earning information and book value. Conversely, over the sample period, they found a slight value relevance increase of accounting information. Barth et al. (2008) reported a significant increase in earning information. Furthermore, X. Li and Holly (2016) increased in value relevance after IFRS adoption for earnings quality.

Gee-Jung and Kwon (2009) conducted a study on book value, earnings and cash flows with security prices value relevance among the Korean stock market. The study found that book value was a more value relevant variable than were cash flows and earnings. Also, cash flows are more value relevant than the earnings. The aggregated book value and cash flow provided more value relevance of accounting information than the aggregated earnings and book values under IFRS.

Habib (2008) found that earnings had higher explanatory power than cash flows, even though the difference was not statistically significant. The findings also showed that both earnings and cash flow had incremental information content under stock return after the

IFRS adoption. Similarly, Papadatos and Makri (2013) used yearly cross-Sectional regression for the period from 2005 to 2010 and found that cash flows under IFRS provided no incremental information compared to earnings under IFRS,

Trabelsi (2013) studied the explanatory power of earnings and cash flows individually under IFRS and found that earnings performed better than cash flows when explaining security return variations. Furthermore, earnings had better incremental information than both did cash flows and funds from operations after IFRS adoption. Similarly, Dimitropoulos, Asteriou, and Koumanakos (2010) said that earnings presented better a predictor of accounting information after IFRS adoption than cash flows did. In contrast, Clacher, Ricquebourg, and Hodgson (2013) reported no change in value relevance of cash flows in both domestic financial reporting and in the IFRS period.

Prior studies presented evidence of a relationship between accrual and cash flows with stock prices and returns. For instance, Barth et al. (1999) provided evidence that accruals and cash flows had the more explanatory power for the relationship with equity market than did book value and abnormal earnings. Furthermore, accruals and cash flows valuation coefficients followed Ohlson's 1995 model specifications. Aboody, Hughes, and Liu, (2002b) reported cash flows to have more explanatory power than did accruals.

Ebaid (2012) determined whether accruals had more information content under IFRS than cash flows did. The results of the study proved that accruals had better incremental information content than did cash flows from operations. Similarly, Nam, Brochet, and Ronen

(2012) found that accruals had more incremental power than cash flows did from operations using stock return under IFRS. Sun, Cahan, and Emanuel (2011) examined the impact of IFRS on earnings quality among firms that were foreign cross-listed in the United States. They observed measures of earning quality as discretionary accruals, earnings persistence, target beating, as earnings response coefficient and timely loss recognition. The study found that earnings quality during the IFRS period did not exhibit any difference with respect to the pre-IFRS period especially when earnings quality is measured with discretionary accruals, earning response coefficient, and timely loss recognition. Furthermore, they reported a significance difference that led to incremental value relevance of earnings quality among cross-listed firms that were relative to matched firms.

Studies demonstrated the mixed results of accruals used as a proxy for earnings for IFRS adoption. For example, Prather-Kinsey (2006), using firms from the Johannesburg Stock Exchange and the Bolsa Mexicana de Valores Stock Exchange, found that earnings and/or book value were value relevant in explaining stock prices. Van Tendeloo and Vanstraelen, 2005 found that firms in Germany adopting IFRS provided higher accruals relative to firms in Germany reporting under German GAAP from 1999 to 2001. Karampinis and Hevas (2013) investigated the impact of the adoption of IFRS on the Greek tax-induced incentives for earning managements. The study reported that IFRS adoption lowered book-tax, thereby recognising financial income from the tax effect.Furthermore, tax pressure has been shown to be a negative and significant determinant of accruals in the pre-adoption of IFRS with a decline in the post-adoption period of IFRS. Doukakis, Siougle,

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and Vrentzou (2012) found that tax expenses under IFRS adoption provided value relevant accounting information for the investors

Dimitropoulos, Asteriou, and Koumanakos (2010) investigated value relevance of earnings and cash flows within the banking industry, considering other risk factors in the industry. They reported that earnings had incremental information content that is beyond cash flow. In addition, a positive impact but not a significant relationship existed with returns earnings and other risk factors having a negative impact on the valuation process with regard to bank size after IFRS adoption. Charitou (1997) proved that cash flows have more information content than earnings when explaining security returns.

Despite the growing concern for the value relevance of accounting information after the adoption of IFRS, little study exists on the relationship of earnings information with book value in the single model. The majority of the studies are on either on book value and cash flows or on cash flows and accruals. There is no clear way to access accounting amounts to reflect upon or provide accounting information to users.

In this case, Barth et al. (2001) stated that accounting information can be measured as the ability of book value and accruals to provide an explanation of market price or change in the market value of equities. Therefore, a common value relevance study method is to examine the relationship between accounting numbers and equities values (price or return). These equities values could be book value in combination with a minimum of one bottom line variable in earnings information that could be based on cash flows, accruals or combination of cash flows and accruals. This present study, therefore, adopted both

cash flows and accruals as accounting information. Although many countries have expended many resources on IFRS adoption using earnings, book value, cash flows and accruals in a combination of two or three, the combination of book value, cash flows and accruals has remained limited and, therefore, needs to be investigated.

The disclosure requirements of net income statements under IFRS and NGAAP are provided under the following standards to show how IFRS provide more disclosure than NGAAP.

The IAS 32 *Financial Instruments: Presentation* provided the requiremets for the finsncial inctrument presentations, specipically on how financial assets, financial liabilities and equity instruments are classified. Also, the requirement of the standards presented guidance on related interest, gains and losses, dividend as well as when assets and liabilities that are financial can be offset.

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The NGAAP and IFRS provided requirements for the income and statement of comprehensive income presentations as a primary financial statement. However, IFRS providescomprehensive income statements to be presented in two forms. The format requirements of IFRS, for expenses are either disclosed by nature or by function. In the Additional disclosure of expenses by nature is required if the functional presentation is chosen.

IFRS requires a minimum disclosure of the on the face of the statement of comprehensive income of te following items, (i)revenue income, (ii) finance Revenue,(iii) Share of after-tax results of associates, (iv) Finance costs, (v) joint ventures accounted for using the equity method, (vi) gain or loss recognised on the measurement to fair value less costs to sell or from disposal of assets or disposal groupsconstituting the discontinuing operations, and other comprehensive income. Howevr, the NGAAP does provide the concepts of nature and function. The formats to be followed for the profit and loss account are prescribed in the Companiesand Allied Matters Act (CAMA) of 1990. The CAMA act also describe some specific formats too be followed by banks and other non-bank financial institutions. For instance, in arriving at net income the portion is shown attributable to non-controlling interests. Also, some firms the requirement of CAMA is to disclose interim dividends as a deduction after calculating net income. Other firms disclose net income transfers on the face of the income statement to other reserves.

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The option of IAS 19 is that statement of comprehensive income is to include all non-owner changes in equity, the changes in revaluation surplus of PPE and intangible assets, the Actuarial gains and losses on defined benefit plans recognised in full in equity, the gains and losses from the translation of foreign operations, the gains and losses on re-measuring available-for-sale financial assets and effective portions of gains and losses of hedging instruments in cash flow hedges. The NGAAP provided all movements in reserves to be disclosed in the notes to the financialstatements.

The IFRS dividends presented as a deduction in the statement of changes in equity in the period when approved by the company's shareholders. Nigerian GAAP Interim dividends paid are disclosed on the face of the incomestatement. The proposed dividends are recognised when authorised byshareholders only.

3.8.4 Value Relevance of Book Values, Earnings and Dividends

Although several studies have cited Ohlson and the Ohlson model for their studies, using book values and earnings, very little literature has used dividends as reported by Ohlson (Pirie & Smith, 2008). With claims that IFRS has improved accounting information globally, considering the value relevance of accounting information based on book value earnings and dividends to determine if there is a change in their value relevance after the IFRS adoption is important.

The adoption of IFRS has been found to be associated with a decrease in earnings. For instance, Clarkson et al. (2011 and Goodwin and Ahmed (2006) presented evidence that the enhanced value relevance of IFRS is country specific. They reported that the combined effect of relevance of book value of equity (BVE) and earnings (NI) has changed with the adoption of IFRS with less consistency in Australia than in European countries. But Chalmers et al. (2011) reported that earnings were more value relevant than book value under IFRS in Australia.

Studies on the value relevance of book value and earnings for different countries, firms, and standards have also been conducted. For instance, Eng et al. (2013) examined the

value relevance of book value and earnings of firms in five Asian countries (Hong Kong, China, Singapore, Japan and Korea) that are reporting under US-GAAP, IFRS and domestic standards and listed among US American Depositary Receipts (ADRs) for the period from 2002 to 2011. For domestic samples, book value and earnings had a significant relationship with the capital market, even though book value had a higher incremental value relevance content than earnings. Nevertheless, firms from the five Asian countries operated in different business environments, but consistent results were documented for IAS-based accounting (Singapore and Hong Kong) and domestic financial reporting (Korea, Japan, and China). In addition, samples listed under ADRs had higher informative content in book value than earnings under US GAAP. In contrast, after the adoption of IFRS, earnings were found to be more value relevant than book value; however, a higher incremental value relevance of book value was reported for US GAAP users.

Kargin (2013) explored the relationship of book value (balance sheet) and earnings (income statement) with market value under two different accounting regimes from 1998 to 2011 for Turkish firms. They observed that book value improved during the period of IFRS adoption. Furthermore, the study discovered no evidence of earnings improvements in the post-adoption period. Value relevance of accounting information improved in the post-adoption period. In contrast, Suadiye (2012) examined the significance of IFRS on the value relevance of financial reporting among the entities listed firms in the Istanbul Stock Exchange for the period from 2000 to 2009. The study found a significant relationship between book value and earnings during the transition period.

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Agostino et al. (2011) investigated the relevance of the relationship between book value and earnings among European Banks for the period from 2000 to 2006 using domestic financial reporting to the transition to IFRS. The findings of their study demonstrated that book value and earnings contained more information content in the post-adoption period of IFRS compared to pre-adoption period. Studies on book value and earnings, the relationship between earnings and operating cash flows were also reported by researchers in other different regimes. For instance, Palea (2014) examined the value relevance of different financial statements in Italian firms under GAAP and IFRS. The study showed that separate financial reports were value relevant because they both provided useful information to the capital market. Contrary to expectations, the findings indicated that reporting under IFRS had less incremental information content than Italian GAAP. Clarkson, Hanna, Richardson, and Thompson (2011) focused on the effect of IFRS adoption in Australia and Europe between book value, earnings and market value. They reported an increase in the value relevance after the IFRS adoption in all the countries under study. Khanagha, Mohamad, Hassan, and Sori (2011) reported that earnings provided higher value relevance of accounting information than book value did after IFRS adoption among Iranian firms. However, in comparison, the combined explanatory power of between the pre-and post-adoption periods of IFRS for the book value and earnings, a decline in value relevance was noticed after the reform. This means that accounting information has not improved after IFRS adoption among firms listed on the Tehran stock exchange.

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Prior studies have also provided evidence on the decline value relevance of book value, earnings and dividends (Collins et al., 1997). Barth et al. (2008) investigated the value relevance of book value and earnings relationship with stock price and return for the IAS adopters during the period from 1994 to 2003 in 21 countries. They found an increased value relevance of book value and earnings for the price regression only. Ashraf, Jacinta, Hussein, and Elshandidy (2017) concluded that the value relevance of book value declined with an increase in earnings among German and UK firms after IFRS adoption. In contrast, they reported both book value and earnings to have increased in value relevance at long term for UK than German firms after IFRS adoption.

Al-Hares, AbuGhazaleh, and Haddad (2012) investigated the relevance of book value, earnings and dividends from a sample of non-financial firms listed on the Kuwait Stock Exchange (KSE). The study covers the period from 2003 to 3009. The findings of the study provided evidence of the value relevance of book value and earning after the IFRS.

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The treatment of earnings per share under IFRS defers with the Nigerian accounting standards. The following provide the treatment of the earnings under the two standards.

The standard IAS 33, for Earnings Per Shares(EPS), requires that alternative earnings per share to be disclosed and presented on the notes to the financial statements, even though some firms present it on the income statement face without making a full disclosure on the notes to financial statements

Under IFRS, IAS 33 applies to firms which securities are publicly reported or that are in the process of issuing securities to the public. [IAS 33.2] Other firms that choose to present EPS information must also comply with IAS 33. [IAS 33.3]. also an entity whose securities are publicly traded (or that is in process of public issuance) must present, on the face of the statement of comprehensive income, basic and diluted EPS for: [IAS 33.66]

(i) profit or loss from continuing operations attributable to the ordinary equity holders of the parent entity; and (ii) profit or loss attributable to the ordinary equity holders of the parent entity for the period for each class of ordinary shares that has a different right to share in profit for the period.

If an entity presents the components of profit or loss in a separate income statement, it presents EPS only in that separate statement. [IAS 33.4A] and that basic and diluted EPS must be presented with equal prominence for all periods presented [IAS 33.66]. If both parent and consolidated statements are presented in a single report, EPS is required only for the consolidated statements[IAS 33.4].

Under the NGAAP the earnings per share is reported under SAS 21 *earnings per share.* Standard use the terms (a) Adjusted Earnings Per Share which is referred as a figure carried in a financial statement as earnings per year for previous years after recalculating the EPS of such years, using the outstanding shares of the company as at the latest balance sheet date as a common denominator all the years. (b) Basic Earnings per Share Basic earnings per share is the amount of earnings per share based on the weighted average number of shares outstanding during the reporting period. (c) Bonus

Shares A bonus share is a share in respect of which purchase consideration is satisfied by capitalizing existing reserves, which already belong to the shareholders.

Warrants are prohibited in Nigeria by Section 149(1) of the CAMA, Cap. C20 LFN, 2004. Ordinary Shares an ordinary share represents a unit of the ownership interest in a company, which entitles its holder to participate in the earnings, dividends and assets of the company after other interests have been settled. 100 (h) Potential Ordinary Shares A potential ordinary shares is a financial instrument or any other contract, which could: (i) be converted into an ordinary share; or (ii) result in the calling of, or subscription for, ordinary share capital at a fixed price within a specified period of time.

3.9 Hypothesis Development

The present study is aimed at investigating the value relevance of accounting information for listed firms traded on the NSE for assets and liabilities, and selected assets and liabilities, income and operating expenses, selected income and expenses, earning information and book value, book value, earnings and cash flows as disclosed in the financial statements. Nigerian firms traded on the Nigerian stock exchange market published financial statements based on Nigerian accounting standards (SAS) up to 2011 before the adoption of IFRS. Upon adoption of the new standard, all listed firms including financial institutions that are trading on the Nigerian stock market were mandated to comply with the new

regulations effective 1st January 2012. Therefore, audited financial reports of these firms are expected to be published under the new standards in the period of study.

With this development of having new standards the assumption can be made that financial reporting under the new regime could be more value relevant compared to old standards. This is because several studies have shown that accounting information is more value relevant under the new regime (Alali & Foote, 2012; Ameer et al., 2012; Dung, 2010), although others have a divergent opinion (Eng et al., 2013; Gjerde et al., 2011). Other researchers found different results on the same market. For instance, Kadri, Azazi, and Ibrahim (2012) used both the market and non-market approach to determine the value relevance of book value and earnings in Malaysia. The market valuation approach for pooled data showed book value and earnings to be value relevant. The change in IFRS also significantly affected book value but not earnings. They also reported that book value and earnings were value relevant under Malaysian GAAP, only book value was value relevant under IFRS. However, the non-market approach provided no significant effect between earnings and cash flows under IFRS.

On the other side, the Nigerian stock market is an emerging market, for which investors and other potential users will either require or rely on the financial reporting published as their only source of information. In addition, the Nigerian economy has been growing rapidly during the past years in the global market, which requires relevant information to bring in more investors to the market. Liu & Liu (2007) used these arguments for stock

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markets in the Chinese market for A, B, and H shares as did Alali and Foote (2012) in the Abu Dhabi Stock Exchange (ADX).

Studies conducted on different economies and sectors have exhibited mixed results; therefore, the current study will adopt the models used by researchers in different settings and sectors to investigate the value relevance of Nigerian GAAP compared to IFRS adoption for Nigerian firms.

3.9.1 Value Relevance Assets and Liabilities Hypotheses

Many studies have investigated value relevance literature associated with fair value accounting for the financial instruments. Most have reported both recognised and disclosed fair value provided accounting information that is value relevant and present incremental information content to investors. For instance, Barth (1994) opined that fair value of components of assets provided better explanatory power than historical costs. Ahmed and Takeda (1995) reported that a positive and significant relationship existed between the disclosed components of net assets with the bank returns in a normal period. Eccher, Ramesh, and Ramu (1996) stated that book value and fair value disclosures in financial instruments related to market book ratios are value relevant. In contrast, Ruby and Wahlen (1995) discovered that fair value disclosures on others assets (investment security) did not explain share price more than historical costs. They documented that fair value reliability estimates affect disclosures related to value relevance.

Several studies have been conducted on the value relevance of accounting information, including accounting information prepared under pre- and post-adoption periods of IFRS (Alali & Foote, 2012). Most value relevance studies conducted for pre- and post-IFRS periods in emerging markets measured book value and earnings with firm market value (Alali & Foote, 2012; Eng, Sun, & Vichitsarawong, 2013; Kargin, 2013; Kwong, 2010; Oliveira, Rodrigues & Craig, 2010) because they are both summary measures of the balance sheet and earnings (Barth, Beaver, & Landsman, 1998), with few measuring components of assets and liabilities (Kadri et al., 2010). In studies on market-based accounting research, different valuation models have been adopted in determining the relevance of financial information (see., Cornett et al., 1996; Francis, LaFond, Olsson & Schipper, 2005; Francis & Schipper, 1999).

The majority of these studies provided supporting proof, for instance, Barth et al. (1995) and Eccher, Ramesh and Ramu (1996)..

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The IFRS adoption, considered as a set of single financial reporting quality standard by almost all the Nigerian publicly listed firms is assumed to improve the quality and, thus, the relevance of accounting numbers. Reporting that IFRS is a set of standards that are principle based, the accounting numbers will better reflect firm's performance and economic position (Barth et al., 2008). The consequences of the IFRS benefits, adoption could increase the information content of assets and liabilities, thus increases the predictive power of firms market value.

Many assets and liabilities are not disclosed under NGAAP using fair value measurement, several studies determining the characteristics these fair values emphasis on disclosures under GAAP of other more developed countries since asset revaluations are allowed in those countries, for instance, the UK and Australia. As with focusing of the literature on financial instruments(assets and liabilities), this study determines whether IFRS estimates can provide value relevance of accounting information. Particularly, the study hypothesis that assets and liabiltiies and components of assets and liabilities are relevant to investors.

Overall, recent studies on the effect of IFRS on balance sheet items document that IFRS have significant value-relevance. The Financial Accounting Standards Board (FASB) in 2015 claimed that IFRS on assets and liabilities provide more useful information to investors in making informed decisions than domestic standards. The Nigerian FRC in 2011 requires all firms to comply with the adoption of IFRS that reports fair value measurements on assets and liabilities. In contrast, prior to IFRS adoption in Nigeria, firms are only required to report on historical or the lower of cost on balance sheet.

The basic idea is to expand this study in the re-classification of balance sheet items by using current assets (CA), fixed assets (FA), current assets (CA) and current liabilities (CL)recognised under NGAAP and IFRS. Therefore, the difference between disclosures on assets and liabilities under different regimes with respect to value relevance can explain changes in share prices and returns. However, Huian (2015) concluded that financial assets and liabilities appeared to be hardly be affected by IFRS transition. Based on the FASB argument, this study establishes the following hypotheses:

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Hence, hypotheses for this study are as follows:

H1: Assets and liabilities disclosed under IFRS are more value relevant than assets and liabilities disclosed under NGAAP among Nigerian firms.

H2: Current assets, fixed assets, current liabilities and non-current liabilities disclosed under IFRS are more value relevant than disclosed current assets, fixed assets, current liabilities and non-current liabilities disclosed under NGAAP among Nigerian firms.

3.9.2 Value Relevance of Net Income and Operating Expenses Hypotheses

Thus, it is useful to investigate whether an income statement and components of an income statement under IFRS disclosure are more value relevant than a profit and loss account statement under the Statement of Accounting Standards (SAS) in the Nigerian context.

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Because the studies on value relevance in Nigeria before adoption of IFRS provided contradicting results, the importance new accounting standards that are expected to have more disclosures need to be examined carefully. The significance of improved disclosure under IFRS for financial instruments involves enhancing and improving accounting information for investors to make decisions; however, some of the literature has shown mixed results even in the same country (Kadri, Aziz, & Ibrahim, 2009; Mechelli & Cimini, 2014). Thus, studying disclosures is important for two important reasons: 1) having more disclosures

in the market will reveal a greater advantage to the investors and companies, assuming the information could be relevant to the market, and 2) studies on value relevance on Nigeria market have provided evidence that value relevance of accounting information existed in the market before adoption of IFRS.

Hung and Subramanyam (2007) provided evidence on the incremental value relevance of equity book value, but do not provide incremental value relevance of the aggregated adjusted net income under IFRS. Horton and Serafeim (2010) investigated the aggregated net income adjustments related to share-based payments and goodwill. The study found that the coefficients net income adjustments were positive and significant and net income adjustment, share-based payments and goodwill presented incremental value relevance after IFRS adoption.

The studies conducted for the Nigerian market are mostly on total book value and earnings, ignoring the components of net income and operating expenses and selected income and operating income components. Thus, it is important to look at the value relevance of income and operating expenses components to determine the value relevance of accounting information. In addition, having more disclosures under IFRS will be an avenue to investigate the value relevance as more disclosures are found in the new accounting standards (post-adoption).

Hevas and Siougle (2012) investigated the value relevance of the different categories of net income (for instance, net income , financial income, operating income, extraordinary income, other income). The study provided that there is no single concept of net income

applicable for equity valuation model, in all circumstances. They reported that positive total income could be appropriate concept to be employed for equity valuation model for profit firms but cannot be used for loss reporting firms.

In value relevance studies, the aggregated income and operating expenses (earnings) could be disaggregated into turnover (TO) cost of sales and operating expenses (COP), depreciation (DEP), finance cost (FC) and tax expense (TE). Focusing on net income components Xu and Cai (2005) usingOhlson (1995) equity valuation models incorporated disaggregated earnings into extraordinary profit , ordinary profit, and income taxes, while exceptional income, tax expenses,operating income, depreciation and net financing expenses disaggregated from earnings by Ballas (1996). Also, Ohlson and Penman (1992) in disagreeing earnings into operating expenses, taxes, other items, gross margin, amortisation, depreciation, and extraordinary items. Furthermore, Liang and Yao (2005) decomposedearnings into R&D, gross profit, operating expenses, marketing expenses, and other expenses. These items are found relevant in explaining market values of the firms.

In the context of the extant literature and disclosures reported under IFRS,this study hypothesizes that as net income and operating expenses and components of net income and operating expenses values are split into their component parts, the value relevance of accounting information under IFRS could increase. Consequently, the hypotheses are thus presented:

Therefore, the following hypotheses are posited:

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H3: Net income and operating expenses disclosed under IFRS are more value relevant than net income and operating expenses disclosed under NGAAP among Nigerian firms.

H4: Net interest income, operating income, depreciations and tax expenses under IFRS are more value relevant than net interest income, operating expenses, depreciations and tax expenses disclosed under NGAAP among Nigerian firms.

3.9.3 Value Relevance of Book Value and Accruals Hypothesis

A decline in the relevance of accounting information has been reported by many scholars (Eli Amir & Lev, 1996; Francis & Schipper, 1999a), in that accounting information has lost a significant portion of its value relevance with respect to other available information. Young (2001) argued that a strong relationship exists between accounting earnings and actual economic events in countries with strong investor relationships. Soderstrom and Sun (2007) concluded that differences in the quality of accounting information across countries remained after IFRS adoption, as a firm's overall institutional function reflects the political and legal factors of a country.

The prior literature exhibits inconsistent findings and the existence of information content of earnings outside cash flows. The claims of having inconsistency provide evidence that the incremental information content of cash flows beyond earnings have been inconclusive. Charitou (1997) reported that inconclusiveness from the previous literature shows weak explanatory power in the prior models and the unpredictability of earnings and cash

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flows to investigate cash flows. Research on earnings management and discretionary accruals quality provided the opportunity for differences between the two. Managers, on their part, attempt to use accruals below discretion in order to improve the performance of earnings and cash flows, which will reduce information asymmetry that will give rise to an unexpanded information risk and reduce the risk of an information premium demand of investors.

It is obvious from prior value relevance studies results reported that accruals as well as book values provided positive association with price and security returns values over time. Nevertheless, since the early periods of the studies (1990s), several worries have been articulated by researchers (Francis & Schipper, 1999) the practitioners of accounting in the financial press (Anthony, 1997; Elliot, 1994) that accounting information publicly reported, disclosed in firms financial reports, has lost a greater part of its relevant economic decision- usefulness reported from other sources of information that could be available in the stock market. However, Habib (2004) provided empirical evidence of significant negative association between earnings smoothing and earnings management measures with combine accruals and book value of equity value relevance.

Sloan (1996) reported earnings performance that is attributable to the accruals report lower persistence than earnings performance attributable to cash flows. He also concluded less distortion on cash flows than accruals as such earnings with a greater cash flows share are better. This is because there is a greater degrees on accruals system to relysubjectivity in its allocation and valuation, being body of doubt by market analysts.

Platikanova and Nobes (2006) in their study compared the information asymmetry among firms before and after the adoption of IFRS in EU. The findings reported a larger volatility in the information asymmetry component for UK and German firms. In addition they reported that firms from countries with more common earnings management showed a lower information asymmetry parts as compared to other countries. The interpretation of their result indicated that income smoothing declined information asymmetry.

Other studies do not provide similar results as disaggregating income into accruals and cash flows has not significant contribution to future prediction of earnings beyond the net income information itself (Sloan, 1996). The study of Choi, Kim, and Lee (2011) reported discretionary accruals value relevance with no significant impact on the non-discretionary earnings components like non-discretionary accruals and operating cash flows. Furthermore, during the crisis countries with weak institutions reported a decrease in the value relevance of discretionary accruals compared with strong institutions and Akbar, Shah, and Stark (2011)asserted that accruals do not have incremental value relevance relative to either earnings or funds flows. From the resulting effect of IFRS adoption, an increase in information content about accruals and book value could increase the power of prediction of both accruals and book value. If the firm's managers increased the IFRS reporting flexibility to provide information, accruals and book value reported under IFRS could be better and would have greater information content.

Furthermore, several standards need disclosures in respect to the assumptions used in investigating accounting items as recognised in the financial report for cash flows. Under

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Nigerian accounting reporting standards cash flows disclosed under IFRS significantly differs with IFRS financial reporting. Once firms convert to IFRS, there are changes that may arise in the consolidated financial reporting under IAS 7. For instance, adding of the new cash flows of the consolidated subsidiaries to the investing, operating and financing cash flows of the firm's cash flows financial reporting which are not reported under NGAAP.

Under IFRS managers could classify dividends received, interest received and interest paid within investing, operating or financing activities in the cash flows statements. In contrast, the NGAAP do not provide that but requires classification of these items as operating cash flows.

Also, the change in measurement of accruals provided under IFRS could also change the assumption and expectation of derived cash flows from non- NGAAP measures. The cash flows proxy measures reported from the income statement, like EBITDA, distributable cash and funds from operations could change as a result of accruals. Gordon *et al.*(2017) reported evidence of persistence variations of accruals and operating cash flows with the firm's choices of classification of some OCF reported under IFRS and US GAAP.

Prior research provide evidence from both developed and emerging markets, that book value and earnings(cash flows and accruals) are value relevant (Mostafa, 2014, Collins et al., 1997 Lev and Zarowin, 1999; Hellström, 2006; Al-Hares et al., 2012). However, a demand for further investigation is evidently required for some inconsistencies.

Due to these findings the following hypothesis is drawn;

H5: Book value and Accruals, disclosed under IFRS are more value relevant than Book value and Accruals disclosed under NGAAP among Nigerian firms.

3.9.4 Value relevance of Book value,Earnings, and dividends

The usual relationship between financial report of firms reported and market values have been called into inquiry by researchers. The significance of this call made the studies of Brown, Lo, and Lys (1999) and Francis and Schipper (1999a) provided empirical evidence of decline of accounting information in relation to both earnings information and book values value-relevance. In contrast, Elbakry et al.(2017) reported evidence of mixed reporting in UK and Germany by concluding a decline in book value and increase in earnings information respectively. However, they found in UK to have more incremental value relevance for both book value and earnings than in Germany.Hung and Subramanyam (2007) reported more value relevant on book value than earnings for an adjusted period and no difference in value relevance of the book value of equity and earnings was noticed under IAS and German GAAP. Also, Collins, Maydew, and Weiss (1997) concluded that combined earnings and book value do not declined, but rather increases in value relevance over the period. However, earnings have declined in value relevance as a result of increasing value relevance of book value.

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Several studies have used Ohlson (1915) for their studies using book value, earnings and other variables, but very few added dividends in value relevance research like Ohlson (Pirie & Smith, 2008). Until recently, scholars have started using the model as mentioned in Ohlson (1995) with divergent views. For instance, Al-Hares et al. (2012) indicated that dividends did not provide value relevant information in the presence of earning in the valuation model. In another case, when dividends are a stand-alone as a substitute to earnings they become value relevant. The power of explanatory between book value and earnings in the model became similar to dividends. Furthermore, when earnings and dividends are declared, the results for the individual variable become value relevant. In addition, the dividend pay-out ratio improved over time, showing that dividends policies do matter to the stock price.

Brief and Zarowin (1999) concluded that book value and dividends, reported similar explanatory power as book value and earnings. Also, firms that have transitory earnings, have greater dividends coefficient of determination (adjusted R^2)than earnings, however, book value and earnings provided similar explanatory power as dividends and book value. Lastly, dividends have higher explanatory power among the three variables. The results confirmed statistical significance increase in value relevance of dividends.

The treatment of dividend under SAS reported after the end of fiscal year reporting and before financial reporting periods are recorded and approved as liabilities in the financial reporting. Under IAS 21, dividends reported at the end of the reporting period but declared

before the financial reporting are certified for authorisation are not to be recorded as liability in the financial statements. The implementation of IFRS has been challenging and complex. Among the complexity on the standard is the issue of the payment of dividends (Robert, 2005). Under the domestic accounting standards anexemptions was made to allow subsidiaries firms not to account for any deficit on their shares to be written in their own financial reporting but under IFRS this is made possible. Also, under old accounting standards dividends were taken to be income and treated as available and as realised for distributions. However, the treatments under IFRS, dividends from the profits pre-acquisition are treated and taken to be income.

Firms usually come under serious problem when dividends is to be paid under IFRS as businesses need to have to contend with the effect of IFRS on their profit and net assets. The adverse effect of IFRS will still be felt on dividends even when firms reported profits that are higher under NGAAP.

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H6: Book value, earnings and dividends disclosed under IFRS are more value relevant than Book value,earnings and dividends disclosed under NGAAP among Nigerian firms

3.10 Literature Gap from Previous Studies

In summary, previous studies on assets and liabilities were on book value combine with the earnings on value relevance. Majority of the studies on assets and liabilities were based on historical cost and fair value measurements. The studies of Aboody

(1996) and Amir (1993) reported aggregated book value to be value relevant. Ibrahim, Danila, Yusoff, and Yatim (2002) and Landsman (1986a) disaggregated book value into assets and liabilities and reported value relevance of accounting information. Barth et al. (1996a), Liu et al. (2012), and Venkatachalam (1996) measured assets and liabilities using historical cost and fair value measurements and reported more value relevant of under fair value measurement.

Ohlson and Penman (1992) reported that disaggregated book value provide more incremental value relevance than aggregated book value. Some study also disaggregated book value by using intangible assets (Abubakar, 2015; Barth & Clinch, 1998). Others study fair value of financial assets (Christensen & Nikolaev, 2009; Zeng, Guo, & Xiong, 2012). Also, others used financial assets and liabilities (Huian, 2015), non-financial assets (Karampinis & Hevas, 2013), non-performing assets (Paul, Bose, & Dhalla, 2011) and some used disaggregated book value (non-current assets, intangible assets, current assets and current liabilities (Kadri et al., 2010), non-current assets, current assets, current liabilities using stock price(Omokhudu & Ibadin, 2015).

However, this study used assets and liabilities for the pre-and post-adoption of IFRS by incorporating audit "BIG 4" as a control variable to see the effect on the value relevance of accounting information among listed firms in Nigeria. This current study also used selected asset of current assets, and fixed assets, and liabilities using current liabilities and non-current liabilities with the audit "BIG 4" as control variable. The

Chow test (1960) was applied to pooled data for statistical break structural break between the two periods. Two computing models of stock price and return regressions were also used for the study.

On the net income and operating expenses and selected net income and operating expenses, prior studies concentrated on earnings and book value using either stock price or return model or combination of the two. For instance, stock price to earnings (Burgstahler & Dichev, 1997; Collins, Maydew, & Weiss, 1997; Papadatos & Makri, 2013), net income (Barth et al., 2014), some considered net income to comprehensive income (Dhaliwal et al., 1999). Ohlson and Penman (1992) opined that disclosure of the earnings and book value items serves as two summary measures signs of a firm's value. Nevertheless, the line items disclosure suggested that accounting information of earnings and book value are insufficient determinants value.

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Therefore, prior studies disaggregated earnings into line items. For instance, increase in net interest income (Maudos & Solís, 2009), operating and non-operating income to have strong relationship with stock price than aggregated earnings (Apergis & Sorros, 2009), financial income, operating income net profit, corporation tax and consolidated income(Fuensanta, Pedro, & Juan, 2016), also recurring operating income and net income value relevant(Brown & Sivakumar, 2003), and others used cost of sales, operating expenses, depreciation, finance expenses, tax expenses and reported to be value relevant (Omokhudu & Ibadin, 2015a), operating expenses, depreciation, finance cost, tax expense and earnings provided more value relevant than aggregated

earnings (Kadri et al., 2010) and operating income and corporation tax value relevant after IFRS adoption (Cutillas-Gomariz et al., 2016).

The study of Ohlson and Penman (1992) earnings also disaggregated into, operating expenses, gross margin, depreciations, extraordinary items, amortization and other items. The mixed findings suggested that decomposition of some net income components are informative and others are not (Bowen, Burgstahler, & Daley, 1986) others net income , financial income, operating income, extraordinary income, other income more value relevant(Hevas & Siougle, 2012). Also, net income, operating income, finance income, other consolidated income provided value relevance after IFRS adoption under stock return model (Fuensanta et al., 2016)

The mixed reporting from the literature provided evidence of using both stock price and return model regressions. Also, this study incorporated net income and operating expenses in one model using both stock price and return models. Furthermore, this study used net interest income, operating income, depreciation and tax expenses in one model using both stock price and return regression models. Control variable that has mostly been ignored by all the study (audit "BIG 4") has been used in the study. The Chow test (1960) was applied to pooled data for statistical break structural break between the two periods. Two computing models of stock price and return regressions were also used for the study.

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Similarly, research on earning information (accruals and cash flows) and book value focused on cash flows and book value, or book value and earnings, accruals and cash flows. For instance, some studies are on accruals and cash flows (Aboody et al., 2002a; Barth et al., 1999; Hand & Landsman, 1998), book value and cash flows (Omokhudu & Ibadin, 2015), book value earnings, and cash flows (Kwon, 2009), book value earnings and cash flows (Bogstrand & Larson, 2012), and cash flows(moderate and extreme) and accruals (moderate and extreme) (Mostafa, 2014).

Also, cash flows from operation more value relevant than earnings in Australia and UK and earnings more value relevance than cash flows in France(Lious et al., 2015) Majority of those studies used price models regression and few used both price and stock return models. Those studies did not use any test to determine the statistical significance differences between the two periods. But, this current study used both stock price and return regression model and also included control variable audit "BIG 4" to understand the impact of auditors in providing quality accounting reporting. Also, the study adopted Chow test (1960) was applied to pooled data for statistical break structural break between the two periods. Two computing models of stock price and return regressions were also used for the study.

The study on book value earnings and dividends as measures of accounting information has been conducted by both Easton and Harris (1991). After that several studies reported different results. For instance, the studies of Pourheydari (2008), and Richard and Zarowin (2013) reported book value to be weak when earnings in transitory and

dividends provide greater value relevance of accounting information. Other studies reported that book value and earnings do not provide value relevance of accounting information in the presence of dividends (Al-Hares et al., 2012; Jiang & Stark, 2013). Elbakry, Nwachukwu, Abdou, & Elshandidy (2017) reported higher explanatory poer for UK firms under IFRS than German firms for both book value, earnings and dividends. However, majority of the studies adopted stock price methods in determine the value relevance. This current study used both stock price and return model regression in determining the value relevance of accounting information between the two periods. The studies furthermore, used Chow test (1960) was applied to pooled data for statistical break structural break between the two periods. Two computing models of stock price and return regressions were also used for the study.

. The used of audit "BIG 4" that was seldom used in value relevance studies is been incorporated in the study. Even though, prior literature reported audit quality is a crucial components of financial reporting (DeFond & Zhang, 2014). Although, the benefits of audit quality on value relevance of financial reporting has been emphasised in the prior literature findings (Empirical and Theoretical), yet in emerging countries there is limited studies on the effect of audit quality for firm valuation (Mishari, 2016).

Majority of those studies used stock price and return models in their value relevance studies. Previous researches provided different answers to problem of scale, particularly due to deflation for regression equation by using a proxy of the scale (Barth & Clinch, 2009). However, this problem of scale has not provided unique solution with

regard to the problem, as different studies suggested diverse methods. For instance, Barth and Kallapur (1996) reported that deflation of variables particularly using it as an independent variable can worsen coefficient bias thereby, reduce estimation efficiency. Likewise, Christie (1987) and Lo and Lys (2000) supported the use of opening market value as a natural deflator. Also, Brown, Lo,and Lys (1999) concerning use of deflator argued that number of shares cannot be a good deflators, even though they agreed that beginning market value can decrease scale effect. In contrast, Barth and Clinch (2009) found number of shares outstanding to be more effective for mitigating scale effect. Equally, Easton and Sommers (2003) suggested that market capitalisation at the end of fiscal year an effective deflator.

3.11 Research Framework

Figure 3.1 is the framework for the study. This value relevance study is expressed based on market value as a linear function of assets and liabilities, income and operating expenses, earning information and book value, book value, earnings, and cash flows with stock price and returns. The dependent variables for the study are the market value of equities, comprising stock price models and stock return models. All the independent variables are regressed on dependent variables including audit big four as in other value relevance studies.

The first objective is to examine the statements of financial position as stated under IFRS and balance sheet as in NGAAP that have assets and liabilities as disclosed in the financial

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statements. Current assets and fixed assets are selected assets from total assets. The liabilities selected items are the current liabilities and non-current liabilities.

The second objective is to examine the income statements under IFRS and profit and loss account as in NGAAP. Net income is measured as income before earnings and taxes. Operating income is net income less operating expenses. The variables selected for net income are net interest income and operating income, and depreciation and tax expenses as under expenditure.

The third objective is to examine earnings information (accruals and cash flows and book values. Earnings information comprises accruals and cash flows. Accruals are measured as earnings less cash flows, while cash flows are cash flows from operations.

The fourth objective is to examine the value relevance of accounting information, which includes book value, earnings and dividends as provided under Ohlson's (1995) model.

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Audit "Big 4" is a control variable to examine the effect of auditors on the value relevance of accounting information. IFRS has been reported to provide higher reporting quality than the local GAAP, therefore, international auditors like Big 4 firms could provide better accounting quality than local Nigerian auditors. In this case, accounting information should be more value relevant under IFRS compared to local GAAP.

Independent variables

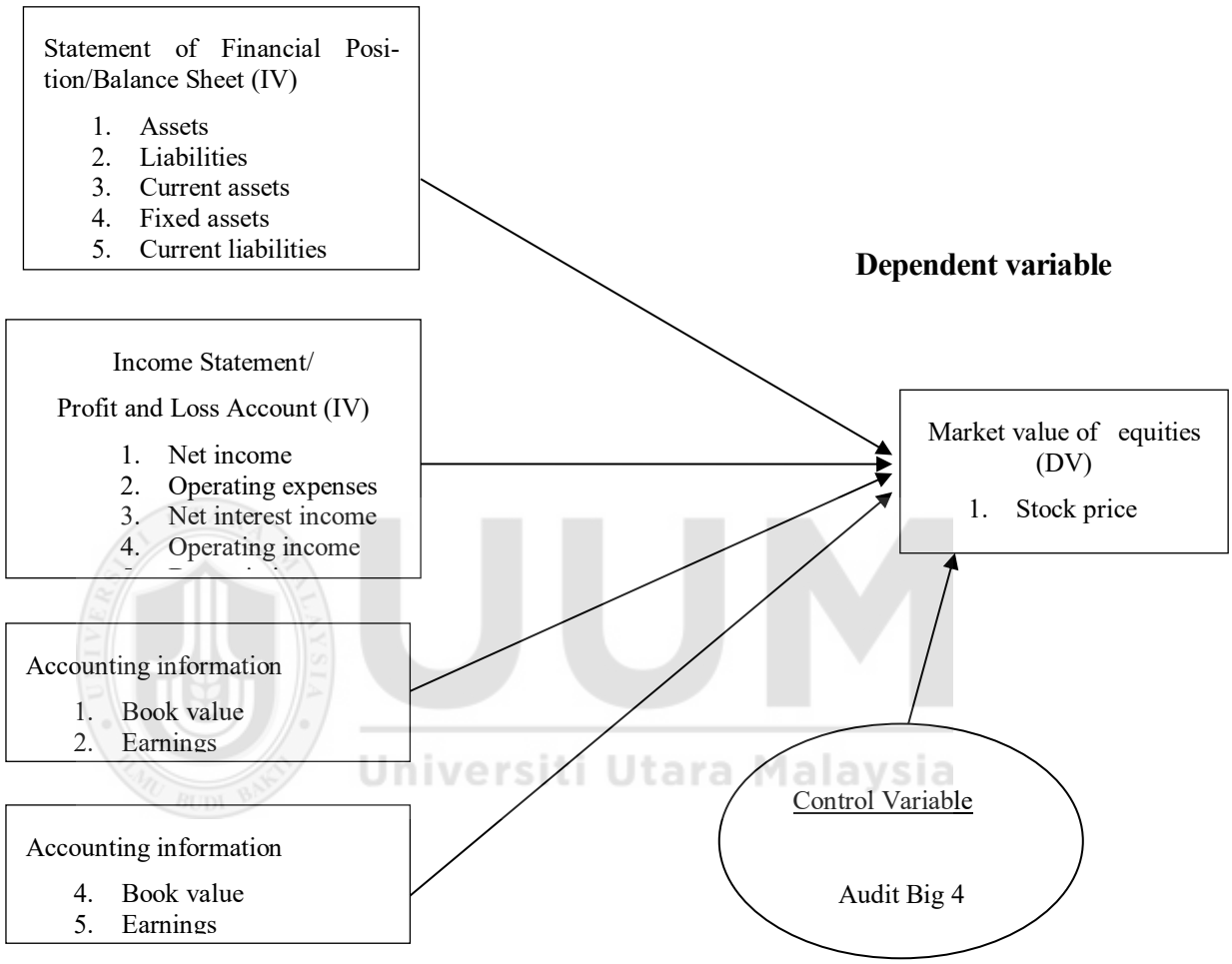

Figure 3.1 Research Framework

3.12 Conclusion

In this chapter, several issues were discussed in relationship to the capital market and value relevance accounting information. Different Sections examined value relevance theories,

disclosure requirements based on the objectives of the study and hypotheses development. The next chapter discusses the research method.

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Table 3.1 Summary of Nigerian Value Relevance Studies

Author(s)/Year	Country	Analysis	Study	Period	Firms	Data	Value relevant information
Abubakar 2015	Nigeria	OLS	NGAAP/IFRS adoption	2005-2011	6 High tech firms	Intangible assets	Intangible assets
Adeyermo & Oyerinde, 2014	Nigeria	OLS	NGAAP/IFRS adoption	1992-2009	Sixty-six Financial and non-financial	Book value, earnings and dividends	Weak during the crisis (1992-2009) but stronger between 2005-2009
Muhammad, Kamaru, & Ishak 2015	Nigeria	OLS	NGAAP IFRS adoption	2010-2013	Fifty-two Financial firms	Book value and earnings	Book value and earnings
Onalo, Lizam & Kasim 2015	Nigeria	OLS	NGAAP/IFRS adoption	2008-2013	9 banks	Earnings management & time loss	Earnings management & time loss
Omokhudu & Ibadin 2015	Nigeria	OLS	NGAAP/IFRS adoption	1994-2013	40 non-financial Firms	Book value and earnings and disaggregated book value and earnings	Earnings not significant, book value and disaggregated incremental value relevance
Omokhudu & Ibadin 2015b	Nigeria	OLS	NGAAP/IFRS adoption	1994-2013	40 non-financial Firms	book value, Earnings, Cash Flows & Dividend	Earnings, Cash Flows & Dividend value relevant
Umoren & Enang, 2015	Nigeria	OLS Questionnaire	NGAAP/ IFRS adoption	2010-2013	Banks	Book value and earnings	Earnings value relevant but book value not
Tanko, 2012	Nigeria	OLS and t-test	NGAAP/ IFRS adoption	2009-2013	5 Selected banks firms	Earnings, net income, accruals	Lower earnings and higher net income and cash flows
Odia, 2016	Nigeria	OLS	NGAAP/ IFRS adoption	2011-2013	Financial institutions	Profitability and earnings	Profitability and earnings
Rao, 2014	South Africa Nigeria, Ghana, Botswana, Egypt, and Kenya	Return	GAAP/ IFRS	2003-2013	All firms	Earnings and book value	South Africa, Egypt, Botswana, Kenya higher value relevance, Nigeria and Ghana lower correlation

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Table 3.2
Summary of Literature on Value Relevance

Author(s)/Year	Country	Analysis	Study	Data	Value relevant information
Aboody et al., 1998	UK	Ohlson Valuation Model	Income and cash flows	Asset revaluation, change in future operating performance, control variables: risk, growth and size	Asset revaluation significant with changes in future operating performance for over a period of 3 years, improves with additional control variables.
Aboody et al., 2002	UK	Ohlson Valuation Model	Market efficiency	Earnings and book value, accruals and cash flows	Increase in coefficient under returns of earnings and book value and cash flows greeter than accruals.
Agostin, Drago, & Silipo, 2011	Europe	Multiplicative interaction model	GAAP/IFRS	Book value and earnings	Book and earnings for more transparent banks
Francis & Schipers, 1999	US	Ohlson & return	US GAAP	Book value, earnings and cash flows	Decline in book value and earnings and increase in cash flows
Alali & Foote, 2012	UAE	Ohlson Valuation Model	GAAP/IFRS	Book value, earnings	Book value, earnings
Amir et al., 1993	UAE	Ohlson Valuation Model	GAAP/IFRS	Book value and earnings	Book value and earnings for high transparent banks
Bao & Jeong, 1999	Korean	Ohlson Valuation Model	GAAP/IAS	Earnings and Book Value	Book value & earnings significant under IAS
Barth, Beaver, & Landsman, 1996	US	Ohlson Valuation Model	SFAS 107	BV, fair value estimates of loans, securities and long term debt	Fair value estimates have high explanatory power beyond major assets and liabilities in share prices
Chen, Chen, & Su, 2001	China	Ohlson Valuation Model	SHARE A & B	Positive vs. negative earnings, earnings persistence, firm size & liquidity of stock.	SHARE A
Dechow, 1994	US	Ohlson Valuation Model	Accruals quality	Earnings, cash flows, accruals	Earnings significant than cash flows at short interval, cash flows-relatives to earnings at long measurements, earnings highly associated with returns, accruals improve earnings relationships with returns

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Table 3.2 Continued
Summary of Literature on Value Relevance

Author(s)/Year	Country	Analysis	Study	Data	Value relevant information
Dechow, 2002	US	Ohlson Valuation Model	Accruals quality	Working capital accruals and earnings	Accrual quality is related to earnings persistence
Brochet et al., 2013	UK	Ohlson Valuation Model	IFRS	Goodwill, book value and earnings	Firms with higher number of compliance under IFRS
Dung, 2010	Vietnam	Ohlson Valuation Model	IFRS	Earnings, Book Value	Book value and earnings. earnings higher during stock market boom
Eng et el., 2013	China, Hong Kong, Japan, Singapore and Korea	Ohlson Valuation Model	IFRS, US GAPP and GAAP	Book value and earnings	Book value and earnings value relevant-GAAP Book value-US GAAP and earnings-IFRS
Gjerde et al. 2011	Norway	Ohlson Valuation Model	GAAP	Balance sheet and income statements	No decline on value relevance for over 40 years
Hellstrom, 2006	Czech	Ohlson Valuation Model	Czech & Sweden	Earnings and book value	Swedish has high value relevance because of better institutional and environmental factor. Czech improves in value relevance with the improved institutional and environmental factors.

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Table 3.2 Continued
Summary of Literature on Value Relevance

Author(s)/Year	Country	Analysis	Study	Data	Value relevant information
Kadri, Aziz, & Ibrahim, 2009	Malaysia	Ohlson Valuation Model	GAAP/IFRS	Earnings, Book Value and operating cash flows	Market valuation approach Book value earnings-GAAP, non-market value approach book value-IFRS earnings and operating cash flows no significant change
Kanagaretnam, Mathew, & Shehata, 2009	Canada	Ohlson Valuation Model	GAAP/US GAAP	Available	Cash flows available and net income
Kargin, 2013	Turkey	Ohlson Valuation Model	GAAP/IFRS	Earnings & Book value	Book value and IFRS improve on value relevance
Khanga, 2011	UAE	Ohlson Valuation Model & Portfolio Approaches	GAAP/IFRS	Book value, earnings and cash flows	Cash flows after adoption. No improvement of value relevance under IFRS
Kwong, 2010	Malaysia	Ohlson Valuation Model	GAAP/IFRS	Book value and earnings	Book value and earnings-GAAP earnings management-IFRS
Lin & Chen, 2005	China	Ohlson Valuation Model	CAS/IFRS	Book value & Earnings	A share book value and earnings more value relevant. CAS more value relevant
Liu, Yaoh, Orleans, & Yao, 2012	Peru	Ohlson Valuation Model	IAS/IFRS	Earnings, Book Value	Improve under IFRS. Decrease with fair value measurements
Mechelli & Cimini, 2014	Europe	Ohlson Valuation Model	IAS/IFRS	Net income, comprehensive income and other comprehensive income	Net income more value relevant than comprehensive income. Other comprehensive income more value relevant than net income
Mishari (2016)	Kuwait	Ohlson Valuation Model	Audit Big 4	Book value, Earnings,	Audit quality value relevance
Mozes, 2002	US	Residual income model	SFAS 119	Fair value on book value, unrealized gains and losses	Fair book value insignificant, unrealized gains and loans significant

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Table 3.2 Continued
Summary of Literature on Value Relevance

Author(s)/Year	Country	Analysis	Study	Data	Value relevant information
Palea, 2014	Italy	Non-linear model	GAAP/IFRS	Earnings and dividends	Different financial statement under GAAP or IFRS value relevant. GAAP more value relevant.
Prather-Kinsey, 2006	South Africa & Mexico	Ohlson Valuation Model	JSE/MBV	Earnings announcements	Book value & Earnings value relevant under JSE/MBV. More significant in MBV 2000
Saudiye, 2012	Turkey	Ohlson Valuation Model	GAAP/IFRS	Earnings, & Book Value	Both relevance under GAAP/IFRS. Book Value more relevant under IFRS.
Titilayo, 2012	Nigeria	Ohlson Valuation Model, random effect and t-Test	GAAP	Dividends, book value and earnings	Dividends more value relevant than earnings and book value. Negative earnings and share prices value relevant
Tsalavouts, Andre, & Evans, 2010	Greek	Gray Comparable Index	GAAP/IFRS	Shareholders equity, net profit, Big 4, gearing	Gearing/ Liquidity under IFRS, Big 4 impact on net profit, liquidity, gearing. No effect on fair value measurements
Wang, Alam & Makar, 2005	US	Ohlson Valuation Model	SFAS 119 & 113	Earnings, book value, abnormal earnings on non-financial interest-sales as mediating (growth)	Trading derivatives, foreign exchange, trading interest derivatives

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CHAPTER FOUR

RESEARCH METHOD

4.1 Introduction

Previous studies on value relevance literature were reviewed in Chapter 3. This current chapter focuses on the research methodology to test the hypotheses of the study. The models developed for this research adopted a combined design based on well-established market-based accounting research methods adopted by different researchers. In this chapter, the research process, model design, research design, sample population, regression models and a summary of variables measurements are provided.

4.2 Research Process

Different forms of value relevance studies have been tested using stock price and return models in various global markets with different results (Gandhi et al., 2013). This present study used all firms listed in the Nigerian stock market for the period from 2009 to 2013. The research study used data primarily generated from disclosures in the annual reports of listed Nigerian firms for both domestic standards and IFRS for the period 2009-2011 and 2012 to 2013 respectively. Data for the study were collected from three sources: 1) Thompson Reuters DataStream for non-financial institutions (total assets and total liabilities, operating expenses, depreciation and tax expenses, cash flows from operations, book value and dividend), and 2) Bank Scope DataStream for financial institutions (total assets and total liabilities, operating expenses, depreciation and tax expenses, cash flows from

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operations, book value and dividend), and 3), net income before extraordinary items, current assets, current liabilities and non-current liabilities, net interest income, operating expenses, and audit "big 4" are collected from the annual reports. The reasons for collecting such data from annual report are because of the adjustments from the annual reports. However, stock prices for all the firms were collected from Thompson Reuters DataStream.

Accordingly, the reason for dividing the years into two periods (pre-and post-adoption) is because the study investigated the value relevance of financial reporting under NGAAP and IFRS among Nigerian firms listed in the stock market, consistent with Graham et al. (2000) by running two regressions rather than one full sample regression.

This study used panel data is because the data contained similar individual variables measured over a period. According to Baum (2006), panel data is used where measurement of similar variables are the same over several periods. The data for the study was generated for a total of five years using three years (2009-2011) as the pre-adoption period of IFRS and two years (2012 to 2013) for the post-adoption period of IFRS, which includes measurements over time. In addition, the data have observations of multiple occurrences over multiple years for the same firms with similar characteristics.

The technique of estimation using panel data will take care of heterogeneity problem from selected samples (Kolapo, Ayeni, & Oke, 2012). Moreover, panel data has many advantages over time series or cross-Sectional data analysis because panel data allow for a large volume of observations, thereby, reducing any collinearity issues and increasing the degree of freedom among explanatory variables (Hassan, Romilly, Giorgioni, &Power,

2009). Thus, panel data improves the efficiency of the assumptions, and thereby, decreases the influence of any neglected variable problems that could arise (Hsiao, 1986). Furthermore, Gujarati and Sangetha (2007) stated that there is more informative data, less co-linearity, more variability among variables with more efficiency and degrees of freedom in panel data.

The Nigerian Stock Exchange amendments to the listings rules of 30 May 2013 stated that all audited annual accounts of firms shall announce a full financial year of their financial statements once a financial year is available, nonetheless in any way it shall not be later than 90 days (3 months) after the relevant financial period. The majority of firms quoted in the Nigerian capital markets including, manufacturing, oil and gas, breweries, banks, non-banks financial institutions and cement companies have used 31 December as their accounting fiscal year end. Therefore, these companies are expected to submit their financial report by the March 31 of every year. All listed firms in Nigeria are to publish their audited financial statement to Nigerian stock market within three months (90 days) after the financial year (NSE 2011).

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As prior research by Barth and Clinch (1998), Petroni and Wahlen (1995), and Chalmers et al. (2011) did, all variables under stock prices are deflated by the total number of outstanding shares three months after the fiscal year to reduce the potential scale effect. The stock return variables are all deflated by the market capitalisation at the end of the fiscal year (Chalmers et al., 2011; Easton & Sommers, 2003; Francis & Schipper, 1999) and Lo and Lys (2000) used opening market value. Easton and Sommers (2003) stated that the most significant deflator is the market capitalisation at the end of the fiscal year. The independent variables are generated from Thomson Reuters (non-financial) and Bank Scope

(financial) Data Streams for the assets and liabilities, fixed assets, net income and operating expenses, depreciations, tax expenses, earnings, cash flows from operations, book value and dividend, and others handpicked from annual reports such as current assets, current liabilities, non-current liabilities, net interest income, operating income and control Audit big 4under NGAAP and IFRS. Therefore, all variables under stock return model are deflated by the market capitalisation at the end of fiscal year consistent with Easton and Sommers (2000)

Also, income statements have net income, operating expenses, net interest income, operating income, depreciation and tax expenses. The book value and accruals, where earnings information is defined as accruals and cash flows from operations, while accruals are computed as earnings less cash flow from operations. Earnings were defined following the guidelines by Charitou (1997a) and Dechow and Dichev (2001) (Earnings = CF + Accruals. Therefore, Accruals = Earnings – CF). The accounting information is the book value, earnings per share and dividends as shown in Table 4.1 below. All accounting numbers are the independent variables (IVs) and market value of stock price and returns are the dependent variables (DV)

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Table 4.1
Summary of Data Sources and Variables

Variables		Sources	Variables
IFRS	SAS (NGAAP)		
Statement of Financial Position	Balance Sheet Statement	Thompson Reuter Data Stream & Bank Scope Data Stream Annual report	Assets, fixed assets and liabilities, (Data stream) current assets current liabilities, non-current liabilities (IVs) (annual report)
Income Statement	Profit & Loss account	Thompson Reuter Data Stream & Bank Scope Data Stream and annual report	operating expenses, depreciation and tax expenses (IVs). Net income before extraordinary items, net interest income, operating income,
book value and accruals	book value and accruals	Thompson Reuter Data Stream & Bank Scope Data Stream	book value and accruals (IVs)
Market value	Market value	Thompson Reuter Data Stream & Bank Scope Data Stream	Stock price and returns (DV)
Audit	Audit	Annual reports	Annual reports (control variable)

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4.3 Research Design

A research design explains the outline by which a study is to be conducted with minimum interference on the authenticity of the research results. It is a general plan for getting solutions to the research questions directing a study. A research design describes the outline or blueprint intended to be employed in conducting a study, in such a manner that an outcome could not interfered with by another factor that will obstruct the result's validity (Polit & Hungler, 1999). Most value relevance studies adopt two major approaches in evaluating the relationship between accounting numbers and stock prices or returns.

There are basically two types of valuation models used that are found in value relevance literature. The two models are the stock price models and stock return models. Price models have been gaining momentum by the accounting researchers (Jing & Ohlson, 2000). Also, Liu and Liu (2007) reported that the price model had two advantages over return models. First, the stock price provides anticipation with any components of accounting numbers and thereby, incorporates such anticipation at the beginning stock price, which returns do not provided. Second, the price model allows for firm's market value as related to both earnings and book value of equities. In contrast, Kothari and Zimmerman (1995) reported that there is a yield of un-biasedness in the price models for earnings coefficients as stock prices only reflect the effect of cumulative earnings information.

The return model explains the relationship between accounting earnings and stock returns. Easton and Harris (1991) made the model popular by providing a detailed form of the annual return model that includes both earnings and changes in earnings (Amir et al., 1993; Harris et al., 1994). Most market research has heavily relied on the return model, although the price model is greatly used in accounting literature (Bao & Lynne, 1999; Collins, Maydew, et al., 1997; Eccher et al., 1996). Others combined both price and return models .Based on the different opinions of these scholars on the use of stock price and stock return, this current study employed the two models to determine the effect of IFRS on the value relevance of accounting information.

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4.4 Sample Study

The sample for the study comprised firms listed on the Nigerian stock market from the period from 2009 to 2013. All listed firms in the Nigerian stock exchange adopted IFRS from January, 2012. The total sample for the study during the periods was 194 firms listed

on the Nigerian Stock market that used both SAS and IFRS. In order to arrive at the population of a study, the criteria need to be stated based on specific characteristics that subjects must fulfil to be part of the study (Polit & Hungler, 1999). In this case, the eligibility for the subjects to be in this study is as follows:

1. Firms should be registered in Nigeria;
2. Must be listed on the Nigeria Stock market;
3. Should be in the Nigerian capital market from 2009 to 2013; and
4. Must have prepared their annual account based on NGAAP from 2009 and IFRS from 2012.

Results from the NSE have shown that the number of financial institutions registered with the stock markets has declined due to voluntary delisting, regulatory instructions, reforms or expansions within the operational sectors. For the past ten years to June 2013, no fewer than 63 firms delisted from the NSE (Nwachukwu, 2013). As of 2009, there were 24 banks supervised by the CBN with 3 banks not listed on the NSE. In 2011, the number of banks declined to 19 and from 2012 to 2013 and that number was further reduced to 14 banks because of delisting by the NSE for not meeting regulatory requirements.

The sample data used in the study includes all listed firms in the NSE and traded on the Nigerian Stock exchange capital market. The sample of financial data was obtained from three years before the adoption of IFRS (2009 to 2011) and two years after the adoption of IFRS (2012-2013) in line with Kadri, Aziz, and Ibrahim (2009) and Liu, Yao, Hu, and Liu (2011). The total samples collected and used for the objectives are summarised in Table 4.2.

Table 4.2

Number of the population and Samples

Items	Number	Total
Total number of firms (population)		194
less: Firms not in the year 2009-2011	20	
Firms not in the year 2012-2013	22	
Outliers	11	
Without complete data	15	
Total actual samplefor the study		126

In the sample outliers are highlighted as those value that reported different values from the data. These different values could affect the use of correlation. These effects could be no-linearity, correlation versus causality and practical significant relationship (Pallant, 2011). Different methods have been used to reduce or removed outliers depending on the statistical tool used in data analysis. For instance, Reilly (2007) in order to mitigate the effect of outliers inferences Winsorised variables at 5% levels. Dhaliwal et al.(1999) use top percentile of 95% of the distribution for the elimination of variables from the sample.

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Using STATA this study used Nick Cox's extremes command that provide an easier way of findings those cases with the most extreme high and low values. The command syntax used in identifying these extreme values is;

extremes dv iv

The format for the layout and command output above specify one variable, and reported the extreme values for it. The command uses all the variables and the result of output reported those variables with extreme values. The command provided useful way of determining if the extreme values really are that extreme, given the values of

the other variables. From the report of the analysis cases of 11 variables seems different from the all of the cases by providing suspicious value of 99. The suspicions variables are found in the net income statement for Dangote flour Meal for the year 2009, 2011, 2013, Aso savings Banks, 2010, 2013 and Niger Insurance, for the year 2010, 2012 and 2013 and Nigerian police microfinance bank for the year 2009, 2011 and 2013. Table 4.3 present the findings.

Table 4.3

Extreme values

Observation	Dv	IV
5	26.5656	19.2540
7	19.6754	36.9760
8	17.6276	18.6540
38	16.6543	8.7654
16	15.8761	10.8769
32	16.7667	9.4536
36	20.5444	10.3542
13	12.9861	22.4571
22	11.2435	3.5432
24	99.1743	6.599

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4.5 Regression Models

The present study adopted two valuation methods regression that were mostly used in value relevance studies such as stock prices and stock return to determine the value relevance of accounting information among Nigerian financial institutions.

4.5.1 Stock Prices and Returns Models

Two model approaches have been used frequently in previous studies related to value relevance of accounting information: 1) the price-based model regression, and 2) the stock returns model. These models describe the relationship between accounting disclosures

with price and return models (Barth et al., 1996; Venkatachalam, 1996). A significant amount of empirical research conducted on value relevance has its origin in the equity valuation models.

The choice of either using the stock price or the stock returns depends on the determination of what is reflected in the value of the firm or in determining what is reflected in the change on firm over a certain period of time (Barth & Beaver, 2000). In both stock prices models and return models, panel analysis of data has been presented for assets and liabilities, income and operating expenses, earnings information, and book value, earnings and dividends. However, the stock return model is reflected with changes in a firm over a certain period of time (Barth et al., 1996; Easton & Harris, 1991; Venkatachalam, 1996).

In the present study, data is partitioned into two panels for the stock prices for the years from 2009 to 2011 before the adoption period and for the years from 2012 to 2013 after adoption. Subsequently, in the stock price model all variables are deflated using the total number of shares outstanding (Aboody et al. 2002; Graham, Lefanowicz, & Petroni, 2003; Kanagaretnam, Mathieu, & Shehata, 2009; Landsman et al., 2012). According to Barth and Clinch (2009), the most effective way of reducing the scale effect in a value relevance study is deflating variables by the number of shares outstanding.

Although the stock price model is important in determining this relationship between the independent and dependent variables, Easton (1999) stated that the price model regression has the problem of scale, as such returns will be more reliable because it will provide a better power of prediction. In contrast, Liu and Liu (2007) reported that the price model has two advantages over return models and is used more by value relevance researchers than the return model. Also, a great concern has been shown for econometric issues raised

with stock price specification (Barth & Clinch, 2009; Easton, 1998; Kothari & Zimmerman, 1995). Even though, the stock return model is ambiguous empirically, it still presents an important framework in empirical studies for many reasons (Dechow et al., 1999).

Furthermore, Easton (1999) reported that the returns model can be derived from the price-level model by using the differences, a clean surplus assumption, changing terms and de-flating variables (p_{it}). To support the evidence, a further analysis using a stock return model is employed in the current study to be consistent with studies conducted by Biddle and Choi (2006), Chalmers et al. (2011), Kanagaretnam et al. (2009), and Fuensanta et al.(2016). Thus, combining the two models in one research will provide more convincing evidence of accounting information on value relevance after IFRS adoption(O'Hanlon, 2009). Previous studies presented several models in providing empirical findings on the value relevance of financial reporting as in Dechow (1994), and Kothari and Zimmerman (1995).

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The two approaches of price and return models yielded different answers in similar in-quiry; specifically, the value relevance of accounting numbers. Also, the methodology has been advocated in higher number of prior research (Barth et al., 2006; Hellström, 2006). Furthermore, Barth, Cram, and Nelson (2001) adopted the regression models in deter-mined the value relevance of accounting information but differs distinctively on results. The two models are distinct of one another as price model investigate whether accounting numbers are reflected in price and return model measures accounting numbers are re-flected in the changeover period of time.

The stock return is measured three months after the announcement date as computed by Easton and Harris (1991);

Total stock return (RET_t) $= \frac{(p_1 - p_0) + D}{p_0}$

Where, p_0 = beginning stock price;

p_1= Ending stock price; and

D = Dividends.

The Ohlson model is presented as follows:

The Ohlson (1995) model is presented as follows

$$P_{it} = \alpha_0 + b_1 B_{it} + b_2 E_{it} + b_3 V_{it} + \mu_{it}$$

This is presented as

P_{it}= stock market value of equity for firm i at period t

B_{it}= book value of equity for firm i at period t

E_{it}= earnings for firm i at period t

$\mathbf{V_{it}}$ = non-financial information market provided for firm i at period t

μ_{it}= error term for firm i at period t

The return model is computed as

$$RET_{it} = E_{it} + \Delta E_{it} + \mu_{it}$$

Where:

RET_{it} = stock return for firm I and end of period

E_{it}= earnings for firm i at period t

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ΔE_{it}= change in Earningsfor firm i at period it
μ_{it}= error term for firm i at period t

However, in order to remove the effect of scaling and a heteroscedasticity problem, all variables are deflated in the two models. Easton and Sommers (2003) concluded that un-deflated variables provided heteroscedasticity and scale-effect problems. Heteroscedasticity disturbances arise because larger (small) companies tend to produce larger (small) disturbances (Landsman, 1986b). Deflation of variables by outstanding shares will eliminate heteroscedasticity (Venkatachalam, 1996). Prior studies Barth, sBeaver, and Landsman (1992), and Kothari and Zimmerman (1995) recognised the effect of scale on firms value in order to reduce scale effect.

All independent variables under stock return for change or variation in stock return are measured based on changes in assets and liabilities, selected assets, net income and operating expenses, changes in book value and accruals from operations and changes book value earnings and dividends as in Ali and Hang (2000), Bushee and Noe (2000) and Chalmers at el. (2011) and scaled by market capitalisation at the end of fiscal year and in Easton and Sommers (2003).

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4.6 Normality Distribution

The components of normality are regarded as skewness and kurtosis. Skewness deals with the symmetry of the data distribution of a variable that has the mean skewed to either the left or the right. Kurtosis deals with the peakedness of the data distribution, which is either short or long. One of the most significant aspects of data distribution is the normal distribution (Hair, Money, Samuel, & Page, 2007).

Normal data distribution is a significant aspect of regression that can be assessed statistically or using the graphical method. In this current case, a statistical approach is being provided for the two models of NGAAP and IFRS. It is important to identify whether data is distributed normally before commencing the regression process. In comparing the mean with the median, the use of diagnostics to check for overall skewness means measuring whether the mean is greater than the median, which will indicate a positive skew. However, if the mean and median are equal, this indicates that symmetry relationship is established. However, if the mean is lower than the median the result of skewness produces a negative value.

Normality of the variables is not always necessarily required for analysis; however, it is better if the variables have normal distributions (Tabachnick & Fidell, 2007). The difference between the mean and median in the deflated data provided evidence of skewness in a data. Multicollinearity is noticed from the differences between the mean and median (Cahan et al., 2000). However, when data is transformed it dramatically decreases the skewness and kurtosis of the raw data (Alfaraih & Alanezi, 2011). Using nonlinear transformation of data like the square roots and logarithms are mostly used to change the shapes of distributions, which will make skewed data distribution more symmetrical and possibly normal. Hassan, Romilly, Giorgioni, and Power (2009) stated that, where multicollinearity becomes a problem, a logarithm transformation is necessary to reduce the effect of extreme values thereby bringing the distribution of these variables to normality.

Once multicollinearity exists the safest strategy to use is to transform variables in order to improve the normality of the data (Tabachnick & Fidell, 2007). Therefore, a normality

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check was conducted on the deflated data for the period before and after the adoption of IFRS. Normally distributed data needs to skew between -1 and +1(Kadri et al., 2010).

4.6.1 Multicollinearity

Multicollinearity, otherwise known as the Variance Inflation Factor (VIF), explains the level by which one independent repressor's effect could influence other variables. The Variance Influence Factor (VIF) measures whether collinearity exists between explanatory variables. Multicollinearity can show the economic importance of the variable differences (Barth, Beaver, & Landsman, 1998). According to Hair et al. (2007), a number of problems in regression can be caused by multicollinearity issues among the variables. When a mean VIF result of 10 or more is reported, then high collinearity exists, this requires an urgent solution. A variance factor with a VIF greater than 10 indicates higher collinearity (Gjerde, Knivsfla, & Sættem, 2011;Kargin, 2013). Furthermore, Kennedy (1992) reported that a VIF score of 10 is an indication that there is a serious case of multicollinearity.

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The Variance Inflation Factor (VIF) test was conducted to examine whether high collinearity existed between the independent variables. High correlation between variables is expected to produce biased results. According to Hair et al. (2007), a number of problems in regression can be caused by multicollinearity issues among the variables. Hair, Anderson, Tatham, and Williams (1995) stated that one of the various methods to check for the existence of the correlation among independent variables is through the test of multicollinearity. This explains the level by which one independent repressor's effect could influence another variable. A variance factor with a VIF of greater than 10 indicates high collinearity (Gjerde et al., 2011). However, to test for the effect of multicollinearity in each

of the models, a VIF test was performed for each of the regression models, given that each of the models is independent from one another.

4.6.2 Heteroscedasticity

Many studies using OLS for the market research used different methods for checking for heteroscedasticity in their model. The use of White's (1980) test for value relevance studies has been very common (Al-Hares et al., 2012; Kargin, 2013; Tsalavoutas & Dionysiou, 2014). Basically, the assumption of heteroscedasticity is about constant variance for the residuals that is broken(Tabachnick & Fidell, 2013). Also, the use of deflation techniques, the heteroscedasticity and scale bias issues could be minimised. This technique of deflation has been widely practised by previous researchers (Landsman, 1986a; Venkatachalam, 1996)

As all the models in this study are estimated based on OLS techniques for the coefficients and R^2. This present study tested for heteroscedasticity in both stock price and returns valuation studies, using White's (1980) consistent variances and standard errors as in Kargin (2013) and Gebhardt and Novotny-Farkas (2011).

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4.7 Test for Determining Value Relevance

The most common methods employed in determining the statistically significant differences between the in value relevance studies include Cramer (1987), Vuong (1989) and Chow (1960).

Cramer's (1987) Z statistic been used by many of the value relevance researchers when comparing the differences between adjusted R^2(Brown et al., 1999; Harris et al., 1994;

Kwon, 2014). The significant test to compare the differences between R^2 of the two periods was done with Cramer's statistic (1987), which is calculated based on the standard deviation of R^2 estimated for individual model, in order to check if the differences in R^2 are statistically significant as done in Ball et al. (2000). Cramer's Z statistic has been reported to be unsuitable for smaller samples that have less than 50 observations. Hope (2007) reported that Cramer test is an unusually has a weak test matric for testing differences between two samples R^2. This is because of the extreme Cramer test sensitivity to the certain number of observation that are included in a model(Hope, 2007). As a result of sensitivity of the model, the study could not adopt the test. Cramer test is computed as;

$$Z = \frac{R_1^2 + R_2^2}{\sqrt{\delta^2(R_1^2 + \delta^2(R_2^2)}}$$

where δ^2= the standard deviation of everyone regression

R^2= Is the estimated R-Squared as a function of sample size, the number of independent variables.

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Similarly, Vuong (1989) test is to compare two adjusted R^2s using the likelihood ratio test that Vuong described. The test if or non-nested models that is strictly for non-nested models used by Vuong. Non-nested model are combination of two different factors not related with each other according to the Vuong (1989).

Dechow (1994) reported that a likelihood ratio test be used to examine model selection that has no presumptions under the null hypothesis that the two models are statistically significant. In contrast, Ball et al. (2000) adopted Vuong's (1980) likelihood ratio statistic for the non-nested model in the selection between two different models. Furthermore, the

model is used in determining model selection not for comparing correlation strength of two models as it does not allow comparing the extent of the results (Klimczak, 1999).

Although the Vuong model is a test used in comparing two models that are non-nested for the selection of two different models but have been used in value relevance studies. Royston and Thompson (1995) stated that Voung test for non-nested data among two models it should be assumed to be true data generating process. Therefore, the Vuong test is to measure two competing models not the differences between the two R^2.

The Chow Test (Chow, 1960) is a method that is well known in econometric models(see, Kargin 2013). The model was designed originally to examine the identical variables form two different data groups to determine whether they similar enough to be pooled in one place. Verbeek (2008) stated that the use of the Chow test (1960) is important in determining differences between two computing models regressions across two defined subsamples that could be different. The Chow test (1960) was performed to establish whether a structural break exist in the pooled data between market values of equities and accounting numbers in the study of Kargin (2013) Zulu, Klerk and Oberholster (2015). A Chow test is used in determining whether a structural break exist in the relationship between market value and accounting numbers as a result of IFRS implementation (Devalle, Onali and Magarini, 2010).

According to Brooks (2008) Chow test (1960) can be computed in two forms. The first form is by spilting the samples into two periods and estimating the regression over the whole period. Secondly, by using dummay variable to determine structural change or breaks in a model. In order to get the structural break in this study model, Chow test was used. The test for Chow test is detected in case of structural break within the

statistical significant values ranging between the p values (if P<0.10 10%, P<0.01 1%).

Thus, the test for the Chow test (1960) statistics used in this study is as follows:

$$\text{Chow}= \frac{\{RSS-(RSS_1+RSS_2)\}/(2\text{K}-K_1-K_2)}{(RSS_1+RSS_2)/(n_1-n_2-K_1-K_2)}$$

Where, RSS = residual sum of squares for entire sample period

RSS_1 and RSS_2 = residual sum of squares for pre-adoption and post-IFRS adoption respectively.

K = Number of coefficients

$n_1$and n_2= Number of observations for the two periods (pre-and post IFRS)

$K_1$and K_2 = Number of coefficients

Chow test is for the F-distribution that has a degree of freedom (2k-k_1-k2) and (n_1+n_2-K_1-k_2). The Chow test null hypothesis is that the coefficients of variables for a model do not have any statistical difference between pre-and post-IFRS adoption in this study. Therefore, rejection of a single set of coefficient do not in the model capture the relationship between dependent and independent variables of the entire sample period. There is no structural break and the coefficients differs significantly between pre-and post-IFRS adoption periods(Devalle, Onali and Magarini, 2010).

Several studies on value relevance studies use Chow test (19600 to determine whether structural break exist between two periods in value relevance studies for the pre-and post-

IFRS adoption (see.,Graham, King & Bailes, 2000; Devalle, Onali &Magarini, 2010; Kargin, 2013; Zulu, Klerk & Oberholster, 2015). Based on the weaknesses of the Voung test and Cramer Z identify above, this study use Chow test (1990) to determine whether structural break in the difference between market value and accounting numbers exist. The regression analysis and Chow test is conducted using STATA 14 for the study.

4.8 Model Specifications and Hypothesis

This Section presented the regression models for the relationship between assets and liabilities, selected assets and liabilities, net income and operating expenses, selected net income and operating expenses, earning information, book value, book value, earnings and dividends for both stock price and return models were provided.

4.8.1 Assets and Liabilities Models

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Stock Price: Model 1

This study adapted the price regression model proposed byEccher, Ramesh and Thiagarajan(1996) and Francis and Schipper(1999) using assets and liabilities in valuation model. The model is a modified model using dummay variable as used in Tsalavout, Andre and Evans (2012) and Kargin (2013)

The hypothesis for the assets and liabilities for price model hypothesis (H1) model 1A is:

$SP_{it}^{SAS=}\alpha_0 + \beta_1 TA_{it}^{SAS} + \beta_2 TL_{it}^{SAS} + \beta_3 AUD_{it}^{SAS}\mu_{it}$----------Model 1

$SP_{it}^{IFRS=}\alpha_0 + \beta_1 TA_{it}^{IFRS} + \beta_2 TL_{it}^{IFRS} + \beta_3 AUD_{it}^{IFRS}\mu_{it}$----------Model 2

$$SP_{it}^{SAS+IFRS=} \quad \alpha_0 + \beta_1 TA_{it}^{SAS+IFRS} + \beta_2 TL_{it}^{SAS+IFRS} + \beta_3 AUD_{it}^{SAS+IFRS} + \beta_4 D +$$

$$\beta_5 DTA_{it}^{SAS+IFRS} + \beta_6 DTL_{it}^{SAS+IFRS} + \beta_7 DAUD_{it}^{SAS+IFRS} \mu_{it} \qquad \text{Model 3}$$

SP = =Stock prices per share at end of three months of the fiscal year end

SAS= statement of accounting standards under Nigerian accounting reporting

IFRS= International Financial Reporting Standards.

TA_{it} = Total assets per share for firm i at the period t

TL_{it} = Total liabilities per share in firm i at period t

AUD_{it} = Auditors as dummy variable with "1" for "Big 4" auditors and "0" if otherwise

D= Dummy variable for the structural break used as "0" for the pre-IFRS and "1" for the post-IFRS adoption.

B_5, β_6,& β_7= Dummy variable coefficients DTA, DTL and DAUD respectively

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Stock Return: Model 1

The methodology is based on the model provided by Barth, Beaver and Landsman(1996)and Venkatachalam (1996) that uses componets of balance sheet for return model and modefied for this study. The model is a modified model using dummay variable as used in Tsalavout, Andre and Evans (2012) and Kargin (2013)

The hypothesis for the assets and liabilities for return model hypothesis one (H1) model 1B is:

$$RET_{it}^{SAS} = \alpha_0 + \beta_1 TA_{it}^{SAS} + \beta_2 \Delta TA_t^{SAS} + \beta_3 TL_{it}^{SAS} + \beta_4 \Delta TL_{it}^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it} \qquad \text{Model 4}$$

$$RET_{it}^{IFRS=} \alpha_0 + \beta_1 TA_{it}^{IFRS} + \beta_2 \Delta TA_{it}^{IFRS} + \beta_3 TL_{it}^{IFRS} + \beta_4 \Delta TL_{it}^{IFRS} + \beta_5 AUD_{it}^{IFRS} \mu_{it} \qquad \text{Model 5}$$

$$RET_{it}^{SAS+IFRS} = \alpha_0 + \beta_1 TA_{it}^{SAS+IFRS} + \beta_2 \Delta TA_t^{SAS+IFRS} + \beta_3 TL_{it}^{SAS+IFRS} + \beta_4 \Delta TL_{it}^{SAS+IFRS} + \beta_5 AUD_{it}^{SAS+IFRS} + \beta_6 D + \beta_7 DTA_{it}^{SAS+IFRS} + \beta_8 D\Delta TA_{it}^{SAS+IFRS} + \beta_9 DTL_{it}^{SAS+IFRS} + \beta_{10} D\Delta TL_{it}^{SAS+IFRS} + \beta_{11} DAUD_{it}^{SAS+IFRS} \mu_{it}$$ Model 6

RET_{it} = Return at end of three months after the fiscal year end

SAS= statement of accounting standards under Nigerian accounting reporting

IFRS= International Financial Reporting Standards.

TA_{it} = Total assets for firm i at the period t

ΔTA_{it} = Change in total assets for firm i at the period t

TL_{it} = Total liabilities for firm i at the period t

ΔTL_{it} = Change in total liabilities for firm i at the period t

AUD_{it} = Auditors as dummy variable "1" for "Big 4" auditors and "0" if otherwise*(for control variable)*

D= Dummy variable for the structural break used as "0" for the pre-IFRS and "1" for the post-IFRS adoption.

$\beta_7, \beta_8, \beta_9, \beta_{10} \& \beta_{11}$ = Dummy variable coefficients DTA, DΔTA, DTL, DΔTL and DAUD respectively

μ_{it} = Random error term or disturbance error.

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4.8.2 Selected Assets and Liabilities Models

The model is for the selected assets and liabilities that have current assets, fixed assets, current liabilities and non-current liabilities using both stock price and return models regression.

This regression model is a modified Francis and Schipper (1999) by disaggregating assets and liabilities and including other information as suggested in the literature.The model is a modified model using dummay variable as used in Tsalavout, Andre and Evans (2012) and Kargin (2013)

The hypothesis for the selected assets and liabilities of price model hypothesis (H1) two Model 1C is:

Stock Price: Model 1

$$SP_{it}^{SAS=} \alpha_0 + \beta_1 CA_{it}^{SAS} + \beta_2 FA_{it}^{SAS} + \beta_3 CL_{it}^{SAS} + \beta_4 NCL_{it}^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it}$$

Model 7

$$SP_{it}^{IFRS=} \alpha_0 + \beta_1 CA_{it}^{IFRS} + \beta_2 FA_{it}^{IFRS} + \beta_3 CL_{it}^{IFRS} + \beta_4 NCL_{it}^{IFRS} + \beta_5 AUD_{it}^{IFRS} + \mu_{it}$$

Model 8

$$SP_{it}^{SAS+IFRS=} \alpha_0 + \beta_1 CA_{it}^{SAS+IFRS} + \beta_2 FA_{it}^{SAS+IFRS} + \beta_3 CL_{it}^{SAS+IFRS} + \beta_4 NCL_{it}^{SAS+IFRS} + \beta_5 AUD_{it}^{SAS+IFRS} + \beta_6 D + \beta_7 DCA_{it}^{SAS+IFRS} + \beta_8 DFA_{it}^{SAS+IFRS} + \beta_9 DCL_{it}^{SAS+IFRS} + \beta_{10} DNCL_{it}^{SAS+IFRS} + \beta_{11} DAUD_{it}^{SAS+IFRS} \mu_{it}$$ Model 9

SP_{it} = Stock prices per share at end of three months of the fiscal year end

SAS= statement of accounting standards under Nigerian accounting reporting

IFRS= International Financial Reporting Standards.

CA_{it} = Current assets per share for firm i at the period t

FA_{it} = Fixed assets per share for firm i at the period t

CL_{it} = Current liabilities per share for firm i at the period t

NCL_{it} = Non-current liabilities per share for firm i at the period t

AUD_{it} = Auditors as dummy variable "1" for "Big 4" auditors and "0" if otherwise

D= Dummy variable for the structural break used as "0" for the pre-IFRS and "1" for the post-IFRS adoption.

$\beta_7, \beta_8, \beta_9, \beta_{10} \& \beta_{11} =$ Dummy variable coefficients DCA, DFA, DCL, DNCL and DAUD respectively

μ_{it} = Random error term or disturbance error.

Stock Return: Model 1

This study adapted a stock return regression model, based on Barth, Beaver and Landsman(1996) and Venkatachalam (1996) that used components of balance Sheet model on return reggression.This study modified there methodology and adding other informatin components.

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The hypothesis for the selected assets and liabilities of return model hypothesis two (H2) Model 1D is:

$$RET_{it}^{SAS} = \alpha_0 + \beta_1 CA_{it}^{SAS} + \beta_2 \Delta CA_{it}^{SAS} + \beta_3 FA_{it}^{SAS} + \beta_4 \Delta FA_{it}^{SAS} + \beta_5 CL_{it}^{SAS} + \beta_6 \Delta CL_{it}^{SAS} + \beta_7 NCL_{it}^{SAS} + \beta_8 \Delta NCL_{it}^{SAS} + \beta_9 AUD_{it}^{SAS} + \mu_{it} \quad \text{Model 10}$$

$$RET_{it}^{IFRS} = \alpha_0 + \beta_1 CA_{it}^{IFRS} + \beta_2 \Delta CA_{it}^{IFRS} + \beta_3 FA_{it}^{IFRS} + \beta_4 \Delta FA_{it}^{IFRS} + \beta_5 CL_{it}^{IFRS} + \beta_6 \Delta CL_{it}^{IFRS} + \beta_7 NCL_{it}^{IFRS} + \beta_8 \Delta NCL_{it}^{IFRS} + \beta_9 AUD_{it}^{IFRS} + \mu_{it} \quad \text{Model 11}$$

$$RET_{it}^{SAS+IFRS} = \alpha_0 + \beta_1 CA_{it}^{SAS+IFRS} + \beta_2 \mathbf{\Delta} CA_{it}^{SAS+IFRS} + \beta_3 FA_{it}^{SAS+IFRS} + \beta_4 \mathbf{\Delta} FA_{it}^{SAS+IFRS}$$
$$+ \beta_5 CL_{it}^{SAS+IFRS} + \beta_6 \mathbf{\Delta} CL_{it}^{SAS+IFRS} + \beta_7 NCL_{it}^{SAS+IFRS} + \beta_8 \mathbf{\Delta} CA_{it}^{SAS+IFRS}$$
$$+ \beta_9 AUD_{it}^{SAS+IFRS} + \beta_{10} D + \beta_{11} DCA_{it}^{SAS+IFRS} + \beta_{12} \mathbf{D\Delta} CA_{it}^{SAS+IFRS}$$
$$+ \beta_{13} DFA_{it}^{SAS+IFRS} + \beta_{14} \mathbf{D\Delta} FA_{it}^{SAS+IFRS} + \beta_{15} DCL_{it}^{SAS+IFRS} + \beta_{16} D\mathbf{\Delta} CL_{it}^{SAS+IFRS}$$
$$+ \beta_{17} DNCL_{it}^{SAS+IFRS} + \beta_{18} \mathbf{D\Delta} NCL_{it}^{SAS+IFRS} + \beta_{19} DAUD_{it}^{SAS+IFRS} + \mu_{it}$$

Model 12

RETit = Return at end of three months after the fiscal year end

SAS= statement of accounting standards under Nigerian accounting reporting

IFRS= International Financial Reporting Standards.

*CA*it = Current assets for firm i at the period t

*ΔCA*it= Change in current assets for firm i at the period t

*FA*it = Fixed assets for firm i at the period t

*ΔFA*it= Change in fixed assets for firm i at the period t

*CL*it = Current liabilities for firm i at the period t

*ΔCL*it= Change in current liabilities for firm i at the period t

*NCL*it = Non-current liabilities for firm i at the period t

*ΔNCL*it= Change in non-current liabilities for firm i at the period t

AUDit = Auditors as dummy variable "1" for "Big 4" auditors and "0" if otherwise *(for control variable)*

D= Dummy variable for the structural break used as "0" for the pre-IFRS and "1" for the post-IFRS adoption.

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$\beta_{11}, \beta_{12}, \beta_{13}, \beta_{14}, \beta_{15}, \beta_{16}, \beta_{17}, \beta_{18}, \& \beta_{19}$ = Dummy variable coefficients DCA, DΔCA, DFA, DΔFA, DCL, DΔCL, DNCL, DΔNCL and DAUD respectively

µit = Random error term or disturbance error.

4.8.3 Net Income and Operating Expenses

$SP_{it}^{SAS} = \alpha_0 + \beta_1 BV_{it}^{SAS} + \beta_2 NI_{it}^{SAS} \beta_3 OE_{it}^{SAS} + \beta_4 AUD_{it}^{SAS} + \mu_{it}$----------Model 13

$SP_{it}^{IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 NI_{it}^{IFRS} + \beta_3 OE_{it}^{IFRS} + \beta_4 AUD_{it}^{IFRS} + \mu_{it}$------Model 14

$SP_{it}^{SAS+IFRS} = \alpha_0 + \beta_1 BV_{it}^{SAS+IFRS} + \beta_2 NI_{it}^{SAS+IFRS} + \beta_3 OE_{it}^{SAS+IFRS} + \beta_4 AUD_{it}^{SAS+IFRS} + \beta_5 D + \beta_6 DBV_{it}^{SAS+IFRS} + \beta_7 DNI_{it}^{SAS+IFRS} + \beta_8 DOE_{it}^{SAS+IFRS} + \beta_9 DAUD_{it}^{SAS+IFRS} \mu_{it}$ Model 15

SPit =Stock prices per share at end of three months of the fiscal year end

SAS= statement of accounting standards under Nigerian accounting reporting

IFRS= International Financial Reporting Standards.

BVit= Book Value of equity for firm i at the period t

*NI*it = Net income before extraordinary items for firm i at the period t

OEit = Operating expenses for firm i at period t

AUDit = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise *(for control variable*)

D= Dummy variable for the structural break used as "0" for the pre-IFRS and "1" for the post-IFRS adoption

$\beta_6, \beta_7, \beta_8, \& \beta_9$ = Dummy variable coefficients DBV, DNI, DOE and DAUD respectively

µit = Random error term or disturbance error.

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Stock Return: Model 2

The stock return is like the price regression based on the net income and operating expenses with change or variation in net income and operating expenses, using market capitalisation as a deflator of independent variables. The methodology is based on Jones and Smith (2011) and also used by Fuensanta et al.(2016) which are modified for this study to include oprating expenses and audit big 4. The model is a modified model using dummay variable as used in Tsalavout, Andre and Evans (2012) and Kargin (2013)

The hypothesis for the net income and operating expenses of return model hypothesis three (H3) Model 2B is:

$$RET_{it}^{SAS} = \alpha_0 + \beta_1 NI_{it}^{SAS} + \beta_2 \mathbf{\Delta} NI_{t-1}^{SAS} + \beta_3 OE_{it}^{SAS} + \beta_4 \mathbf{\Delta} OE_{t-1}^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it} \quad \text{Model 16}$$

$$RET_{it}^{IFRS} = \alpha_0 + \beta_1 NI_{it}^{IFRS} + \beta_2 \mathbf{\Delta} NI_{t-1}^{IFRS} + \beta_3 OE_{it}^{IFRS} + \beta_4 \mathbf{\Delta OE}_{t-1}^{IFRS} + \beta_5 AUD_{it}^{IFRS} \mu_{it} \quad \text{Model 17}$$

$$RET_{it}^{SAS+IFRS} = \alpha_0 + \beta_1 NI_{it}^{SAS+IFRS} + \beta_2 \mathbf{\Delta} NI_{it}^{SAS+IFRS} + \beta_3 OE_{it}^{SAS+IFRS} + \beta_4 \mathbf{\Delta OE}_{it}^{SAS+IFRS} + \beta_5 AUD_{it}^{SAS+IFRS} + \beta_6 D + \beta_7 DNI_{it}^{SAS+IFRS} + \beta_8 \mathbf{D\Delta} NI_{it}^{SAS+IFRS} + \beta_9 DOE_{it}^{SAS+IFRS} + \beta_{10} D\mathbf{\Delta} OE_{it}^{SAS+IFRS} + \beta_{11} DAUD_{it}^{SAS+IFRS} \mu_{it}$$

Model 18

RET_{it} = Return at end of three months of the fiscal year end

SAS= statement of accounting standards under Nigerian accounting reporting

IFRS= International Financial Reporting Standards.

*NI*it = Net income before extraordinary items for firm i at the period t

*ΔNI*it = Change in net income for firm i at the period t

*OE*it = Operating expenses (total expenses) for firm i at the period t

*ΔOE*it= Change operating expenses for firm i at the period t

AUDit = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise *(for control variable*)

D= Dummy variable for the structural break used as "0" for the pre-IFRS and "1" for the post-IFRS adoption

$\beta_7, \beta_8, \beta_9, \beta_{10} and\ \beta_{11}$ = Dummy variable coefficients DNI, DΔNI, DOE, DΔOE and DAUD respectively

μit = Random error term or disturbance error.

4.8.4 Selected Net income and Operating Expenses Models

The model is for the selected net income and selected expenses that have net interest income, operating income, depreciation and tax expenses as presented in the annual reports of Nigerian firms using both stock price and return models regression.

This study adapted stock price regression model based on the work proposed by Ohlson (1995), by disaggregating earnings and providing additional variable AUD as other informationconsistent with Chebaane and Othman(2014) that added Leverage, Size and Growth in price model.The model is a modified model using dummay variable as used in Tsalavout, Andre and Evans (2012) and Kargin (2013)

The hypothesis for the selected net income and operating expenses of price model (2) Hypothesis four (H4) Model 2C is:

Stock Price: Model 2

$$SP_{it}^{SAS} = \alpha_0 + \beta_1 BV_{it}^{SAS} + \beta_2 NII_{it}^{SAS} + \beta_3 OI_{it}^{SAS} + \beta_4 DP_{it}^{SAS} + \beta_5 TAX_{it}^{SAS} + \beta_6 AUD_{it}^{SAS} + \mu_{it}$$

Model 19

$$SP_{it}^{IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 NII_{it}^{IFRS} + \beta_3 OI_{it}^{IFRS} + \beta_4 DP_{it}^{IFRS} + \beta_5 TAX_{it}^{IFRS} + \beta_6 AUD_{it}^{IFRS} + \mu_{it}$$

Model 20

$$SP_{it}^{SAS+IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 NII_{it}^{SAS+IFRS} + \beta_3 OI_{it}^{SAS+IFRS} + \beta_4 DP_{it}^{SAS+IFRS} + \beta_5 TAX_{it}^{SAS+IFRS} + \beta_6 AUD_{it}^{SAS+IFRS} + \beta_7 D + \beta_8 DBV_{it}^{IFRS} + \beta_9 DNII_{it}^{SAS+IFRS} + \beta_{10} DOI_{it}^{SAS+IFRS} + \beta_{11} DDP_{it}^{SAS+IFRS} + \beta_{12} DTAX_{it}^{SAS+IFRS} + \beta_{13} DAUD_{it}^{SAS+IFRS}$$

Model 21

SPit = Stock prices per share at end of three months of the fiscal year end

SAS= statement of accounting standards under Nigerian accounting reporting

IFRS= International Financial Reporting Standards.

BVit= Book Value of equity for firm i at the period t

*NII*it = Net interest income for firm i at the period t

*OI*it = Operating income for firm i at the period t

*DP*it = Depreciation for firm i at the period t

*TAX*it = Tax expenses for firm i at the period t

AUDit = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise *(for control variable*)

D= Dummy variable for the structural break used as "0" for the pre-IFRS and "1" for the post-IFRS adoption

$\beta_8, \beta_9, \beta_{10}, \beta_{11}, \beta_{12}\ and\ \beta_{13} =$ Dummy variable coefficients DBV, DNII, DOI, DDP, DTAX and DAUD respectively

μit = Random error term or disturbance error

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Stock Return: Model 2

All variables except returns are deflated by the total market capitalisation.The methodology is based on Jones and Smith (2011) and also used by Fuensanta et al.(2016) which are modified for this study to include oprating expenses audit big 4 as additional information.The model is a modified model using dummay variable as used in Tsalavout, Andre and Evans (2012) and Kargin (2013)

The hypothesis for the net income and operating expenses of return model hypothesis four (H4) Model 2D is:

$$RET_{it}^{SAS} = \alpha_0 + \beta_1 NII_{it}^{SAS} + \beta_2 \Delta \mathrm{NII}_{t-1}^{SAS} + \beta_3 OI_{it}^{SAS} + \beta_4 \Delta \mathrm{OI}_{t-1}^{SAS} + \beta_5 DP_{it}^{SAS} + \beta_6 \boldsymbol{\Delta} DP_{t-1}^{SAS} + \beta_7 TAX_{it}^{SAS} + \beta_8 \Delta \mathrm{TAX}_{t-1}^{SAS} + \beta_9 AUD_{it}^{SAS} + \mu_{it} \quad \text{Model 22}$$

$$RET_{it}^{IFRS} = \alpha_0 + \beta_1 NII_{it}^{IFRS} + \beta_2 \boldsymbol{\Delta} NII_{t-1}^{IFRS} + \beta_3 OI_{it}^{IFRS} + \beta_4 \boldsymbol{\Delta} OI_{t-1}^{IFRS} + \beta_5 DP_{it}^{IFRS} + \beta_6 \boldsymbol{\Delta} DP_{t-1}^{IFRS} + \beta_7 TAX_{it}^{IFRS} + \beta_8 \boldsymbol{\Delta} TAX_{t-1}^{IFRS} + \beta_9 AUD_{it}^{IFRS} + \mu_{it} \quad \text{Model 23}$$

$$\begin{aligned} RET_{it}^{SAS+IFRS} = {} & \alpha_0 + \beta_1 NII_{it}^{SAS+IFRS} + \beta_2 \Delta \mathrm{NII}_{it}^{SAS+IFRS} + \beta_3 OI_{it}^{SAS+IFRS} + \beta_4 \Delta \mathrm{OI}_{it}^{SAS+IFRS} \\ & + \beta_5 DP_{it}^{SAS+IFRS} + \beta_6 \Delta \mathrm{DP}_{it}^{SAS+IFRS} + \beta_7 TAX_{it}^{SAS+IFRS} + \beta_8 \boldsymbol{\Delta} TAX_{it}^{SAS+IFRS} \\ & + \beta_9 AUD_{it}^{SAS+IFRS} + \beta_{10} D + \beta_{11} DNII_{it}^{SAS+IFRS} + \beta_{12} D \boldsymbol{\Delta} \mathbf{NII}_{it}^{SAS+IFRS} \\ & + \beta_{13} DOI_{it}^{SAS+IFRS} + \beta_{14} D \boldsymbol{\Delta} OI_{it}^{SAS+IFRS} + \beta_{15} DDP_{it}^{SAS+IFRS} + \beta_{16} D \boldsymbol{\Delta} DP_{it}^{SAS+IFRS} \\ & + \beta_{17} DTAX_{it}^{SAS+IFRS} + \beta_{18} D \boldsymbol{\Delta} TAX_{it}^{SAS+IFRS} + \beta_{19} DAUD_{it}^{SAS+IFRS} + \mu_{it} \end{aligned}$$

Model 24

RETit = Return at end of three months after the fiscal year end

SAS= statement of accounting standards under Nigerian accounting reporting

IFRS= International Financial Reporting Standards.

*NII*it = Net interest income for firm i at the period t

*ΔNII*it= Change in net interest income for firm i at the period t

*OI*it = Operating income for firm i at the period t

*ΔOP*it= Change in operating income for firm i at the period t

*DP*it = Depreciation for firm i at the period t

*ΔDP*it= Change in depreciation for firm i at the period t

*TAX*it = Tax expenses for firm i at the period t

*ΔTAX*it= Change in tax expenses for firm i at the period t

AUDit = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise *(for control variable*)

D= Dummy variable for the structural break used as "0" for the pre-IFRS and "1" for the post-IFRS adoption

$\beta_{11}, \beta_{12}, \beta_{13}, \beta_{14}, \beta_{15}, \beta_{16}, \beta_{17}, \beta_{18}$ *and* β_{19} = Dummy variable coefficients DNII, DΔNII, DOI, DΔOI, DDP, DΔDP, DTAX, DΔTAX and DAUD respectively

μit = Random error term or disturbance error

4.8.5 Accruals and Book Value Models

Stock Price: Model 3

The stock price regression adapted and modified from the study is fromOhlson (1995).The model is a modified model using dummay variable as used in Tsalavout, Andre and Evans (2012) and Kargin (2013)

The hypothesis for the book valueand accruals of the price model is hypothesis five (H5)

Model 3A is:

$SP_{it}^{SAS} = \alpha_0 + \beta_1 BV_{it}^{SAS} + \beta_2 ACC_{it}^{SAS} + \beta_3 AUD_{it}^{SAS} \mu_{it}$----------Model 25

$SP_{it}^{IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 ACC_{it}^{IFRS} + \beta_3 AUD_{it}^{IFRS} \mu_{it}$----------Model 26

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$$SP_{it}^{SAS+IFRS} = \alpha_0 + \beta_1 BV_{it}^{SAS+IFRS} + \beta_2 ACC_{it}^{SAS+IFRS} + \beta_3 AUD_{it}^{SAS+IFRS} + \beta_4 D + \beta_5 DBV_{it}^{SAS+IFRS} + \beta_6 DACC_{it}^{SAS+IFRS} + \beta_7 DAUD_{it}^{SAS+IFRS} \mu_{it}$$ ---------- Model 27

SPit = Stock prices per share at end of three months of the fiscal year end

SAS= Statement of Accounting Standard of Nigeria

IFRS= International Financial Reporting Standards

BVit = Book value of equity at the end of fiscal year

*ACC*it = Earningsit - cash flows (CF) for firm i at the period t

AUDit = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise

D= Dummy variable for the structural break used as "0" for the pre-IFRS and "1" for the post-IFRS adoption

β5, β6 & β7= Dummy variable coefficients for DBV, DACC and D AUD respectively

μit = Random error term or disturbance error.

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Stock Return: Model 3

The model is using return variables that allow for lag variables of all independent variables and deflated by the price at the three months after the fiscal year. In order to have clean return regressions the study adapted model fromEaston and Harris (1991) and used by Mostafa (2014) who included Accruals and cash flows in their studies. Therefore, this sudy modeified the model by making additional variable AUD.The model is a modified model using dummay variable as used in Tsalavout, Andre and Evans (2012) and Kargin (2013)

The hypothesis for the earnings and accruals of the return model hypothesis five (H5) Model 3B is:

$$RET_{it}^{SAS} = \alpha_0 + \beta_1 EARN_{it}^{SAS} + \beta_2 \mathbf{\Delta} EARN_{t-1}^{SAS} + \beta_3 ACC_{it}^{SAS} + \beta_4 \Delta ACC_{t-1}^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it}$$

Model 28

$$RET_{it}^{IFRS} = \alpha_0 + \beta_1 EARN_{it}^{IFRS} + \beta_2 \mathbf{\Delta} EARN_{t-1}^{IFRS} + \beta_3 ACC_{it}^{IFRS} + \beta_4 \mathbf{\Delta} ACC_{t-1}^{IFRS} + \beta_5 AUD_{it}^{IFRS} + \mu_{it}$$

Model 29

$$RET_{it}^{SAS+IFRS} = \alpha_0 + \beta_1 EARN_{it}^{SAS\&IFRS} + \beta_2 \mathbf{\Delta} EARN_{it}^{SAS\&IFRS} + \beta_3 ACC_{it}^{SAS\&IFRS} + \beta_4 \mathbf{\Delta} ACC_{it}^{SAS\&IFRS} + \beta_5 AUD_{it}^{SAS\&IFRS} + \beta_6 D + \beta_7 DEARN_{it}^{SAS\&IFRS} + \beta_8 \mathbf{D\Delta} EARN_{it}^{SAS\&IFRS} + \beta_9 DACC_{it}^{SAS\&IFRS} + \beta_{10} D\mathbf{\Delta} ACC_{it}^{SAS\&IFRS} + \beta_{11} DAUD_{it}^{SAS\&IFRS} + \mu_{it}$$

Model 30

RET_{it} = Stock return at end of three month of the fiscal year end

SAS= statement of accounting standards under Nigerian accounting reporting

IFRS= International Financial Reporting Standards.

Eit = earnings for firm I at period t at fiscal year end

ΔEit = Change in earnings for firm i at the period t

AUDit = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise *(for control variable*)

D= Dummy variable for the structural break used as "0" for the pre-IFRS and "1" for the post-IFRS adoption

$\beta_7, \beta_8, \beta_9, \beta_{10}$ & β_{11}

= Dummy variable coefficients for DEARN, DΔEARN, DACC, DΔACC, and DAUD

μit = Random error term or disturbance error

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4.8.6 Book Value, Earnings and Dividends

This Section provided the rationale for comparing the stock price regression model with book value earnings and dividends as in the original model of Ohlson (1995) and used by many researchers (Al-Hares et al., 2012; Richard & Zarowin, 2013). The model is a modified model using dummay variable as used in Tsalavout, Andre and Evans (2012) and Kargin (2013)

Stock Price: Model 4

The hypothesis for the book value, earnings and dividend of the price model (4) Hypothesis six (H6) Model 4A modified Ohlson Model by adding AUD as additional variable.

$$SP_{it}^{SAS} = \alpha_0 + \beta_1 BV_{it}^{SAS} + \beta_2 EPS_{it}^{SAS} \beta_3 DIV_{it}^{SAS} + \beta_4 AUD_{it}^{SAS} + \mu_{it} \text{---------Model 31}$$

$$SP_{it}^{IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 EPS_{it}^{IFRS} + \beta_3 DIV_{it}^{IFRS} + \beta_4 AUD_{it}^{IFRS} + \mu_{it} \text{--Model 32}$$

$$SP_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 BV_{it}^{SAS\&IFRS} + \beta_2 EPS_{it}^{SAS\&IFRS} + \beta_3 DIV_{it}^{SAS\&IFRS} + \beta_4 AUD_{it}^{SAS\&IFRS} + \beta_5 D + \beta_6 DBV_{it}^{SAS\&IFRS} + \beta_7 DEPS_{it}^{SAS\&IFRS} + \beta_8 DDIV_{it}^{SAS\&IFRS} + \beta_9 DAUD_{it}^{SAS\&IFRS} \mu_{it} \quad \text{Model 33}$$

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SP_{it} = Stock prices per share at end of three months of the fiscal year end

SAS= Statement of Accounting Standard of Nigeria

IFRS= International Financial Reporting Standards

BV_{it} = Book value of equity at the end of fiscal year

EPS_{it} = Net income before extraordinary items for firm i period t.

DIV_{it} = Annual dividend for firm i at the period t

AUD_{it} = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise *(for control variable*)

D= Dummy variable for the structural break used as "0" for the pre-IFRS and "1" for the post-IFRS adoption

$\beta_6, \beta_7, \beta_8$ & β_9= Dummy variable coefficients for DBV, DEPS, DDIV and DAUD respectively

μ_{it} = Random error term or disturbance error.

Stock Return: Model 4

The hypothesis for the earnings and dividend of the return model (4) Hypothesis six (H6) Model 4B themodified model adopted from the study of Schaberl(2016) and Hamberg and Beisland(2014) by including dividend and change in dividend and goodwil in return model.

The model use in the study:

$$RET_{it}^{SAS} = \alpha_0 + \beta_1 EARN_{it}^{SAS} + \beta_2 \mathbf{\Delta} EARN_t^{SAS} + \beta_3 DIV_{it}^{SAS} + \beta_4 \mathbf{\Delta DIV}_t^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it}$$

Model 34

$$RET_{it}^{IFRS} = \alpha_0 + \beta_1 EARN_{it}^{IFRS} + \beta_2 \mathbf{\Delta} EARN_{it}^{IFRS} + \beta_3 DIV_{it}^{IFRS} + \beta_4 \mathbf{\Delta} DIV_{it}^{IFRS} + \beta_5 AUD_{it}^{IFRS} \mu_{it}$$

Model 35

$$RET_{it}^{SAS+IFRS} = \alpha_0 + \beta_1 EARN_{it}^{SAS\&IFRS} + \beta_2 \mathbf{\Delta} EARN_{it}^{SAS\&IFRS} + \beta_3 DIV_{it}^{SAS\&IFRS} + \beta_4 \mathbf{\Delta} DIV_t^{SAS\&FRS} + \beta_5 AUD_{it}^{SAS\&IFRS} + \beta_6 D + \beta_7 DEARN_{it}^{SAS\&IFRS} + \beta_8 \mathrm{D}\Delta EARN_{it}^{SAS\&IFRS} + \beta_9 DDIV_{it}^{SAS\&IFRS} + \beta_{10} \mathrm{D}\Delta DIV_{it}^{SAS\&IFRS} + \beta_{11} DAUD_{it}^{SAS\&IFRS} \mu_{it}$$

Model 36

RET_{it} = Stock return at end of three months of the fiscal year end

SAS= Statement of Accounting Standard of Nigeria

IFRS= International Financial Reporting Standards

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*EARN*it = Net income before extraordinary items for firm i period

Δ*EARN*it = Change net income before extraordinary items for firm i at the period t

*DIV*it = Annual dividend for firm i at the period t

ΔDIVit= Change in annual dividend for firm i at the period t

AUDit = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise *(for control variable*)

D= Dummy variable for the structural break used as "0" for the pre-IFRS and "1" for the post-IFRS adoption

β7, β8, β9, β10 &β11, = Dummy variable coefficients for DEARN, DΔEARN, DDIV, DΔDIV and DAUD respectively

μit = Random error term or disturbance error.

4.9 Expected Sign of Variables

This study determined the value relevance of accounting information for the pre-and post-adoption periods of IFRS adoption among Nigerian firms. Therefore, the value relevance of accounting information has been measured based explanatory power coefficient after the IFRS adoption. If the coefficient is reported under IFRS to have greater explanatory power and is statistically significant, then there is an increase of value relevance of accounting information, while a decline in the explanatory power of coefficient signifies a decrease in value relevance of accounting information after the IFRS adoption. The statistical significance is measured based on the Chow test (1960) statistic based on the prior literature.

Table 4.4 provides a summary of expected signs. The results from the expected signs of assets, current assets, fixed assets are expected to be positive. The signs for liabilities, current liabilities and non-current liabilities are expected to be negative. The signs for net income, net interested income, and operating income are expected to be positive and depreciation and tax expenses to be negative. The signs for book value, accrual earnings and dividend are expected to be positive. Big 4 audit firms are expected to have a positive relationship with stock price and return regression models in the entire hypotheses. The expected signs for the dummy variable are expected to have same signs with non-dummy variables.

Table 4.4

Summary of the Expected Signs

Variable	Type of Variable	Code	Sign(s)
Stock Price	Dependent	SP	
Stock Return	Dependent	RET	
Assets	Independent	TA	+
Liabilities	Independent	LT	-
Current Assets	Independent	CA	+
Fixed Assets	Independent	FA	+
Current Liabilities	Independent	CL	-
Non-Current Liabilities	Independent	TA	+
Net income	Independent	NI	+
Operating Expenses	Independent	OE	-
Net Interest Income	Independent	NII	+
Operating Income	Independent	OI	+
Depreciations	Independent	DEP	-
Tax	Independent	TAX	-
Book Value	Independent	BV	+
Accruals	Independent	ACC	+
Earnings	Independent	EP	+
Dividends	Independent	DIV	+
Audit Big4	Control Variable	AUD	+

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Summary of the expected signs of dummy variables

Variable	Type of Variable	Code	Sign(s)
Dummy variable D	Dummy	D	+
Dummy Assets	Independent	DTA	+
Dummy Liabilities	Independent	DLT	-
Dummy Current Assets	Independent	DCA	+
Dummy Fixed Assets	Independent	DFA	+
Dummy Current Liabilities	Independent	DCL	-
Dummy Non-Current Liabilities	Independent	DTA	+
Dummy Net income	Independent	DNI	+
Dummy Operating Expenses	Independent	DOE	-
Dummy Net Interest Income	Independent	DNII	+
Dummy Operating Income	Independent	DOI	+
Dummy Depreciations	Independent	DDEP	-
Dummy Tax	Independent	DTAX	-
Dummy Book Value	Independent	DBV	+
Dummy Accruals	Independent	DACC	+
Dummy Earnings	Independent	DEP	+
Dummy Dividends	Independent	DDIV	+
Dummy Audit Big4	Control Variable	AUD	+

4.10 Value relevance of Audit Big 4

To determine the effect of audit Big 4 on the value relevance of accounting information for both stock price and return modes, two study approaches were employed. First, consistent with Brown, Lo, and Lys, (1999), Holthausen and Watts (2001), and Mishari (2016) using R^2 as coefficient of determination for both stock price and return models. However, the study first determined the effect of AUD big 4 in the pooled data, then pre-and post-adoption of IFRS. The differences between the R^2 value of pre-and post-adoption of IFRS were analysed through regressing R^2 values using AUD as dummy variable to represent audit quality. This is consistent with Mishari (2016) that, the higher the R^2 the greater the value relevance of accounting information. The dummy variable captures the influence of audit quality on the value relevance studies. The dummy variable is equal "1" for Big 4 audit and "0" otherwise.

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Secondly, using Lee and Lee (2013) by observing whether the statistical increase on R^2 value of Big 4 is greater than non-Big 4 audit. Therefore, the data were analysed for all models using AUD big 4 to find the effect of AUD big 4 on the value relevance. Subsequently, the models were also analysed without the AUD big 4 to find whether there is change in value relevance from the coefficient of determination R^2. All data were checked for statistical significance differences using Chow test (1960) for both variables with AUD big 4 and non-Big 4 AUD.In Nigeria, the number of AUD big four before the IFRS adoption were 45 but after the IFRS adoption has increased to 87. This is because most of the companies want comply with new accounting regulations (IFRS).

4.11 Robustness of Regressions Result Test

The study adopted panel data using STATA 12, as econometric interactive test software for data analysis. The software performs regression tests using Ordinary Least Square (OLS), that has been used in the majority of value relevance studies including (Barth et al., 2006, 2014; Lang, Smith Raedy, & Wilson, 2006), and the originators of the stock price and return models (Ohlson, 1995; Easton and Harris, 1991). The OLS estimation of linear regression has been an acceptable method for data analysis used by economists (Chow test (1960).

The first robust test conducted from the analysis was dividing the model from the full samples of firms into two categories: 1) non-financial and 2) financial firms as provided in Dhaliwal et al. (1999). The separation is to confirm whether the results are driven by non-financial firms or financial firms. The non-financial and financial firms coefficients

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and their relationship with each other may likely differ because of the different composition of assets and income disclosures (Barth & Clinch, 1998; Horton & Serafeim, 2010). These differences in some of the disclosures between financial and non-financial firms have an differential effect on the value relevance of accounting information in the domestic standards and IFRS. Barth et al. (2014) stated that fair value measurements have much greater effect under IFRS for financial institutions than for non-financial firms.

Chalmers et al. (2011) conducted a robustness test for earnings and book value so see if they were more value relevant after IFRS adoption by dividing the samples into subsamples for a period from 1990 to 2008 using the same observations. The findings from the robustness confirmed that the results were significantly different across subsamples, but were consistent with the full sample. Several other studies conducted robustness tests to confirm which model was more efficient and reliable for generalisation. For instance, Francis et al. (2005) used different debt proxies and costs of equity to test the robustness of their results and reported no differences, and Beisland (2011) investigated the effect of a number of variables on IFRS adoption and reported similar results.

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4.12 Variables and Measurements

All variables to be used for the study was generated from the data streams and annual reports of Nigerian firms for the period of pre- and post-adoption periods of IFRS. These variables were measured based on measurements adopted from other studies on value relevance. Table 4.5 below is a summary of variables and their measurements.

Table 4.5
Variables and Measurement

Classification	Variable	Definition	Measurement
Market Value	SP	Stock prices	Price at three months after fiscal year
	RET	Stock Returns	Returns at three months after fiscal year
Value relevance of assets and liabilities	TA	Total assets	Current asset + Non-current assets
	ΔTA	Change in total assets	Total assets-assets$_{it}$
	TL	Total liabilities	Current liabilities+ non-current liabilities
	ΔTL	Change in liabilities	Liabilities-liabilities$_{it}$
	CA	Current assets	Cash and cash equivalent+ Inventories+ pre-payments + Deferred tax assets +Other assets+ assets pledge as collateral +Insurance receivable
	ΔCA	Change in current assets	Current assets-current assets$_{it}$
	FA	Fixed assets	Property, Plant and Equipment
	ΔFA	Change in fixed assets	Fixed assets-fixed assets$_{it}$
	CL	Current liabilities	Creditors +Taxation + loans +Dividend payable + other creditors
	ΔCL	Change in liabilities	Current liabilities – current liabilites$_{it}$
	NCL	Non-current liabilities	Bank term loan+ deferred tax, inter-company loans + provision of long term loans
	ΔNCL	Change in non-current liabilities	Non-current liabilities -non-current liabilities$_{it}$
Value Relevance of Income and operating expenses	NI	Net income	Net income before extraordinary items
	ΔOE	Change in operating expenses	Operating expenses-operating expense$_{it}$
Value Relevance of Income and operating expenses	OI	Operating income	Dividend + foreign exchange income + loan on disposal + other income
	ΔOI	Operating income	Operating income-operating income$_{it}$
	NII	Net interest income	Interest and similar income–interest expenses
	ΔNII	Change in net interest income	Net interest income-net interest income$_{it}$
Accounting Information	BV	Book value of equity	Book value of common equity
	ΔBV	Book value of equity	Book value-book value$_{it}$
	EPS	Earnings per share	Net income before extraordinary items
	EARN	Earnings	Net income before extraordinary items
	ΔEARN	Earnings	Earnings-earnings$_{it}$
	Div	Dividend per share	Annual Dividends paid
	ΔDIV	Change in dividend	Dividend-dividend$_{it}$
Control Variable	AUD	Audit Big 4	Firms with Big 4 "1" and "0" if otherwise

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4.13 Conclusion

This chapter discusses issues with respect to the methodology used in the study. The chapter comprises the research process, a sample of the study models' designs, the research framework and regression models that capture both dependent and independent variables to be used for the study and lastly the control variables for the models. The next chapter provides the findings of the hypotheses.

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CHAPTER FIVE

RESULTS AND DISCUSSIONS

5.1 Introduction

This chapter of the thesis presented the results of the analysis in determining whether accounting information is more value relevant under IFRS than under NGAAP among the listed Nigerian firms between 2009 and 2011 (pre-adoption), and 2012 and 2013 (post-adoption). Section 5.2 provided the data description of the study. Followed by Section 5.3 descriptive statistics for stock price and return models. Next, Section 5.4 reported the Pearson's correlation matrix for stock price and the stock return models. Section 5.5 presented regression analysis for stock price and the stock return models. Section 5.6 provided the summary of the regression results. Lastly, Section 5.7 the conclusions for the chapter.

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5.2 Data Description

This research used panel data to test the hypotheses formulated in the study. Although, majority of studies have used book value and earnings in studying value relevance for Nigeria, this research employs a different approach by using assets and liabilities and their components, net income and operating expenses and selected net income and operating expenses, book value and accruals, and book value, earnings and dividends. The initial samples for the study comprised 126 firms in each year from 2009 to 2013 for the firms listed in the NSE for all the objectives.

Data for the study were collected from three sources: 1) Thompson Reuters DataStream for non-financial institutions(total assets and total liabilities, net income, operating expenses, depreciation and tax expenses, book value and dividend), and 2) Bank Scope DataStream for financial institutions(total assets and total liabilities, operating expenses, depreciation and tax expenses, book value and dividend), and 3), net income, current assets, current liabilities and non-current liabilities, net interest income, operating expenses, and audit "big 4" are collected from the annual reports.

The summary of domestic firm's descriptive statistics in the panel data was for the period from 2009 to 2011 (NGAAP) and from 2012 to 2013 (IFRS) divided into single panels: 1) stock price presented as (SP) in Panel A and, 2) stock return presented as (RET) in Panel B. This division of pre-and post-adoption is consistent with Elbakry et al. (2017), Fuensanta et al.(2016),and Graham et al.(2000). All variables under stock price were deflated by the total number of outstanding shares outstanding and stock return was deflated by the market capitalisation at the end of fiscal year end. Several studies recognised the use of scale effect for analysis using stock price and return. For instance Barth, Beaver, and Landsman (1992) used total number of shares outstanding, and Easton and Sommers (2000) adopting market capitalisation at the end of fiscal year. Nevertheless, their use of scale effect was mainly to reduce heteroscedasticity. The mean values in the study are reported in Billions of Nigerian Naira(NGN). The change in foreign currency at the period of data collection is converted from Nigerian Naira to USD. The exchange rate at the period of study is 1UDS to 156NGN)

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5.3 Descriptive Statistics

As noted in Chapter 4, this research used secondary data to measure the relationship between accounting numbers and stock prices and return models. The data for the descriptive statistics focus on the disclosures reported in financial statements from 2009 to 2013 of the sampled firms.

All variables for the both stock price and stock return modes were described in tables and panels for the pre-and post-adoption periods of IFRS. The tables for both stock price and return are divided into Panel A and Panel B respectively.The data descriptions for the stock price model were for the assets and liabilities and selected assets and liabilities, net income statements and selected net income statement, accruals and book value. Lastly, book value, earningsand dividend disclosures were included.

5.3.1 Descriptive Statistics for Assets and Liabilities

Table 5.1 described the descriptive statistics for assets and liabilities and selected assets and liabilities for the study. Panel A and B in Table 5.1 presented the variables for the stock price and stock return regressions, respectively. Panel A is for the stock price regression showing the number of firm-year observations of 378 for the pre-adoption (2009-2011, three years 252 firm-year observations (2012-2013, two years) at the post-adoption of IFRS. The number of samples before the adoption of IFRS was greater because of the periods used in the study. The number of periods is consistent with Kadri et al. (2009) who used 2002-2005 for pre-adoption and 2006-2007 as post IFRS adoption among Malaysian firms. The means distribution of data is computed in Billions of Nigerian Naira (NGN) for all firms. The period used one USD to NGN156 for conversion.

The pre-adoption period share price (SP) mean was NGN17.7114(USD0.1135) per share lower than post-adoption period of 21.3700 (USD0.1370) per share. The minimum SP under pre-adoption was NGN0.44(USD0.000381) that is attributed to Sovereign Trust Insurance had a maximum of NGN898(USD5.7564) under Nestle Nigeria limited. The post-adoption period provided an increase in the minimum share of NGN0.4800 (USD0.0031) found in Transcop and the maximum of NGN1100 (USD7.0513) found in Nestle Nigeria. The lower share price in the pre-adoption period could be connected to the decline in share price immediately after the financial crisis of 2008-2009. The stock market at the end of the 2009 declined by 70% (Alexis, 2013).Similarly, Okereke-onyiuke (2010), reported the exchange ratio turnover declined in 2009 to 13.26% from the 21.86% in 2008, attributing to the stock prices decline.

The average mean of variable TA was NGN21.1659 (USD 0.1357) in the pre-adoption period, which was lower than TA in post-adoption period NGN26.2027 (USD0.1680). The mean of TL was NGN14.9879 (USD0.0961) in the pre-adoption period and NGN25.1907 (USD0.1615) in the post-adoption period. The increased in liabilities could be from the failure of the capital market in the period of 2008 to 2009 that affect the post adoption of IFRS. The lower mean under post-adoption could be attributed to the change in financial reporting and the effect of revaluation of fixed assets based on the accounting policy as in IAS 16 and IAS 36 greater of value and fair value less disposal of cash.

Also, the mean of CA was NGN12.1997 (USD0.0782) in the pre-adoption period and NGN21.5125 (USD0.1379) in the post-adoption period. The FA mean was NGN8.9690 (USD0.0575) in the pre-adoption period and was greater than the NGN4.6903 (USD0.0301) mean in the post-adoption period.

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Table 5.1

Descriptive Statistics for Variables of Assets and Liabilities and Selected Assets and liabilities

Panel A: Price Model

	PRE-ADOPTION 2009-2011							POST-ADOPTION 2012-2013						T-test	
Variable	Obs	Mean	Std.Dev	Min	Max	Skew	Kurt	Obs	Mean	Std.Dev	Min	Max	Skew	Kurt	t-value	p-value
SP	378	17.7114	61.7596	0.4400	898.0000	0.62	2.81	252	21.3700	77.5800	0.4800	1100.0000	0.34	2.45	0.0823	0.5328
TA	378	21.1659	42.8743	0.7518	356.6106	0.77	3.68	252	26.2027	47.5186	1.0044	331.5361	0.78	3.27	1.5065	0.0662
TL	378	14.9879	73.4875	0.0188	996.7195	0.77	3.68	252	25.1907	191.8297	0.0230	2591.5100	0.78	3.27	0.9392	0.1740
CA	378	12.1979	45.6795	0.0038	612.5048	-0.09	2.98	252	21.5125	128.7293	0.0107	1750.3570	-0.96	2.89	1.2500	0.1059
FA	378	8.9690	41.5732	0.0001	493.3043	0.6	3.1	252	4.6903	83.2792	19089	1081.2480	0.53	2.56	0.6984	0.2426
CL	378	9.4541	95.8543	0.0005	1306.5530	0.45	2.54	252	23.5646	243.3508	0.0006	2739.1620	0.27	2.71	0.9148	0.1804
NCL	378	2.7438	14.7719	0.0023	201.4821	0.76	3.27	252	1.6261	42.3286	0.0035	575.7761	0.69	3.03	1.1479	0.1258

Panel B: Return Model

	PRE-ADOPTION 2009-2011							POST-ADOPTION 2012-2013						T-test	
Variable	Obs	Mean	Std. Dev.	Min	Max	Skew	Kurt	Obs	Mean	Std. Dev.	Min	Max	Skew	Kurt	t-value	P-value
RET	378	0.1345	0.9491	-0.7400	9.7400	0.19	2.59	252	0.4285	1.0077	-0.8600	6.6700	0.90	0.91	-3.6775	0.9999
TA	378	7.9313	10.0007	-4.9259	42.0184	0.57	2.68	252	8.9035	9.7574	-4.4038	40.8010	0.43	2.61	-1.2145	0.8875
ΔTA	378	1.1943	11.2116	0.0000	146.3449	-1.10	0.98	252	0.8383	8.3995	0.0000	103.1478	-0.32	0.15	0.4513	0.326
TL	378	5.4531	17.3877	0.0042	282.0846	-1.10	0.98	252	5.4884	15.3139	0.0042	194.5492	-0.32	-0.01	-0.0269	0.5107
ΔTL	378	1.5725	11.7898	0.0008	208.3758	0.76	3.24	252	1.2415	8.3930	0.0010	124.5037	0.70	3.12	0.4073	0.342
CA	378	5.4445	69.9799	0.0000	914.6553	0.27	2.51	252	6.2391	52.4971	0.0000	644.6738	0.25	2.41	0.4513	0.3259
ΔCA	378	0.6903	1.4527	0.0001	12.3625	-0.22	2.05	252	0.8569	1.6018	0.0018	11.4933	0.05	2.78	-1.2991	0.9027
FA	378	2.1048	38.5933	0.0006	748.1510	0.20	2.82	252	2.5104	43.0932	0.0001	636.4315	0.24	2.63	1.0037	0.1581
ΔFA	378	0.8385	7.3607	0.0000	116.8260	0.22	2.69	252	0.1066	0.7947	0.0000	10.4527	0.14	2.50	-1.3457	0.9102
CL	378	1.4203	10.3855	0.0000	183.9671	0.02	2.53	252	4.7837	53.4864	0.0003	847.1750	0.54	2.68	-0.9897	0.8384
ΔCL	378	1.0654	1.8594	-9.1380	3.3374	-0.34	3.70	252	0.8310	1.8512	-5.6533	3.2645	-0.02	2.43	-1.3534	0.9117
NCL	378	0.6565	1.4500	0.0150	12.2294	0.50	2.38	252	0.8184	1.6108	0.0201	11.3696	0.38	2.11	-1.2877	0.9008
ΔNCL	378	0.6932	4.1841	0.0000	54.4397	0.54	3.62	252	1.3586	10.2186	0.0000	114.1318	0.77	3.66	-0.9864	0.8376

Notes: Panel A: All variables in the table are based on the annual report published by firms listed in the Nigerian stock market. SP = share prices three months after the fiscal year for firm i. TA = total assets for firm i at the end of year t, TL= total liabilities for firm i at the end of year t, CA = current assets for firm i at the end of year t, FA = fixed assets for firm i at the end of year t, CL = current liabilities for firm i at the end of year t, NCL=non-current liabilities for firm i at the end of year t. All variables are deflated by the total number of outstanding shares except SP. Panel B: All variables in the table are based on the annual report published by firms listed in the stock market. Panel B: RET = stock return (inclusive of dividends) three months ended for firm i after the fiscal year, ΔTA = change in total assets for firm i at the end of year t, , ΔTL, = change in total liabilities for firm i at the end of year t , , ΔCA = change in current assets for firm i at the end of year t , ΔFA= change in fixed assets for firm i at the end of year t, , ΔCL = change in current liabilities for firm i at the end of year t, ΔNCL = change in non-current liabilities for firm i at the end of year t. All variables under stock return are scaled by the market capitalisation deflates all variables at the end of the fiscal year. All variables provided no statistical significance. Only CA under the price model provided mean significant differences from the t-tests for the mean differences. Converted to NGN156 = USD1 and in billions of Naira.

The lower mean under post-adoption could be attributed to the change in financial reporting. Firms reporting under IFRS, have an option to either use revaluation method or cost method in measuring FA. This option is reported in IAS16 for plant property and equipment, IAS 38 for intangible assets and investment property under IAS 40. Several studies support fair value that it provides timelier information and more real representation of financial statement (Barth and Clinch, 1998; Hung and Subramanyam, 2007). In contrast, several studies question the reliability of financial reporting for fair value as in the end it is firm's independent estimation which can be used to cover parts of financial reporting (Christensen & Nikolaev, 2009; Lee & Park, 2013; Nelson, 1996).

Furthermore, the lower FA could be attributed to the new accounting reporting as fixed assets are derecognized once disposed or future economic benefits are not expected from its further use (Amiraslani, Iatridis, & Pope, 2013). Liu, Yao and Yao, (2012) reported that quality of accounting for fixed assets weakens to a greater point when descretion for fair value of firms estimates are used. Also, several countries like Spain and US GAAP allow only historical cost in assets valuation.

The CL mean in the pre-adoption period was NGN9.4541 (USD0.0606) and NGN23.5646 (USD0.1511) in the post-adoption period under IFRS. The variable NCL had a mean of NGN2.7438 (USD0.0176) during the pre-adoption period and NGN1.6262 (USD0.0104) during the post-adoption period under IFRS. This could be attributed to firms in the pre-adoption period having higher debts that were attributed to firm's cash used by financial firms to pay for shares to customers to improve their share prices in the

capital market as reported by the World Bank (2011). All the means in the pre-adoption and post-adoption periods were lower than the standard deviations except for FA and NCL.

Panel B of Table 5.1 for the stock return model reported the number of observation of 378 firms for pre-adoption period (2009-2011 three years) and 252 observations based on post-adoption period (2012-2013 two years). The variable RET had a mean of NGN0.1345 (USD0.0009) in the pre-adoption period, which was lower than the mean of NGN0.4285 (USD0.0027) in the post-adoption period. The minimum and maximum RET in period pre-adoption were NGN-0.7400 (USD-0.0047) and NGN9.7400 (USD0.0624) respectively, and in the post-adoption period were NGN-0.8600 (USD-0.0055) and NGN6.6700 (USD0.0428) respectively. This could be explained from the report of NSE in 2013, that market capitalisation had improved from 2011 to 2012.

The means for TA and ΔTA were NGN7.9313 (USD0.0508) and NGN1.1943 (USD0.0077) in the pre-adoption period respectively, while in post-adoption period the means were NGN8.9035 (USD0.0571) and NGN0.8383 (USD0.0054) for TA and ΔTA respectively. The TL and ΔTL means were NGN5.4531 (USD0.0350) and NGN1.5725 (USD0.0101) in the pre-adoption period respectively while in the post-adoption period the means for TL and ΔTL were NGN5.4884 (USD0.0352) and NGN1.2415 (USD0.0080) in the post-adoption period respectively. The means for CA and ΔCA were NGN5.4445 (USD0.0477) and NGN0.6903 (USD0.0044) in the pre-adoption period respectively that were lower than in post-adoption period in which CA and ΔCA had means NGN6.2391 (USD0.0336) and NGN0.8385 (USD0.0055) respectively. The changes in

ΔTA and ΔTL with lower means under IFRS could also be from the change in accounting regime and the use of fair value measurements.

In the pre-adoption period, the means for FA and ΔFA were NGN2.1048 (USD0.0135) and NGN0.8345 (USD0.0054) respectively and in the post-adoption period were NGN4.5104 (USD 0.0289) and NGN0.1066 (USD 0.0007) for FA and ΔFA respectively. The means for CL and ΔCL in the pre-adoption period were NGN1.4203 (USD 0.0091) and NGN1.0654 (USD 0.0068) respectively, while in the post-adoption period the means for CL and ΔCL were NGN4.7837 (USD 0.0307) and NGN0.8310 (USD 0.0053) respectively. The means for NCL and ΔNCL in the pre-adoption period were NGN0.6565 (USD 0.0042) and NGN0.6932 (USD 0.0044) respectively, and, in the post-adoption period, the means for NCL and ΔNCL were NGN0.8184 (USD 0.0052) and NGN1.3586 (USD 0.0087) respectively. The lower mean for CA and ΔCL under IFRS is also attributable to the change in financial regulations and the use of fair value measurements.

The summary of the results from the two panels provided evidence of higher means for SP, RET, assets, and liabilities, and selected assets and liabilities under post-adoption period, excluding the FA and NCL under the price model. All variables under the stock price model were from the same measures of per share. However, they were regressed and implemented differently as aggregated and disaggregated. The descriptive statistics results showed that share prices and returns had improved during the post-adoption period.

Although the return model presented greater and lower means, the results of statistical tests had no statistically differences between the two periods, using the Ranksum test[2],

[2] Ranksum tests the hypothesis of two independent groups means.

popularly called Mann-Whitney two sample statistics[3] (t-test) (Mann & Whitney, 1947; Wilcoxon, 1946) except for assets (TA). However, this increase was not statistically significant except for assets from the t-test conducted. Furthermore, the results of t-tests for statistical significance between the variables showed that only TA provided a significant difference at P<10% level under stock price. The result of skewness and kurtosis was within the range of -0.96 to 0.78 and 1.96 to 3.27 respectively. The skewness and kurtosis are within acceptable limits and would not affect the results of the regressions. Moreover, the means of all variables under the return model are lower than under the price models. The reason for the lower mean under stock return is because of the deflation by the market capitalisation, consistent with Francis and Schipper (1999) and Mechelli and Cimini (2013) that a return model provides lower value than the stock price model.

5.3.2 Descriptive Statistics for Net Income and Operating Expenses

Table 5.2 showed the descriptive statistics for net income and operating expenses and selected income and operating expenses for the study. The mean of NI was NGN4.7773 (USD0.0306) in the pre-adoption period, which was lower than the mean of NI in the post-adoption period NGN7.0597 (USD0.0453). The mean of OE was also NGN7.4693 (USD0.04790) in the pre-adoption period, which was lower than mean of OE NGN8.4720 (USD0.04525) in the post-adoption period.

The NII mean of NGN4.6643 (USD0.0299) in the pre-adoption period was lower than NII mean of NGN5.5859 (USD0.0358) in the post-adoption period. The OI mean was

[3] Stata command: Ranksum variable, by(group). Group means years of adoption.

NGN7.5823 (USD0.00486) in the pre-adoption period was lower than mean of NGN9.9458 (USD0.0638) in the post- adoption period. The mean of DP in the pre-adoption mean period NGN2.2849 (USD0.0186), which was lower than the mean of NGN3.3116 (USD0.0.0255) for DP in the post-adoption period. TAX had a mean of NGN2.8481 (USD0.05644) during a pre-adoption period, which lower than the mean of NGN2.9830 (USD0.00547) TAX during the post-adoption period. All the means in pre-adoption and post-adoption periods were lower than their standard deviations.

Table 5.2 Panel B showed that the average means for NI and ΔNI were NGN1.1427 (USD0.0073) and NGN2.6743 (USD0.017143) respectively in the pre-adoption period, while in the post-adoption period the means were NGN1.1552(USD 0.0074) and NGN2.9998(USD0.0192) for NI and ΔNI respectively. The OE and ΔOE means were NGN3.5452(USD0.0227) and NGN0.0528(USD0.0003) in the pre-adoption period respectively while in the post-adoption period the means for OE and ΔOE were NGN3.3965 (USD0.0218) and NGN0.9473 (USD0.0061) in the post-adoption period respectively.

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The mean for OE was greater in the pre-adoption of IFRS period, but ΔOE was greater in the post-adoption period of IFRS. The reasons could be that during the pre-adoption period, firms in Nigeria had issues with the bad debts and non-performing loans.

Table 5.2

Descriptive Statistics for Net Income and Operating Expense and Selected Net Income and Operating Expenses

Panel A: Price Model

	PRE-ADOPTION 2009-2011							POST-ADOPTION 2012-2013						T-test	
Var	Obs	Mean	Std. Dev.	Min	Max	Ske	Kurt	Obs	Mean	Std. Dev.	Min	Max	Ske	Kur	t-value	p-value
SP	378	17.7114	61.7596	0.4400	898.0000	0.53	2.69	252	21.3724	77.5763	0.4800	1100.0000	0.47	2.58	0.0823	0.5328
NI	378	4.7773	19.4296	0.0092	65.1202	0.05	2.38	252	7.0597	25.3091	0.0003	64.6424	-0.25	1.65	0.3091	0.3787
OE	378	7.4693	17.9999	0.0000	79.3292	0.17	2.49	252	8.4720	45.4062	0.0000	1058.9690	0.31	2.62	-1.1569	0.8758
NII	378	4.6643	6.1432	0.0031	21.7067	0.05	2.38	252	5.5859	7.1030	0.0001	21.5475	-0.25	2.65	-0.2205	0.5872
OI	378	7.5823	51.1130	0.0000	911.1389	0.59	3.69	252	9.9458	54.7863	0.0000	913.0540	0.69	2.50	-0.0758	0.5302
DP	378	2.2849	4.4237	0.0013	37.0875	-0.04	3.26	252	3.3111	12.8113	0.0004	36.8154	-0.18	2.98	-0.069	0.5275
TAX	378	2.8481	71.3738	0.0000	873.4726	0.59	2.88	252	2.9830	32.2212	0.0000	489.8593	0.58	2.61	1.0608	0.1446

Panel B: Return Model

	PRE-ADOPTION 2009-2011							POST-ADOPTION 2012-2013						T-test	
Var	Obs	Mean	Std. Dev.	Min	Max	Ske	Kurt	Obs	Mean	Std. Dev.	Min	Max	Ske	Kurt	t-value	P-value
RET	378	0.1345	0.9491	-0.7400	9.7400	-0.16	2.47	252	0.4285	1.0077	-0.8600	6.6700	-0.48	2.89	-3.6775	0.9999
NI	378	1.1427	2.2952	0.0002	18.4077	-0.26	3.66	252	1.1552	2.2854	0.0012	18.5438	-0.32	3.54	0.2633	0.6038
ΔNI	378	2.6743	13.5342	0.0000	173.7609	-0.20	2.86	252	2.9998	16.2133	0.0000	172.7556	0.06	3.02	-0.0673	0.5268
OE	378	3.5452	28.9371	0.0001	500.9119	1.37	2.79	252	3.3965	25.0214	0.0011	367.3814	1.55	3.27	0.0686	0.4727
ΔOE	378	0.0529	0.9099	0.0000	17.6502	0.10	2.75	252	0.9473	4.7447	0.0000	234.0539	0.26	2.88	-0.9617	0.8314
NII	378	1.6263	9.0738	0.0000	106.2837	0.46	3.45	252	1.2731	6.9272	0.0000	59.2551	0.33	3.61	0.5528	0.2903
ΔNII	378	0.9975	20.2247	-10.1182	392.9720	0.11	3.03	252	0.0021	0.2584	-1.2747	2.3070	0.22	3.40	-0.9608	0.8314
OI	378	0.3896	9.2660	0.0000	174.5824	-0.28	3.49	252	0.9516	0.5061	0.0000	97.5188	-0.25	3.45	0.0604	0.4759
ΔOI	378	1.3626	17.6068	-331.6710	14.5305	-0.24	3.06	252	0.3205	0.3549	-2.9860	34.3887	-0.49	3.68	-1.8342	0.9663
DP	378	0.8811	4.7545	0.0000	61.8506	-0.35	3.98	252	1.0148	0.7231	0.0000	61.4928	-0.30	3.66	0.3068	0.6204
ΔDP	378	1.4337	14.0711	-161.9580	61.3641	-0.12	2.81	252	0.6983	0.8602	-33.2723	67.5487	-0.47	3.61	-2.6242	0.9955
TAX	378	1.8021	28.2836	0.0000	545.5281	0.03	2.83	252	1.4368	5.1432	0.0000	227.8821	0.14	2.82	0.2100	0.4169
ΔTAX	378	0.3125	9.1762	-175.6520	24.9360	-0.02	2.69	252	0.8971	5.9603	-16.2176	252.7099	-0.01	2.55	1.0890	0.1384

Notes: Panel A, SP = share prices three months after the fiscal year for firm i at the end of year t. NI = the net income for firm i at the end of year t, OE = operating expenses for firm i at the end of year t, NII=net interest income for firm i at the end of year t, OI = operating income for firm i at the end of year t, DP = depreciation for firm i at the end of year t, TAX = tax expenses for firm i at the end of year t. All variables are deflated by the total number of outstanding shares except SP.

Panel B: RET = stock return three months (inclusive of dividends) three months ended for firm i after the fiscal year, ΔNI = is the change in net income for firm i at the end of year t, ΔOE = change in operating expenses for firm i at the end of year t, , ΔNII= change in net interest income for firm i at the end of year t, ΔOI = change in operating income for firm i at the end of year t, ΔDP = change in depreciation for firm i at the end of year t, ΔTAX = change in tax expenses for firm i at the end of year t, All variables are deflated by the market capitalisation at the end of the fiscal year.

The means for NII and ΔNII in the pre-adoption period of IFRS were NGN1.6263 (USD0.0104) and NGN0.9975 (USD0.0064) respectively while in the post-adoption period NII and ΔNII had means of NGN1.2731 (USD0.0882) and NGN0.0021 (USD0.0001) respectively, which was lower than in the pre-adoption of IFRS. This could be explained from the bail-out period of the CBN, and payments from loans given out during the period from 2010 to 2011.

In the pre-adoption period, the means for OI and ΔOI were NGN0.3896 (USD0.0063) and NGN1.3626 (USD0.0087) respectively, and, in the post-adoption period, they were NGN0.9516 (USD0.0061 and NGN0.3205 (USD 0.0021) for OI and ΔOI respectively, which was lower than in the pre-adoption period of IFRS. The means for DP and ΔDP in the pre-adoption period were NGN0.8811 (USD 0.0057) and NGN1.4337 (USD-0.00919) respectively, while in the post-adoption period the means for DP and ΔDP were NGN1.0148 (USD 0.0065) and NGN0.6983 (USD 0.00450) respectively.

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The means of DP under post-adoption were greater in the post-adoption period of IFRS but the means for ΔDP were lower under the post-adoption period of IFRS. This is possible because, during the pre-adoption period, banks and other firms in Nigeria received bail outs from the government and there were greater purchases of fixed asset particularly non-financial firms. The means of TAX and ΔTAX in the pre-adoption period were NGN1.8021 (USD 0.0116) and NGN0.3125 (USD 0.0020) respectively, and, during the post-adoption period, the means for TAX and ΔTAX were NGN1.4368 (USD 0.00921) and NGN0.8971 (USD 0.0055) respectively. The mean value for TAX under pre-adoption was higher than the post-adoption period while ΔTAX was greater in the post-adoption period.

The summary of the results from the two Panels provided evidence of greater means after post-adoption of IRS from the stock price model. This is consistent with Peter and Nnorom's (2013) reported on the appreciation of the Nigerian equities market from 2012 to 2013. Also, the All-share index rose by 13.44% recording 79 equities gains in January 2013 (NSE, 2013). The return model had post-adoption means for NI, ΔNI, ΔOE, OI, ΔOI, DP, ΔDP LTAX that were greater than pre-adoption means. The means for OE, NII, ΔNII, and TAX were greater during the pre-adoption period.

The lower means during the post-adoption period could be attributed to government intervention and changes in accounting regulations from 2012 to 2013. The new accounting reporting suggested use of fair value accounting for financial instruments which could reduce the cost of assets. For example, Liu et al. (2012) stated that results during the post-adoption period often provided support for the differences for the relevance of accounting information, and also when a new standard is applied to the same accounting regulations. The net operating margin of firms during the period declined from 4.46% to 2.57% but, the operating income increased to 57.78% during the period (NSE, 2013). The effect of the operating margin has been another factor affecting the operating income in the period.

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However, the results of t-tests for the statistical significance between the variables provided no significant differences among the variables means. The stock price and return models provided no statistically significant differences between the means in all the variables from the t-tests. The results of skewness and kurtosis were provided in the Table 5.2 The skewness of data ranged from -0.04 to -2.04, and kurtosis ranged from 1.62 to 3.69 under stock prices for the pre-adoption and post-adoption periods and from -1.95 to 1.55 for skewness and from 2.47 to 3.68 for the kurtosis in the return model for the pre-adoption

and post-adoption periods. Moreover, the means of all variables for the return model were lower for than the price models. The reason was that variables were deflated by different scales in the different models.

5.3.3 Descriptive Statistics for Book Value, and Accruals

Table 5.5 described the descriptive statistics for book value and accruals for the study. Panel A and B in Table 5.3 present the variables for the stock price and return regressions, respectively. Panel A is for the stock price regressions showing the number of observation of 378 firm-observations in the pre-adoption period (2009-2011 three years) and 252 firm-observations based for the post-adoption period (2012-2013 two years). The number of samples under post-adoption was lower than the pre-adoption due to the number of years in each of the categories. The mean of BVPS was NGN6.1698 (USD0.0387) in the pre-adoption period, which was lower than the mean of BVPS in the post-adoption period NGN7.6382 (USD0.0479).

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The mean of ACC was also NGN0.586140 (USD0.003757) in the pre-adoption period, which was lower than the mean of ACC NGN0.7779 (USD0.004987) in the post-adoption period. All the means in the post-adoption period were greater than the post-adoption of IFRS. The period of pre-adoption witnessed large fall out of shares and collapsed of several firms. In the year after the government of Nigeria injected funds to banks inform of loans. After the pre-adoption of IFRS the share price as well the increase in market capitalisation was noticed.

Table 5.3
Descriptive Statistics for the Book Value, Accruals

Panel A: Price Model

	PRE-ADOPTION 2009-2011						POST-ADOPTION 2012-2013						T-test	
Varible	Obs	Mean	Std	Min	Max	Skew	Kurt	Obs	Mean	Std	Min	Max	Skew	Kurt	t-value	p-value
SP	378	17.7114	61.7596	0.44	898.00	0.53	2.69	252	21.3724	77.5763	0.48	1100.00	0.47	2.58	0.0823	0.5328
BVPS	378	6.1698	12.5686	-16.95	163.79	0.50	2.77	252	7.6382	11.8957	-1.51	77.28	0.24	2.36	1.4566	0.0729
ACC	378	0.5861	1.7759	0.00	12.80	-0.91	2.87	252	0.7779	2.4849	0.00	25.50	-1.27	2.68	1.1272	0.1300

Panel B: Return Model

	PRE-ADOPTION 2009-2011							POST-ADOPTION 2012-2013						T-test	
Variable	Obs	Mean	Std. Dev.	Min	Max	Ske	Kurt	Obs	Mean	Std. Dev.	Min	Max	Skew	Kurt	t-value	p-value
RET	378	0.1345	0.9491	-0.74	9.74	-0.16	2.47	252	0.4285	1.0077	-0.86	6.67	-0.48	2.89	-3.6775	0.9999
E	378	0.3021	2.0354	0.00	7.02	0.20	2.77	252	2.2113	9.4242	0.00	27.57	0.24	2.36	0.4566	0.0029
ΔE	378	0.2653	0.1222	0.00	0.12	0.10	2.77	252	0.4237	2.3526	0.00	13.86	0.24	2.36	0.4874	0.3131
ACC	378	0.0077	0.7299	0.00	4.01	-1.93	2.62	252	0.1056	0.6836	0.00	4.01	-1.55	2.63	-0.2366	0.4065
ΔACC	378	0.0144	7.0552	-30.16	126.85	-0.51	2.66	252	0.1394	35.1338	-51.70	539.49	-1.12	2.57	0.4873	0.3131

Notes: Panel A, SP = share prices three months after the fiscal year for the firm. BVPS = the book value per share for firm i at the end of year t, ACC = accruals per share (earnings - cash flows) for firm i at the end of year t,. AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise.

Panel B: RET =stock return (inclusive of dividends) three months ended for firm i after the fiscal year, BV = is the book value for firm i at the end of year t, ΔBV = is the change in book value for firm i at the end of year t, ACC = accruals (earnings - cash flows) for firm i at the end of year t, ΔACC = change in accruals (earnings - cash flows) for firm i at the end of year t. Allare deflated by the market capitalisation at the end of the fiscal year.

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Panel B is the stock return model showing the number of observation of 378 firm-observations in the pre-adoption period (2009-2011 three years) and 252 firm-observations based in the post-adoption period (2012-2013 two years). The mean of E and ΔE were NGN0.3021(USD0.002413) and NGN0.653 (USD0.0021) in the pre-adoption period respectively, while in the post-adoption period the means were NG2.2113(USD0.00218) and NGN0.6327 (USD0.00406) for BV and ΔBV respectively, which were greater than the pre-adoption means of IFRS for E and ΔBV. The lower mean in book value could be that during the pre-adoption period of IFRS several government interventions took place during the period including improvement on the market capitalisation.

The mean of ACC and ΔACC were NGN0.0077 (USD0.00005) and NGN0.0144 (USD0.00009) in the pre-adoption period respectively, while in the post-adoption period the means for ACC and ΔACC were NGN0.1056 (USD0.00068) and NGN0.1394 (USD0.00089) respectively, with greater ΔACC mean in the post-adoption period of IFRS.

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The results summary of the two Panels provided evidence of greater mean values for all variables under the post-adoption period for both stock price and returns regressions descriptive data. This shows that stock prices and return improved during the post-adoption adoption. This finding is consistent with Egwuatuand Nnorom (2013) who reported on the appreciation of the Nigerian equities market in 2012 to 2013. Also, the All-share index rose by 13.44% recording 79 equities gains in January 2013 (NSE, 2013). In addition, government intervention and change in accounting regulations from 2012 to 2013 could have also attributed to the greater means after IFRS adoption. Additionally, Liu et al.

(2012) stated that results shown after post-adoption often provided support for the differences for the relevance of accounting information, as when a new standard is applied to the same accounting regulations.

The results from t-tests for the statistical significance between the variables provided significant differences among the variables means for BVPS ($p < 10\%$). This provided evidence of statistical differences between the pre-adoption and post-adoption periods for BV only. The return model exhibited no statistically significant differences between the means of all the variables expect earnings with $P<5\%$ from the t-tests. In the pre-adoption period, the data was skewed from between -1.27 to 0.62, and the kurtosis ranged from 2.42 to 2.83. In the post-adoption period, the skewness ranged from -1.19 to 1.12, and kurtosis ranged 2.19 to 2.63.

5.3.4 Descriptive Statistics for Book Value, Earnings, and Dividends

Table 5.6 showed the descriptive statistics for book value, earnings, and dividends for the study. Panels A and B in Table 5.4 present the variables for the stock price and return regressions, respectively.

Panel A is for the stock price regressions showing 378 observations for the pre-adoption period (2009-2011 three years) and 252 firm observations based for the post-adoption period (2012-2013 two years). The number of samples in the post-adoption period was lower those in the pre-adoption period. The mean of BVPS was NGN6.1698 (USD0.0387) in the pre-adoption period, which was lower than the mean of BVPS in the post-adoption period NGN7.6382 (USD0.0479).

Table 5.4

Descriptive Statistics for the Book Value, Earnings, and Dividends

Panel A: Stock Price Model

PRE-ADOPTION 2009-2011								POST-ADOPTION 2012-2013						T-test	
Variable	Obs	Mean	Std. Dev.	Min	Max	Ske	Kurt	Obs	Mean	Std. Dev.	Min	Max	Skew	Kurt	t-value	p-value
SP	378	17.7114	61.7596	0.44	898.00	0.53	2.69	252	21.3724	77.5763	0.48	1100	0.47	2.58	0.0823	0.5328
BVPS	378	6.1698	12.5686	-16.95	163.79	0.50	2.77	252	7.6382	11.8957	-1.51	77.28	0.24	2.36	1.4566	0.0729
EPS	378	1.0676	3.4927	-15.93	38.09	-0.05	2.59	252	1.3752	3.3482	-2.12	28.08	0.00	2.33	1.1140	0.1329
DIV	378	0.0043	65.7136	-39.86	95.89	-0.15	2.37	252	2.0959	29.7554	-30.55	71.90	-0.58	2.93	4.4831	0.0000

Panel B: Return Model

PRE-ADOPTION 2009-2011								POST-ADOPTION 2012-2013					T-test		
Var	Obs	Mean	Std. Dev.	Min	Max	Ske	Kurt	Obs	Mean	Std. Dev.	Min	Max	Skew	Kurt	t-value	p-value
RET	378	0.1345	0.9491	-0.74	9.74	-0.16	2.47	252	0.4285	1.0077	-0.86	6.67	-0.48	2.89	-3.6775	0.9999
EARN	378	0.6659	4.3035	0.00	59.67	-0.05	2.59	252	0.5762	4.0433	0.00	60.72	0.00	2.33	1.1140	0.1329
ΔEARN	378	0.5901	5.5764	0.00	73.17	0.77	2.13	252	0.4253	4.2246	0.00	51.57	0.39	2.64	0.8378	0.7988
DIV	378	0.0033	4.6931	7.69	34.92	-0.15	2.37	252	0.5097	8.6236	-5.73	48.25	-0.58	2.93	4.4831	0.0000
ΔDIV	378	0.0006	0.3918	-3.74	3.62	-0.01	2.87	252	0.0212	0.4115	-4.18	2.18	-0.28	2.38	0.4549	0.6753

Notes: Panel A, SP = share prices three months after the fiscal year for firm. BVPS = the book value per share for firm i at the end of year t, EPS = earnings per share for firm i at the end of year t, DIV = dividends for firm i at the end of year t. DIV= dividends for firm i at the end of the year t. All variables are deflated by the total number of outstanding shares.

Panel B: RET =Stock return (inclusive of dividends) three months ended for firm i after the fiscal year end, ΔEARN = change in earnings for firm i at the end of year t, ΔDIV = change in dividends for firm i at the end of year t. All variables are deflated by the market capitalisation at the end of the fiscal year.

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The mean of EPS was NGN1.0676 (USD0.006840) in the pre-adoption period, which was lower than mean of EPS NGN1.3752 (USD0.00882) in the post-adoption period. Also, DIV mean was NGN0.0043(USD0.00003) in the pre-adoption period, which was lower than the DIV mean of NGN2.0959 (USD0.01344) in the post-adoption period.

Panel B Table 5.4 reported the stock return model showing the means for EARN and ΔEARN means were NGN0.6659 (USD0.00427) and NGN0.5901 (USD0.00378) in the pre-adoption period respectively, while in the post-adoption period the means for EARN and ΔEARN were NGN0.5762 (USD0.00369) and NGN0.4253 (USD0.002726) respectively. The means for both EARN and ΔEARN presented greater means at the pre-adoption periods.

The means for DIV and ΔDIV in the pre-adoption period were NGN0.0033 (USD0.000021) and NGN0.0006 (USD0.00004) respectively, while in the post-adoption period the means for DIV and ΔDIV were NGN0.5097 (0.003267) and NGN0.0212 (USD0.000136) respectively. The means for the DIV and ΔDIV were greater under the IFRS period. This means that there is an increase in mean value for dividends and change in dividends after IFRS adoption.

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The results from t-tests for the statistical significance between the variables provided significant differences between BVPs and DIV ($p < 10\%$). This shows that there is difference in reporting on DIV between NGAAP and IFRS. However, variables SP does not present any significance differences between pre-IFRS and post-IFRS adoption. This provided evidence that reporting in the two periods has no differences. The return model BVPS and DIV presented a significant statistical differences between the means at $p < 10\%$ on the t-test. The variables SP, EARN, ΔEARN and ΔDIV showed no evidence in change between

pre-IFRS and Post-IFRS. The results of skewness and kurtosis were within the required limit range. In the pre-adoption period, the data skewed between -1.19 to 0.62, and the kurtosis ranged from 2.42 to 2.83. In the post-adoption period, the skewness ranged from -1.19 to 0.77 and kurtosis ranged 1.74 to 2.93. All were within the acceptable limits. Moreover, the means of all variables under the return model were lower than the price models. The reason was that variables were deflated by different scales in the different models.

5.4 Pearson Correlations for Stock Price and Stock Return

Pearson's correlation matrix is a primary source of providing relevant information on the accounting disclosures (Barth et al., 1996). A summary of Pearson's correlation statistics for the dependent and independent variables presented for stock prices and stock return in the section. All variables of the same objectives correlation coefficient were presented in the section. The study panels were divided into pre-adoption and post adoption of IFRS for both stock price and return regression models.

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5.4.1 Pearson's Correlation for Assets and Liabilities

Table 5.5 presented variables that are positively, negatively or not associated with share prices. In the pre-adoption period in Panel A, the variable TA had a positive correlation of 0.4080 at a 1% significance level with share prices, signifying that an increase in TA will provide an incremental increase in stock prices. Also, a negative correlation with a coefficient of -0.1292 existed for TL at a significance level of 1% with the stock price. This shows that a decrease in TL will provide an increase in stock price.

Table 5.5
Pearson's Correlation for Assets and Liabilities-Price Model
Panel A: PRE-ADOPTION 2009-2011

	SP	TA	TL	CA	FA	CL	NCL
SP	1.000						
TA	0.4080***	1.000					
TL	-0.1292***	-0.0181	1.000				
CA	0.1498***	0.0584	0.9910***	1.000			
FA	0.1197***	0.0595	-0.0123	-0.0052	1.000		
CL	-0.0389	0.2428***	-0.0045	0.0216	-0.004	1.000	
NCL	-0.1126***	-0.0261	0.9950***	0.0949	-0.0132	-0.0075	1.000
Panel B: POST-ADOPTION 2012-2013							
	SP	TA	TL	CA	FA	CL	NCL
SP	1.000						
TA	0.4166***	1.000					
TL	-0.1233**	0.0009	1.000				
CA	0.1750***	0.1515**	0.9711***	1.000			
FA	0.1536***	0.0255	-0.0194	-0.0112	1.000		
CL	-0.1148***	0.2988***	-0.0022	0.067	0.0008	1.000	
NCL	-0.1979**	-0.0125	0.9885***	0.0786	-0.02	-0.0088	1.000

Note: *** significance level, 1% ** significance level 5%, and * significance 10%.

However, in the post-adoption period in Panel B, the variable TA had a positive correlation with a coefficient of 0.4166 at a significance level of 1% with stock price, which was higher than pre-adoption period. The variable TL had a coefficient of -0.1233 that was negative in the post-adoption period at a 1% significance level, which was lower than TL in the pre-adoption period. This result is consistent with the other studies that reported positive relationships for TA and negative relationships for TL (Barth, Beaver, & Landsman, 1996). The findings have provided evidence that stock prices are positively and negatively related to TA and TL respectively for the pre-and post-adoption of IFRS. In addition, the price correlation with the TA and has shown an increase after the IFRS adoption and decrease in correlation for TL. The increase in assets and decrease in liabilities coefficients suggest use of the TA and TL by the investors found under IFRS more informative for investments than figures reported during pre-IFRS adoption.

In the pre-adoption period in Panel A, Table 5.5 variable CA was positively correlated with stock prices with a coefficient of 0.1480 at a 1% significance level. Also, in the post-adoption period in Panel B, the variable CA had a coefficient of 0.1750 correlation that

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greater in the stock price model at a 1% significance level.The variable FA had a positive correlation with stock price at significant levels of 1% (Pre-adoption= 0.1197 and post-adoption=0.1536). The coefficients under pre-adoption are lower than the post-adoption of IFRS periods. The variable CL in Panel A had no significant correlation with stock price but presented a negative coefficient of -0.1148 at significant level of 1% with stock price in the post-adoption period. Also, the variables NCL reported lower negative significantcorrelation than post-adoption of IFRS (Pre-adoption=-0.1126 versus post-adoption=0.1979) with stock price at 1% level.

The variables NCL and TL provided a higher correlation at both pre-and post-adoption of IFRS at 1%. However, there would be no issue in the regression analysis as the two variables were not reported in the same model.

Panel C and Panel D in Table 5.6 provided data for stock return model for the pre-adoption and post-adoption periods respectively. In Panel C for the pre-adoption period, TA had a positive correlation with a coefficient of 0.2709 at a significance level of 1% with the stock return and ΔTA was also positive and significant with a coefficient of 0.1088 at 5% significance of correlation with stock return.

Table 5.6
Pearson's Correlation for Assets and Liabilities-Return Model
Panel C: PRE-ADOPTION 2009-2011

Var	RET	TA	ΔTA	TL	ΔTL	CA	ΔCA	FA	ΔFA	CL	ΔCL	NCL	ΔNCL
RET	1.0000												
TA	0.2709***	1.0000											
ΔTA	0.1088***	0.0006	1.0000										
TL	-0.1043***	0.1635***	-0.0075	1.0000									
ΔTL	-0.0074	0.1056**	-0.0094	-0.0170	1.0000								
CA	0.1765***	0.0014	0.0443	-0.0075	-0.0094	1.0000							
ΔCA	0.0564**	-0.0589**	-0.0402**	-0.0177	0.0369	-0.0399	1.0000						
FA	0.0080	-0.0649	0.1177***	-0.0013	-0.0064	0.1543**	-0.0176	1.0000					
ΔFA	0.1036***	-0.0536**	0.7456***	-0.0070	-0.0113	0.7456**	-0.0409	0.4287	1.0000				
CL	-0.1028***	-0.0391	-0.0132	-0.0081	-0.0155	-0.0132	0.0946*	0.0033	-0.0107	1.0000			
ΔCL	-0.0636	0.0048	-0.0612	0.0354	0.0864	-0.0612	0.6459*	0.0092	-0.0415	0.1031	1.0000		
CL	-0.1328***	-0.0489	-0.0423**	-0.0077	-0.0383**	-0.0423	0.3278*	-0.0162	-0.0428	0.1037	0.6020	1.0000	
ΔNCL	-0.0282	0.0034	-0.0170	-0.0139	-0.0184	-0.0170	0.3027*	-0.0085	-0.0165	0.3463	0.2002	0.3221	1.0000

Panel D: POST-ADOPTION 2012-2013

Var	RET	TA	ΔTA	TL	ΔTL	CA	ΔCA	FA	ΔFA	CL	ΔCL	NCL	ΔNCL
RET	1.0000												
TA	0.3842***	1.0000											
ΔTA	0.1907***	0.0132	1.0000										
TL	-0.1425***	0.1530*	-0.0082	1.0000									
ΔTL	-0.1301***	0.1087*	-0.0092	-0.0200	1.0000								
CA	0.2207***	0.0321	0.0231	-0.0082	-0.0092	1.0000							
ΔCA	0.1100***	0.0593	-0.0230	0.3059	0.0282	-0.0230	1.0000						
FA	0.1019***	-0.0737	0.5158	-0.0137	-0.0090	0.5158	0.0060	1.0000					
ΔFA	0.1001***	-0.0110	0.3567	0.0058	-0.0135	0.3567***	-0.0396	0.2433	1.0000				
CL	-0.1215***	0.0561	-0.0089	0.0153	-0.0110	-0.0089	-0.0065	-0.0071	-0.0094	1.0000			
ΔCL	-0.0582	0.0664	-0.0429	0.1175	0.0356	-0.0429	0.7079***	0.0485	-0.0981	0.0255	1.0000		
NCL	-0.1038***	0.0860	-0.0365	0.3091	-0.0422	-0.0365	0.4195	-0.0180	-0.0454	-0.0055	0.6538	1.0000	
ΔNCL	-0.0455	0.0078	-0.0132	-0.0100	-0.0171	-0.0132	0.2693	0.0087	-0.0139	-0.0084	0.1840***	0.2804***	1.0000

Note: *** significance 1%, **significance 5%, and * significance 10%.

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Panel C above presented variables CA, and FA, had positive correlations with stock return with coefficients (CA = 0.1765, 1% significance level, ΔCA=0.0564 at significant level of 1%, ΔFA=0.1036 at 1% significant level, CL=-0.1028 at 1 % significant level, and NCL=0.1328 at 1% significant level) for the pre-adoption period. The variables ΔTL, FA, ΔCL, and ΔNCL, provided insignificant correlation with stock return during the pre-adoption period. In Panel D, the post-adoption period variables CA, FA and ΔFA with positive correlations with stock return (CA = 0.2207, 1% significance level,ΔCA=0.1100 at a significant level of 1%, FA=0.1019 at significant level of 1%, ΔFA = 0.1001, 1% significance level, CL=0.1215 at significant level of 1%, NCL= -0.1038, at 1% significance level) for the post-adoption period. The variables ΔCLand ΔNCL presented no significant correlations with stock return during the post-adoption period. Although, the results for the correlations have shown a higher correlation between NCL and TL but that will not be affected by the regression results because the two variables are not in the same model.

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The variables TA and ΔTA in the post-adoption period in Panel D had positive coefficients of 0.3842 and 0.1907 respectively at a significance level of 1% correlation with stock return. The post-adoption period presented a greater coefficient than the pre-adoption of IFRS for TA and ΔTA. These provide evidence of greater correlation in market capitalisation during the post-adoption period as reported by NSE in 2013. The variables TL in the pre-adoption periods had negative coefficients of -0.1043 at a significant level of 1% correlation with stock return while ΔTL coefficient presented insignificant correla-

tion with stock return. In the post-adoption period, the variable TL had a negative coefficient of -0.1425 at pre-adoption and ΔTL with greater coefficient of -0.1301 at post-adoption of IFRS at significant levels of 1% correlation with the stock return.

Notably, the coefficients on the assets and liabilities are constantly positives and negatives across the two models. Furthermore, all variables for the post-adoption period had significant and larger coefficients for both stock price and return models. Comparing the effect of IFRS on the selected assets and liabilities variables, there appears to suggest that adoption of IFRS rendered NGAAP financial reporting lower for investors valuations of stock. These claims are noticeable particularly, for TA and TL and selected assets and liabilities, CA, FA, CL, and NCL after IFRS adoption for stock price and stock return.

The rise in parameter coefficients after IFRS adoption suggested that Nigerian investors found accounting numbers provided as result of IFRS adoption were more informative than the figures provided under pre-adoption of IFRS. The positive correlation between assets and negative liabilities with security return has been consistent with Barth et al. (1996) and Venkatachalam (1996), Kadri et al.(2010), and Omokhudu & Ibadin, (2015b) for selected book value items. The period of 2008-2009 reported falling down of stock market causing greater loss for firms. However, in the year 2013, the NSE reported greater rise in share price and market capitalisation during the period of 2012 to 2013 after the financial crisis. The increase in coefficients after IFRS adoption is consistent with other prior value relevance studies(Chebaane & Othman, 2014b)

5.4.2 Pearson Correlations for Net Income and Operating Expenses

Table 5.7 presented Panel A and Panel B for stock price and Panel C and Panel D for stock return models. The correlation matrix in Panel A during the pre-adoption period

shows a positive value of coefficient 0.1694 for BV at a significance level of 1% for correlation with stock price. The variable NI presented 0.2345 correlation at a significant level of 1% with stock price. The variable OE in the Panel A and Panel B had no significant correlation with stock prices during the pre-and post-adoption of IFRS periods for the price model.

Table 5.7
Pearson's Correlation of Net Income and Operating Expense-Price Model

Panel A: PRE-ADOPTION 2009-2011

Var	SP	NI	OE	NII	OI	DP	TAX
SP	1.0000						
BV	0.1694***						
NI	0.2345***	1.0000					
OE	-0.0322	-0.0019	1.0000				
NII	0.1340***	0.9876	-0.0019	1.0000			
OI	0.1031***	0.9223***	-0.0047	0.2297	1.0000		
DP	-0.0734	0.8469***	0.0176	0.2469***	0.2900	1.0000	
TAX	-0.0189	0.2151***	0.0318	0.2151***	0.3791	0.2752	1.0000

Panel B: POST-ADOPTION 2012-2013

Var	SP	NI	OE	NII	OI	DP	TAX
SP	1.0000						
BV	0.4929						
NI	0.1757***	1.0000					
OE	-0.0136	0.0181	1.0000				
NII	0.1564***	0.3440	0.0181	1.0000			
OI	0.1557***	0.1996***	0.0464**	0.1996	1.0000		
DP	-0.1342***	0.4223	0.0187	0.1223	0.2291***	1.0000	
TAX	-0.1128***	0.1581	0.0327	0.1581	0.2462	0.1829**	1.0000

Note: *** Significance 1%, ** significance 5%, and * significance 10%.

The results of correlation of NI for the post-adoption period in Panel B had a coefficient of 0.1757 at a 1% significance level greater than pre-adoption period. The variables OE, DP, and TAX in the pre-adoption provided no significant correlation with stock price model. However, a significant correlation for NII, and OI was reported with coefficients (NII=0.1340 at a significant level of 1% and OI= 0.1031 at a significant level of 1%) at pre-adoption of IFRS. The post-adoption of IFRS period presented NII, and OI with positive significant coefficients correlations (NII=0.1564 at a significant level of 1% and

OI=0.1557 at a significant level of 1%, while DP, and TAX reported negative coefficients (DP=-0.1342 at a significant level of 1% , and TAX=-0.1128 at a significant level of 1%) that are correlated with stock price.

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Table 5.8
Pearson's Correlation of Netincome and Operating Expensive: Return Model
Panel A: PRE-*ADOPTION 2009-2011*

Var	RET	NI	ΔNI	OE	ΔOE	NII	ΔNII	OI	ΔOI	DP	ΔDP	TAX	
RET	1.0000												
NI	0.1264***	1.0000											
ΔNI	0.1098***	0.1743**	1.0000										
OE	-0.0066	-0.0226	-0.0535	1.0000									
ΔOE	-0.0090	-0.0081	-0.0186	-0.0069	1.0000								
NII	0.1100***	0.4529**	-0.0615	-0.0217	-0.0020	1.0000							
ΔNII	0.1036***	-0.2717	0.0202	0.0060	0.0028	-0.1027	1.0000						
OI	0.1026**	0.1071	-0.0096	-0.0125	-0.0031	0.0532	-0.0367	1.0000					
ΔOI	0.0675	-0.0330	0.0296	0.0082	0.0040	-0.0062	-0.0232	-0.1729	1.0000				
DP	-0.1099**	0.2927**	0.1826	-0.8215**	-0.0072	0.3555	-0.2789	0.1053	-0.0328	1.0000			
ΔDP	-0.0318	-0.5183**	-0.1484**	0.0063	0.0068	-0.2078	-0.2266	-0.0526	0.0356	-0.5233	1.0000		
TAX	-0.0095	0.2329	0.1113	-0.0076	0.0059	-0.0058	0.0027	0.0092	0.0053	0.2369**	0.1340	1.0000	
ΔTAX	-0.0050	0.1632	0.0449	-0.0042	0.0066	-0.0049	0.0012	-0.0080	0.0086	0.1662	0.1381	0.2551*	1.0000
Panel B: PRE-*ADOPTION 2009-2011*													
RET	1.0000												
NI	0.1483***	1.0000											
ΔNI	0.1186***	0.0365	1.0000										
OE	-0.0377	-0.0222	-0.0608	1.0000									
ΔOE	-0.0270	-0.0055	-0.0199	-0.0086	1.0000								
NII	0.1216***	0.5118	-0.0247	-0.0246	-0.0046	1.0000							
ΔNII	0.1088***	0.0936	0.0211	-0.0009	0.0053	0.5617	1.0000						
OI	0.1183***	0.2221**	-0.0205	-0.0188	-0.0078	0.1116	0.0233	1.0000					
ΔOI	0.1029***	0.1954	-0.0164	-0.0174	-0.0049	0.0875	0.0248	0.9754	1.0000				
DP	-0.1099**	0.2981	0.0404	-0.0226	-0.8853	0.5050*	0.1165	0.2183	0.1914	1.0000			
ΔDP	-0.0165	0.1819	-0.0638	-0.0170	0.0073	0.4782	0.1502	0.1946	0.2044	0.7799	1.0000		
TAX	-0.1037***	0.3601	0.2554	-0.0122	-0.0044	-0.0039	-0.0032	0.0380	0.0627	0.3640	-0.1117	1.0000	
ΔTAX	-0.1005***	-0.3362	-0.1890**	0.0077	0.0019	0.0002	0.0042	-0.0281	-0.0462	-0.3395	0.1419	-0.9225	1.0000

Note: *** significance 1%, ** significance 5% and * significance 10%.

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The variables under post-adoption of IFRS suggested greater coefficients than the pre-adoption of IFRS. The higher correlation reported of NI with OI and DP will not affect the result of the regression models as they are not reported in the same models.

The return model has Panel C and Panel D for stock return correlation under pre-and post-adoption of IFRS respectively. The variable NI under Panel C had a positive coefficient of 0.1264 with a significance level of 1% correlation with the stock return in the pre-adoption period. The ΔNI provided a positive coefficient of 0.1098 correlations at a significant level of 1% with stock returns in the pre-adoption period. While in the post-adoption period in the Panel D of NI had a correlation of 0.1483 and ΔNI with coefficient of 0.1186 at a significance levels of 1% correlation with stock return.

The variables OE, ΔOE, ΔOI, ΔDP, TA and ΔTAX Panel C presented insignificant correlations with stock return at the pre-adoption period. However, variables NII, ΔNII, and OI provided positives correlations with stock price (NII=0.1100 at significant level of 1%, ΔNII=0.1036 at significant level of 1%, and OI=0.1026 at significant level of 1 %,).

The DP provided a negative coefficient of -0.1099 at significant level of 1% correlation with stock return. The post-adoption period Table 5.8 Panel D had variable NI and ΔNI with positive coefficients of 0.1483 and 0.1186 at significant level of 1% greater than the pre-adoption of IFRS. Variables OE and ΔOE do not have any significant correlation with stock return in the post-adoption period.

Furthermore, variables NII, ΔNII, OI, ΔOI, in Panel D provided positive correlations with stock return with coefficients (NII=0.1216 at significant level of 1%, ΔNII=0.1088 at significant level of 1%, OI=0.1183 at significant level of 1%, ΔOI=0.1029 at significant level

of 1 %,) after IFRS adoption. The variables DP had negative coefficient of -0.1099 correlated with stock return at significant level of 1% while ΔDP had no significant correlations with stock return. The variables TAX and ΔTAX at the post adoption provided coefficients -0.1037 and -0.1005 at significant levels of 1% correlation with stock return.

The results from both stock price and return model suggested an incremental value relevance of financial reporting after IFRS adoption. This suggested that investors in Nigeria found more value in accounting numbers after IFRS adoption. The persistent increase in coefficients after IFRS adoption suggested that IFRS provided effect to the accounting figures. The variable OE in both stock price and return models do not provide any significant correlations, showing that investors do not use the variable in stock valuations. The coefficients of determination from the correlations do not support any higher correlation between the variables in the models. Suggesting that issue of multicollinearity does not seems to be an issue in the model. Gujarati (2004) suggested that 0.8 to be highly correlated. This findings are also consistent with Barth et al. (2014) for net income to have significant correlation with stock price, Kadri et al. (2010) and Omokhudu and Ibadin (2015a) depreciation and tax expenses to be significantly correlated with stock price. Also, the study of Fuensanta, Pedro, and Juan (2016) net income, operating income, tax to be correlated with stock return.

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5.4.3 Pearson's Correlations for Book Value and Accruals

The Pearson correlations for book value and accruals, are presented in Table 5.9 in Panels A, B, for C and D. The Panels A and B show the stock price model for the pre-adoption and post-adoption periods while Panels C and D show the stock return for the pre-adoption and post-adoption periods.

All variables had positive correlations with stock price under the pre-adoption of IFRS period that presented insignificant correlation. In Panel A, BVPS had a positive correlation with stock price with a coefficient of 0.1694 at a significance level of 1% in the pre-adoption period. The post-adoption period for BVPS presented greater coefficients than the pre-adoption with coefficient 0.4929 at a significance level of 1% correlation with stock price.

Table 5.9
Pearson's Correlation of Book Value and Accruals-Price Model

Panel A: PRE-ADOPTION 2009-2011

Variables	SP	BVPS	ACC	CF
SP	1.0000			
BVPS	0.1694***	1.0000		
ACC	0.1148***	0.4016***	1.0000	
Panel B: POST-ADOPTION 2012-2013				
SP	1.0000			
BVPS	0.4929***	1.0000		
ACC	0.1533***	0.1076**	1.0000	

Note: *** significance 1%, ***significance 5%, and * significance 10%.

The variable ACC under pre-adoption provided a coefficient of 0.1148 at significance level of 1%, lower than the post-adoption coefficient of 0.1533 at a significance level of 1% correlation with stock price.

Table 5.10 for the return model Pearson correlations for book value and accruals and changes in book value and accruals for the pre-and post-adoption periods. The table has been divided into two panels, Panel A for the pre-adoption period and Panel B, for the post-adoption period. The pre-adoption period variables E, ΔE presented coefficients that were positives (E=0.1371 and ΔE=0.1012 at significant levels of 1%). The post-adoption period presented greater coefficient for BV at post-adoption of 0.1423 at 1% significant level and ΔE of 0.1056 at a significant level of 1%. The variables ACC, and ΔACC do present any significant correlations with stock return at pre-adoption period. At the post-

adoption period the variables ACC, ΔACC,at post-adoption presented positive correlation with stock return with coefficients (ACC=0.1127, ΔACC=0.1053 all at significant levels of 1%).

Table 5.10
Pearson's Correlation of Book Value and Accruals-Return Model

Panel A: PRE-ADOPTION 2009-2011

	RET	BV	ΔBV	ACC	ΔACC
RET	1.0000				
E	0.1317***	1.0000			
ΔE	0.1012***	0.4825***	1.0000		
ACC	0.0089	0.0265	0.0429	1.0000	
ΔACC	0.0033	-0.0008	-0.0498	-0.0236	1.0000
Panel B:POST-ADOPTION 2012-2013					
E	0.1423***	1.0000			
ΔE	0.1056***	0.4295***	1.0000		
ACC	0.1127***	0.0183	0.0037	1.0000	
ΔACC	0.1053***	0.0037	0.0023	0.4659*	1.0000

Note: *** significance 1% , ** significance 5%, and * significance 10%.

The results of the correlations between variables under both stock price and return model presented greater coefficients at the period of IFRS adoption. The increase in coefficients after IFRS adoption could be attributed to the change in financial reporting from domestic reporting to IFRS. The results in both periods have been reported to be within the acceptable limit of higher collinearity. Therefore, issue of multicollinearity has not been an issue in the study. The increase and significant correlation reported after IFRS adoption signifies that investors in Nigeria use accounting figures after IFRS adoption. The persistence increase in value relevance of earnings information has been consistent with prior literature under stock price (Barth et al., 1999) and stock return and accruals (Charitou, 1997a) book value and accruals for stock price and return (Bogstrand & Larson, 2012).

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5.4.4 Pearson Correlations for Book Value, Earnings and Dividends

The Pearson correlations for book value, earnings and dividends are presented in Table 5.11 has Panel A, and Panel B is the stock price and return model respectively for pre-adoption and post-adoption periods. All variables had a positive correlation with stock price. In Panel A, BVPS had a positive correlation with stock price having a coefficient of 0.1694 with a significance of 1% level in the pre-adoption period. In Panel B the post-adoption period of IFRS, the correlation coefficient was greater (BVPS=0.4929) at a significance level of 1% with stock price. The variable EPS under pre-adoption had a coefficient of 0.1392 at a significance level of a 1% correlation with stock prices.

The period of post-adoption presented a greater coefficient (EPS=0.1745) for EPS at significance level of a 1% correlation with stock price. Variables DIV at pre-adoption presented positive coefficient of 0.1049 and lower than the coefficient of 0.1444 at 1% significant correlations with stock price at post-adoption of IFRS.

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The findings of the correlation analysis in this model presented a greater coefficient after IFRS adoption for all variables. The increase in coefficients could be related to the effect of IFRS as NSE in 2013 reported improvement on share price and market capitalisation after IFRS adoption.

Table 5.11
Pearson's Correlation of Book Value, Earnings and Dividends-Price Model

Panel A: PRE-ADOPTION 2009-2011

Var	SP	BVPS	EPS	DIV

SP	1.0000			
BVPS	0.1694***	1.0000		
EPS	0.1392***	-0.0973	1.0000	
DIV	0.1049**	-0.0967	-0.6608*	1.0000
Panel B: POST-ADOPTION 2012-2013				
SP	1.0000			
BVPS	0.4929***	1.0000		
EPS	0.1745***	0.0609	1.0000	
DIV	0.1444***	-0.0696**	-0.3212**	1.0000

Note: *** significance 1%, ** significance 5%, and * significance 10%.

Panel C is for return model presented the correlations for book value, earnings and dividends and changes in book value, earnings and dividends for the pre-and post-adoption periods in panel D. The pre-adoption period variables EARN presented positive coefficients (EARN=0.1260) all at significant levels of 1% correlations with stock return.

Table 5.12

Pearson's Correlation of Earnings and Dividends-Return Mode- *Return Model*

Panel A: PRE-ADOPTION 2009-2011

Var	RET	EARN	ΔEARN	DIV	ΔDIV
RET	1.0000				
EARN	0.1260***	1.0000			
ΔEARN	0.0312	0.0123	1.0000		
DIV	0.2176***	-0.0305	0.0268	1.0000	
ΔDIV	0.0056	-0.0258	0.0072	-0.0528	1.0000
Panel B: POST_ADOPTION 2012-2013					
RET	1.0000				
EARN	0.2318***	1.0000			
ΔEARN	0.1318**	0.0038	1.0000		
DIV	0.1206***	0.4282***	0.0218	1.0000	
ΔDIV	0.0058	0.0115	0.0095	0.0129	1.0000

Note: *** significance 1%, ** significance 5%, and * significance 10%.

Also in the post-adoption period, EARN and ΔEARN presented coefficients (EARN=0.2318, ΔEARN=0.1318 and DIV=0.1206) at significant levels of 1% correlations with stock return. The variables ΔEARN presented insignificant correlations with stock return at pre-adoption period and ΔDIV does not have any significant correlations with stock return at pre-and post-adoption of IFRS.

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The result reported between pre-and post-adoption of IFRS suggested that coefficient of determination between the two periods were greater as a result of new accounting reporting. This showed that investors use accounting information more after IFRS adoption in Nigeria. These findings provided preliminary evidence that price and return have positive relationship book value earnings and dividends at the pre-and post-adoption of IFRS. However, the relationship is greater under stock price than return model particularly during pre-adoption period.

The positive significant relationship under the stock price model has been consistent with previous findings. For instance, for the book value and earnings, dividend (Richard & Zarowin, 2013) and book value and earnings (Hillier, Hodgson, & Ngole, 2016; Kargin, 2013). Similarly, under the stock return model the findings are consistent with other literature for earnings (see., Schaberl, 2016).

5.5 Regression Analysis

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The value relevance of all the objectives of this current study has been determined by dividing the samples into pre-and post IFRS adoption periods,consistent Devalle, Onali and Magarini (2010), and Kargin (2013), Sarquis and Augusto (2015). The Chow test (1960) is used in in this study to determine the statistical significance structural break in coefficient between the pre-and post IFRS adoption are based on the suggestion of Devalle, Onali and Magarini (2010) and Kargin (2013).The Chow test in this study determine whether structural break exist from coefficients in the relationship between market values and accounting numbers as a result of IFRS adoption in Nigeria.

5.5.1 Regression Analysis of Assets and Liabilities

Stock Price and Return Models

Table 5.13 presented the regression analysis of assets and liabilities for stock price and return respectively. The tables are further divided into two panels as Panel A for stock price and Panel B for stock return models. To account for the presence of heteroscedasticity in the model, all coefficients of the variables were adjusted using White's (1980) test for heteroscedasticity-consistent covariance and robust standard errors (p-values). Results for multicollinearity, otherwise known as the Variance Inflation Factor (VIF), for the models were all within the acceptable limit of less than 10. This signifies that multicollinearity was not an issue in the regressions.

The Chow test (1960) used in this study is for the structural break, if P<1%, and P<10% the case of statistically significant structural break.

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Price Model

The results for the pooled sample data in Table 5.15 provided TA, TL and AUD with valuable information in explaining stock price for both pre-and post-adoption of IFRS. The analysis reported positive coefficients for TA in the pre-and post-IFRS (pre=0.0354 versus post=0.2785) and negatives coefficients for TL (pre=-0.0242 versus post= -0.0707) at significance level of 1% for the relationship with stock prices as expected. The increase in coefficients by the TA and TL from pre-adoption to IFRS adoption periods, provided value relevance of accounting information after the adoption of IFRS for both TA and TL. Also, the variable AUD presented positive coefficients (pre=0.0524 versus post=0.6869) that are higher at the post-adoption of IFRS as expected.

Table 5.13
Regression Analysis Assets and liabilities: Hypothesis One (H1)

Panel A**:** Price Model

$\boldsymbol{SP_{it}^{SAS}} = \boldsymbol{\alpha_0} + \boldsymbol{\beta_1 TA_{it}^{SAS}} + \boldsymbol{\beta_2 TL_{it}^{SAS}} + \boldsymbol{\beta_3 AUD_{it}^{SAS}} \mu_{it}$----------Model 1

$\boldsymbol{SP_{it}^{IFRS}} = \boldsymbol{\alpha_0} + \boldsymbol{\beta_1 TA_{it}^{IFRS}} + \boldsymbol{\beta_2 TL_{it}^{IFRS}} + \boldsymbol{\beta_3 AUD_{it}^{IFRS}} \mu_{it}$----------Model 2

$\boldsymbol{SP_{it}^{SAS\&IFRS}} = \boldsymbol{\alpha_0} + \boldsymbol{\beta_1 TA_{it}^{SAS\&IFRS}} + \boldsymbol{\beta_2 TL_{it}^{SAS\&IFRS}} + \boldsymbol{\beta_3 AUD_{it}^{SAS\&IFRS}} + \boldsymbol{\beta_4 D} + \boldsymbol{\beta_5 DTA_{it}^{SAS\&IFRS}} + \boldsymbol{\beta_6 DTL_{it}^{SAS\&IFRS}} + \boldsymbol{\beta_7 DAUD_{it}^{SAS\&IFRS}} \mu_{it}$ Model 3

Price Model 1	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α_0	0.3265(4.00)***	0.8607(2.98)***	0.5342(4.00)***	
β_1	0.0354(4.02)***	0.2785(3.48)***	0.0354(4.02)***	1.04
β_2	-0.0242(-3.08)***	-0.0707(-3.12)***	-0.0242(-3.08)***	1.02
β_3	0.0524(3.23)***	0.6869(2.99)***	0.0524(3.23)***	1.03
β_4			**0.3301(3.45)*****	
β_5			0.2431(3.12)***	
β_6			-0.0465(-3.77)***	
β_7			0.6345(4.00)***	
R-Squared	0.2009	0.2735	0.2508	
White test	Chi=0.000			
Chow test(1960)	F=.18.08		P=0.0000	

Panel B: Return Regression Model

$RET_{it}^{SAS} = \alpha_0 + \beta_1 TA_{it}^{SAS} + \beta_2 \Delta TA_t^{SAS} + \beta_3 TL_{it}^{SAS} + \beta_4 \Delta TL_{it}^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it}$- Model 4

$RET_{it}^{IFRS} = \alpha_0 + \beta_1 TA_{it}^{IFRS} + \beta_2 \Delta TA_{it}^{IFRS} + \beta_3 TL_{it}^{IFRS} + \beta_4 \Delta TL_{it}^{IFRS} + \beta_5 AUD_{it}^{IFRS} \mu_{it}$Model 5

$RET_{it}^{SAS+IFRS} = \alpha_0 + \beta_1 TA_{it}^{SAS+IFRS} + \beta_2 \Delta TA_t^{SAS+IFRS} + \beta_3 TL_{it}^{SAS+IFRS} + \beta_4 \Delta TL_{it}^{SAS+IFRS} + \beta_5 AUD_{it}^{SAS+IFRS} + \beta_6 D + \beta_7 DTA_{it}^{SAS+IFRS} + \beta_8 D\Delta TA_{it}^{SAS+IFRS} + \beta_9 DTL_{it}^{SAS+IFRS} + \beta_{10} D\Delta TL_{it}^{SAS+IFRS} + \beta_{11} DAUD_{it}^{SAS+IFRS} \mu_{it}$ Model 6

Return Model	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α	0.2569(3.18)***	0.9093(5.04)***	0.6524(3.77)***	
β_1	0.0652(3.99)***	0.1364(3.01)***	0.0652(3.99)***	1.00
β_2	0.0525(2.98)***	0.1198(3.20)***	0.0525(2.98)***	1.10
β_3	-0.0376(-2.75)**	-0.0533(-3.75)***	-0.0376(-2.75)**	1.20
β_4	-0.0542(-4.11)***	-0.0209(-3.40)***	-0.0542(-4.11)***	1.10
β_5	0.0752(3.18)***	0.3415(3.77)**	0.0752(3.18)***	1.00
β_6			**0.4133(3.32)*****	
β_7			0.0712(2.52)**	
β_8			0.0672(3.00)***	
β_9			-0.0156(2.99)***	
β_{10}			-0.0667(-3.49)***	
β_{11}			0.2652(4.30)***	
R-Squared	0.1005	0.1289	0.1105	
White test	Chi=0.000			
Chow test(1960)	F=18.32			P=0.0000

Notes: *** significance 1%, **significance 5%, and * significance 10%

The Chow test (1960) is for the statistical difference in adjusted R^2 between Pre-and Post-adoption period of IFRS from table lists p-values. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity

This finding is consistent with the studies of Barth et al. (1996a), Hevas and Siougle (2012), and Song, Thomas, and Yi (2010) by reporting positive and negative coefficients for assets and liabilities respectively. The reported R-squared explanatory power of variance (Pre=20.09% and Post=27.35%). The increased R^2 was also consistent with other

value relevance studies such as Barth et al. (1996, 2014), Prather-Kinsey (2006) and Kadri at al. (2010).

The pooled data combining effect for the pre-and post-IFRS adoption pooled together with the introduction of dummy variable provided an explanatory power of R-squared of 25.08%. The slope coefficients for β_4 (Dummy (D)) of 0.3301 is positive and significant at 1% level. This shows that the combining effect of the TA, and AUD has effect to IFRS positively and negatively for TL. The slope coefficients for DTA, DTL, and DAUD are significance at 1% levels. In order to get the report of structural breaks in the model, Chow Test is used for the pooled data (if P<10%, P< 1% the case of statistically significant structural break).

Coefficients β_5, β_6, and β_7 provided an increase in value relevance for total assets (DTA), total liabilities (DTL) and audit(DAUD) respectively. Positive increase in DTA and DAUD means increase in accounting information. Also, the negative increase in DTL means an increase in value relevance of accounting information. These finding means that IFRS has effect on the new accounting reporting in Nigeria. This is because the slope coefficient for DTA was positive with an increase to 0.2431(β_5). Also, the slope coefficient for DTL was negative with an increased -0.0465(β_6) and DAUD presented an increased positive coefficient of 0.6345(β_7).

Coefficients for β_5, and β_7 are both positives and the values are statistically significant. The value for slope coefficient for β_6 is negative and value is statistically significant. Therefore, the results can be interpreted as that IFRS has effect on TA, TL and AUD after the implementation for the Nigerian firms. Since, Chow test is 18.08 at the 1% level, the

effect of IFRS is statistically significant. The increase in coefficients demonstrated an increase in the relevance of accounting information consistent with Kargin (2013), Kadri et al. (2010) and Graham et al. (2000).

Return Model

The regression results of the pre-adoption presented positive coefficients of TA (0.0652 and 0.1364) in the pre-and post-adoption periods of IFRS respectively) providing greater coefficient during the post-IFRS period at significant levels of 1%. The ΔTA presented a greater coefficient after IFRS adoption (Pre-IFRS=0.0525 and 0.1198 at post-IFRS) period at significant levels of 1% relationship with stock return. An increase of negative coefficients for TL (Pre-IFRS=-0.0376 and Post-IFRS= -0.0533) is reported at significance levels of 1% on the relationships with stock return. The variable ΔTL provided higher negative coefficients (Pre-IFRS=-0.0542 and Post-IFRS=-0.00209) after IFRS adoption at significant 1% levels of significant relationships with stock return. The variables assets and liabilities and change in assets and liabilities have shown an increase in value relevance from pre-adoption to post adoption of IFRS, by providing higher coefficients at the post-IFRS adoption.

The results for stock return are also consistent with Barth at el. (1996) for providing positive and negative coefficients. The variable AUD reported coefficients (Pre-IFRS=0.0752 and Post-IFRS 0.3415) that are greater after IFRS adoption with significance levels of 1% relationship with stock return. The regression results indicated an increase in value relevance by showing an increase in coefficients for all the variables.

For the pre-and post-adoption periods, the regression result found an increase in the explanatory power of R^2(pre-adoption = 10.05% versus post-adoption = 12.89%) of variance

with stock return. The R^2 after IFRS adoption was greater than the pre-adoption period of IFRS. The R^2 analysis indicated that the overall value relevance increased after IFRS adoption. The increase in R^2 are consistent with Barth et al. (1996). Also, consistent with an increase on assets reported by Jermakowicz et al. (2007), which could be from the merger and acquisitions and different accounting reporting, Khurana and Kim (2003), and Landsman (2007) that balance sheet disclosures were value relevant under new accounting reporting over time.

Coefficients for the dummy variable $\beta_6 D$ (dummy) reported a positive coefficient of 0.4133 with a significant level of 1% suggesting that combine effect of all variables is statistically significant at 1% level. The effect of IFRS among Nigerian firms is reported from the result by providing increase in DTA and DΔTA coefficient to 0.0712(β_7) and 0.0672(β_8) and the effects are positive. Also, the variables DTL and DΔTL coefficients are negative with an increase to -0.0156(β_9) and -0.0667(β_{10}) respectively. The variable DAUD coefficient was also positive with an increase to 0.2652(β_{11}). This shows that adoption of IFRS has effect on the value relevance of accounting information among Nigerian firms.

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The Coefficients of β_7, β_8, and β_{11} were positives and statistically significant while β_9,and β_{10} were negative and statistically significant. This result can be interpreted that IFRS has effect on the new accounting information among Nigerian firms under stock return model, as Chow test (1960) provided 18.32 at the statistical significant level of 1%, among Nigerian firms. The overall R^2 for the pooled data is reported to be at 11.05% . Therefore, the stock return full sample data provided a lower R^2 than the stock price model. The presence of lower R^2 under the return model has been reported in several studies (Goncharov &

Hodgson, 2011; Kothari & Zimmerman, 1995). Additionally, the findings of this current study showed that the slope coefficients of assets and liabilities increased from pre-adoption to post-adoption of IFRS. The findings indicated that both assets and liabilities had improved over time in the stock market. This could be attributed to the significant roles of the assets and liabilities played in firms accounting reporting.

In summary, the findings suggested a structural break in the relationship between market value and TA, and TL occurred as a switch to IFRS under stock price model. Also, a structural break is recorded under pooled estimation between stock return and TA, ΔTA, TL and ΔT because of an increase in coefficients as a result of switch to IFRS. This revealed an increase in value relevance of accounting information after IFRS adoption.

The overall results support hypothesis (H1) for both stock price and return model. This is consistent with Barth et al. (2006) and Daske et al. (2008) that accounting standards change with the changes in quality of reporting. Also, Okafor et al. (2016) reported increase in value relevance after IFRS adoption among Canadian firms.

Robustness Test

Table 5.14 is for robustness tests conducted to determine whether the effect of IFRS could provide different results than the full sample. Several studies conducted robustness tests using different methods such as stock price and stock return because of econometric issues (Sami & Zhou, 2004), using different regression techniques (Beisland, 2011).

The concern for this study was that, the effect of IFRS on the value relevance could be because of the presence of financial firms after the financial crisis. This method is consistent with the Okafor et al. (2016) by doing reobust test using non-fianncial firms and

Fuensanta et al. (2016) by excluding financial firms from their studies to find value relevance effect of non-financial firms, because of having more regulations. The estimated coefficients provided for the sub-samples were significantly like those of the full sample of financial and non-financial firms.

Therefore, to understand whether the increasing value relevance after IFRS adoption could be explained as a result of financial firm increasing value relevance immediately after financial crisis not because of the effect of IFRS. In this case, financial firms were eliminated and run regression for only the non-financial firms. The number of financial firms for the study was 54 with 15 banks and 39 non-banks financial institutions listed in the Nigerian capital market as at the period of study. Table 5.14 is for non-financial (70) firms listed from the Nigerian stock market. The samples are run for pre-and post-adoption and pooled samples with dummy variables for the IFRS in term of coefficients, significant levels and R^2s.

All coefficients presented higher explanatory power under IFRS for both stock price and return models. The results of the findings suggested similar results with full samples in term of coefficients and R^2. Therefore, it can be reported that the findings were robust enough and the results of the full sample is not driven by the financial institutions. The Chow test (1960) for the sub-sample did provide a structural break in the relationship between market value and assets and liabilities as a result of adoption of IFRS in Nigeria. Therefore, the conclusion for change in value relevance could not be altered for non-financial firms.

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Table 5.14

Robustness Test - Non-Financial Firms

Panel A: Price model

$SP_{it}^{SAS} = \alpha_0 + \beta_1 TA_{it}^{SAS} + \beta_2 TL_{it}^{SAS} + \beta_3 AUD_{it}^{SAS} \mu_{it}$----------Model 1

$SP_{it}^{IFRS} = \alpha_0 + \beta_1 TA_{it}^{IFRS} + \beta_2 TL_{it}^{IFRS} + \beta_3 AUD_{it}^{IFRS} \mu_{it}$----------Model 2

$SP_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 TA_{it}^{SAS\&IFRS} + \beta_2 TL_{it}^{SAS\&IFRS} + \beta_3 AUD_{it}^{SAS\&IFRS} + \beta_4 D + \beta_5 DTA_{it}^{SAS\&IFRS} + \beta_6 DTL_{it}^{SAS\&IFRS} + \beta_7 DAUD_{it}^{SAS\&IFRS} \mu_{it}$ Model 3

Price Model 1	Pre-adoption	Post-adoption	Pooled data	Mean VIF
A	0.4524(3.07)***	0.8342(3.09)***	0.3818(3.00)***	
β_1	0.0167(3.09)***	0.0695(3.52)***	0.0167(3.09)***	1.04
β_2	-0.0033(-3.04)**	-0.0283(-3.22)***	-0.0033(-3.04)**	1.02
β_3	0.3356(3.59)***	0.6597(3.00)***	0.3356(3.59)***	1.03
β_4			**0.0563(4.54)***	
β_5			0.0528(2.99)***	
β_6			-0.0250(-3.87)***	
β_7			0.3242(3.00)***	
R-Squared	0.1662	0.2409	02128	
White test	Chi=0.000			
Chow test(1960)	F=17.22		P=0.00409	

Panel B:Return Model

$RET_{it}^{SAS} = \alpha_0 + \beta_1 TA_{it}^{SAS} + \beta_2 \Delta TA_{it}^{SAS} + \beta_3 TL_{it}^{SAS} + \beta_4 \Delta TL_{it}^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it}$- Model 4

$RET_{it}^{IFRS} = \alpha_0 + \beta_1 TA_{it}^{IFRS} + \beta_2 \Delta TA_{it}^{IFRS} + \beta_3 TL_{it}^{IFRS} + \beta_4 \Delta TL_{it}^{IFRS} + \beta_5 AUD_{it}^{IFRS} \mu_{it}$

Model 5

$RET_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 TA_{it}^{SAS\&IFRS} + \beta_2 \Delta TA_{it}^{SAS\&FRS} + \beta_3 TL_{it}^{SAS\&IFRS} + \beta_4 \Delta TL_{it}^{SAS\&IFRS} + \beta_5 AUD_{it}^{SAS\&IFRS} + \beta_6 D + \beta_7 DTA_{it}^{SAS\&IFRS} + \beta_8 D\Delta TA_{it}^{SAS\&IFRS} + \beta_9 DTL_{it}^{SAS+IFRS} + \beta_{10} D\Delta TL_{it}^{SAS\&IFRS} + \beta_{11} DAUD_{it}^{SAS\&IFRS} + \mu_{it}$ *Model* 6

	Pre-adoption	Post-adoption	Pooled data	Mean VIF
A	0.2311(4.37)**	0.6721(4.70)***	0.3154(4.37)**	
β_1	0.0226(4.33)***	0.0651(3.51)***	0.0226(433)***	1.00
β_2	0.0333(3.38)***	0.0619(3.66)***	0.0333(3.38)***	1.10
β_3	-0.0342(-4.22)***	-0.0674(-3.32)***	-0.0342(-4.22)***	1.20
β_4	-0.0543(-4.37)**	-0.0719(-3.80)***	-0.0543(-4.37)**	1.10
β_5	0.3331(3.57)***	0.6552(3.78)**	0.3331(3.57)***	1.00
β_6			**0.0234(4.32)***	
β_7			0.0435(3.97)***	
β_8			0.0286(2.99)***	
β_9			-0.0332(-3.24)**	
β_{10}			-0.0176(3-.45)**	
β_{11}			0.3221(3.40)***	
R-Squared	0.1176	0.1876	0.1222	
White test	Chi=0.001			
Chow test(1960)	F=23.25		P=0.0006	

Notes: *** significance 1%, ** significance 5%, and * significance 10%.

Notes: *** significance 1%, ** significance 5%, and * significance 10%.

Variable definitions Panel B: RET = return for firm three months after the year end t.. ΔTA= Change in total assets for firm i at the end of fiscal year t., ΔTL= Change in total liabilities for firm i at the end of fiscal year t. AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2= Adjusted R^2 within the panel regression. The The Chow test (1960) is for the structural break between Pre-and Post-adoption of IFRS from table lists p-values.. All p-values are estimated based on the white's (1980) corrected error for heteroscedasticity. N=number of firms

Variable definitions Panel B: RET = return for firm three months after the year end t.. ΔTA= Change in total assets for firm i at the end of fiscal year t., ΔTL= Change in total liabilities for firm i at the end of fiscal year t. AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2= Adjusted R^2 within the panel regression. The The Chow test (1960) is for the structural break between Pre-and Post-adoption of IFRS from table lists p-values.. All p-values are estimated based on the white's (1980) corrected error for heteroscedasticity. N=number of firms

5.5.2 Regression Analysis of Selected Assets and Liabilities

This section is for the selected assets and liabilities using current assets, fixed assets, current liabilities and non-current liabilities. Studies on value relevance have been conducted on the selected assets and liabilities using fair value and historical cost and selected book value (balance sheet items) and income in different stock markets (Barth & Clinch, 1998; Kadri at al., 2010; Omokhudu & Ibadin, 2015). These studies used return model and stock prices individually and respectively. Therefore, this section considered the two models for the selected assets and liabilities using (assets = current assets and fixed assets) and liabilities (current liabilities and non-current liabilities).

Stock Price and Return Models

Table 5.15 Panel A reported the value relevance of disaggregated assets and liabilities for stock prices and the stock return regression model in Model 1B respectively.

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Price Model

The table provided coefficients of variable CA (0.1523 and 0.3938 in the pre-and post-adoption periods respectively) that were positives at significance levels of a 1% relationship with stock price. This indicated an increase in value relevance after IFRS adoption because of the increase in coefficients after IFRS adoption. The coefficients of variable FA (0.0673 and 0.3720 in the pre-and post-adoption periods of IFRS respectively) were positive and at significance levels of 1% relationship with stock price, demonstrating an increase in value relevance after IFRS adoption.

One interesting finding is for the positive coefficients for the FA, demonstrating that the higher the investment in the FA the higher the share price. This could be possible because

most firms, including banks in Nigeria, during the period of 2008 and 2009, were engaged heavily in real estate investments.

The variable CL had negative coefficients (-0.4220 and -0.7762 in the pre-and post-adoption periods of IFRS respectively) at a significance level of a 1% relationship with stock price. This is consistent with Kadri et al. (2010) who found that CA and CL had positive and negative coefficients. That means a decrease in liabilities could result in an increase in share price. Government intervention in the period of financial crisis could have reduced the burden of liabilities that was reported to have affected the Nigerian stock market in the year 2008 to 2009.

The NCL variable coefficients were also negative as expected (-0.6234 and -0.9270 in the pre-and post-adoption periods of IFRS respectively) at a significance level of a 1% relationship with stock price, indicating an increase in value relevance after IFRS adoption. The variable AUD provided coefficients (0.6534 and 0.9436 for the pre-and post-IFRS adoption at significant levels of 1%. This finding was consistent with Kabir et al. (2010) who found assets and liabilities to be more value relevant after IFRS adoption, Barth et al. (1996a) and Venkatachalam (1996) components of assets and liabilities presented positive and negative coefficients and reported increase in value relevance of accounting information.

Table 5.15
Selected Assets and Liabilities: Hypothesis Two (H2)

Panel A: Price Regression Model

$SP_{it}^{SAS} = \alpha_0 + \beta_1 CA_{it}^{SAS} + \beta_2 FA_{it}^{SAS} + \beta_3 CL_{it}^{SAS} + \beta_4 NCL_{it}^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it}$ Model 7

$SP_{it}^{IFRS} = \alpha_0 + \beta_1 CA_{it}^{IFRS} + \beta_2 FA_{it}^{IFRS} + \beta_3 CL_{it}^{IFRS} + \beta_4 NCL_{it}^{IFRS} + \beta_5 AUD_{it}^{IFRS} + \mu_{it}$ Model 8

$SP_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 CA_{it}^{SAS\&IFRS} + \beta_2 FA_{it}^{SAS\&IFRS} + \beta_3 CL_{it}^{SAS\&IFRS} + \beta_4 NCL_{it}^{SAS\&IFRS} + \beta_5 AUD_{it}^{SAS\&IFRS} + \beta_6 D + \beta_7 DCA_{it}^{SAS\&IFRS} + \beta_8 DFA_{it}^{SAS\&IFRS} + \beta_9 DCL_{it}^{SAS\&IFRS} + \beta_{10} DNCL_{it}^{SAS\&IFRS} + \beta_{11} DAUD_{it}^{SAS\&IFRS} + \mu_{it}$ Model 9

Price Model	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α_0	0.26358(4.51)***	0.8274(3.67)***	0.5638(3.08)***	
β_1	0.1523(4.51)***	0.3938(3.22)***	0.1523(4.51)***	1.00
β_2	0.0673(2.99)***	0.3720(3.65)***	0.0673(2.99)***	1.10
β_3	-0.4220(-2.98)***	-0.7762(-3.64)***	-0.4220(-2.98)***	1.20
β_4	-0.6234(-4.22)***	-0.9270(-3.55)***	-0.6234(-4.22)***	1.10
β_5	0.6534(3.67)***	0.9436(3.00)***	0.6534(3.67)***	1.00
β_6			**0.1824(2.90)*** **	
β_7			0.2415(3.90)***	
β_8			0.3047(3.12)**	
β_9			-0.3542(-2.99)***	
β_{10}			-0.3036(3.65)***	
β_{11}			0.2896(3.89)***	
R-Squared	0.3099	0.4507	0.3598	
White test	Chi=0.00342			
Chow test(1960)	F=26.76		0.00002	

Notes: *** significance, 1% ** significance 5%, and * significance 10%

1 price regression: $SP = \alpha_0 + \beta_1 CA_{it} + \beta_2 FA_{it} + \beta_3 CL_{it} + \beta_4 NCL_{it} + \beta_5 AUD_{it} + \mu_{it}$

Variable definitions for Table 5.12: SP = Share price of firm three months after the year end t. CA = Current assets per share of firm i at the end of fiscal year t. FA = Fixed assets for firm i at the end of fiscal year t. CL = Current liabilities per share of firm i at the end of fiscal year t. NCL = Non-current liabilities for firm i at the end of fiscal year t. AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2 = Adjusted R^2 within the panel regression. The Chow test (1960) is for the statistical difference in adjusted R^2 between Pre-and Post-adoption periods of IFRS from table lists p-values. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity.

Also, consistent with Omokhudu and Ibadin (2015) and Kadri at al. (2010) that the greater the investment on assets the higher the share price increase among firms. The explanatory power in the period explained 30.99% and 45.07% for the pre-and post-adoption periods of IFRS respectively indicated an increase in value relevance after IFRS adoption. This is consistent with , Barth et al. (1996a) and Venkatachalam (1996) by reporting increase in value relevance after IFRS adotion.

The coefficient for the dummy variable $\beta_6 D$ (0.1824) is significant at 1% level showing the combining pre-and post-adoption of IFRS periods are statistically significant. The coefficients for β_7, β_8, β_9, β_{10} and β_{11} reported effect of IFRS for the CA, FA, CL and NCL respectively. Given that, the result showed that IFRS has effect on the accounting information among Nigerian firms because the coefficients of DCA increased by 0.2415(β_7), DFA by 0.3047 (β_8), DCL by -0.3542(β_9), DNCL by -0.3036(β_{10}),and DAUD by 0.2896(β_{11}) for the pooled model and are statistically significant. The pooled sample provided a combined R^2 for the period of 35.98%. The Chow test (1960) is significant, suggested the effect of IFRS on the value relevance of accounting information by providing 26.76% at a significant level of 1%. This result does not suggest any significance decrease on the effect of IFRS among Nigerian firms. Therefore hypothesis two is accepted for the price model.

Return Model

The return model result for the selected assets and liabilities are presented in the Table 5.16. The result of the variables CA presented coefficients (0.0254 and 0.1018 in the pre-and post-adoption periods of IFRS respectively) at significance levels of 1% relationships with stock return. The variables ΔCA for the pre-and post adoption of IFRS presented coefficients 0.0325 and 0.0650 respectively at significant levels of 1% relationship with stock return. The variable FA and ΔFA in the table have coefficients 0.0376 and 0.0940 at significant levels of 1% relationship with stock return. The ΔFA provided coefficient of 0.0432 and 0.0654 at significant levels of 1% relationship with stock return in the pre-and post-adoption of IFRS respectively. The coefficients reported after the IFRS appears to be greater than the pre-adoption of IFRS. This suggested greater value relevance after

IFRS adoption. The result provided evidence that investors utilise assets variables in stock valuations during the pre-and post-adoption of IFRS.

Table 5.16
Selected Assets and Liabilities: Hypothesis Two (H2)
Panel B: Return Regression Model 1B

$RET_{it}^{SAS}=\alpha_0 + \beta_1 CA_{it}^{SAS} + \beta_2 \Delta CA_{it}^{SAS} + \beta_3 FA_{it}^{SAS} + \beta_4 \Delta FA_{it}^{SAS} + \beta_5 CL_{it}^{SAS} + \beta_6 \Delta CL_{it}^{SAS} + \beta_7 NCL_{it}^{SAS} + \beta_8 \Delta CA_{it}^{SAS} + \beta_9 AUD_{it}^{SAS} + \mu_{it}$ Model 10

$RET_{it}^{IFRS}= \alpha_0 + \beta_1 CA_{it}^{IFRS} + \beta_2 \Delta CA_{it}^{IFRS} + \beta_3 FA_{it}^{IFRS} + \beta_4 \Delta FA_{it}^{IFRS} + \beta_5 CL_{it}^{IFRS} + \beta_6 it + \beta_7 NCL_{it}^{IFRS} + \beta_8 \Delta CA_{it}^{IFRS} + \beta_9 AUD_{it}^{IFRS} + \mu_{it}$ Model 11

$RET_{it}^{SAS\&IFRS}= \alpha_0 + \beta_1 CA_{it}^{SAS\&IFRS} + \beta_2 \Delta CA_{it}^{SAS\&IFRS} + \beta_3 FA_{it}^{SAS\&IFRS} + \beta_4 \Delta FA_{it}^{SAS\&IFRS} + \beta_5 CL_{it}^{SAS\&IFRS} + \beta_6 \Delta CL_{it}^{SAS\&IFRS} + \beta_7 NCL_{it}^{SAS\&IFRS} + \beta_8 \Delta CA_{it}^{SAS\&IFRS} + \beta_9 AUD_{it}^{SAS\&IFRS} + \beta_{10} D + \beta_{11} DCA_{it}^{SAS\&IFRS} + \beta_{12} D\Delta CA_{it}^{SAS\&IFRS} + \beta_{13} DFA_{it}^{SAS\&IFRS} + \beta_{14} D\Delta FA_{it}^{SAS\&IFRS} + \beta_{15} DCL_{it}^{SAS\&IFRS} + \beta_{16} D\Delta CL_{it}^{SAS\&IFRS} + \beta_{17} DNCL_{it}^{SAS\&IFRS} + \beta_{18} \Delta DNCL_{it}^{SAS\&IFRS} + \beta_{19} DAUD_{it}^{SAS\&IFRS} + \mu_{it}$
Model 12

Return Model	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α_0	0.2570(3.18)***	0.4783(3.11)***	0.2213(7.77)***	
β_1	0.0254(3.40)***	0.1018(3.20)***	0.0254(3.40)***	1.00
β_2	0.0325(2.99)***	0.0650(0.88)***	0.0325(2.99)***	1.03
β_3	0.0376(3.00)***	0.0940(4.02)***	0.0376(3.00)***	1.01
β_4	0.0432(3.11)***	0.0654(3.99)***	0.0432(3.11)***	1.01
β_5	-0.0653(-4.99)***	-0.1328(-4.00)***	-0.0653(-4.99)***	1.03
β_6	-0.0422(-5.98)***	-0.0964(-4.90)***	-0.0422(-5.98)***	
β_7	-0.2564(-3.75)***	-0.2876(-3.68)***	-0.2564(-3.75)***	
β_8	-0.5423(-5.11)***	-0.6077(-3.11)***	-0.2652(-5.11)***	
β_9	0.2652(5.65)***	0.9177(3.90)***	0.2652(5.65)***	
β_{10}			**0.4653(4.32)*****	
β_{11}			0.0764(3.20)***	
β_{12}			0.0325(3.66)***	
β_{13}			0.0563(3.99)***	
β_{14}			0.0222(4.49)***	
β_{15}			-0.0674(-2.99)***	
β_{16}			-0.0542(-3.98)***	
β_{17}			-0.0312(-5.75)***	
β_{18}			-0.0653(-4.11)***	
β_{19}			0.6524(4.30)***	
R-Squared	0.1009	0.1609	0.1309	
White test	Chi=0.0001			
Chow test(1960)	F=38.00			P=0.00000

The variables CL, presented an increase in coefficients after IFRS adoption by providing -0.0653 and -0.1328 for the pre-and post-adoption of IFRS at significant level of 1% relationship with stock return. The variable ΔCL in the period reported -0.0422 and -0.0964 for the pre-and post-IFRS adoption respectively at significant levels of 1% relationship

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with stock return. Also, the variable NCL had negative coefficients (-0.2564 at 1%, and -0.2876 at 1% in the post-adoption period of IFRS respectively). The variable ΔNCL had negative coefficients of -0.5423 and -0.6077 at significant levels of 1% for the pre-and post-IFRS adoption respectively. The variable AUD had a positive coefficient of 0.2652 for pre-adoption and 0.9177 at post-adoption of IFRS at significance levels of 1% association with stock return.

From the pooled data the dummy variable β_{10}(D) provided a positive significant statistical coefficient (0.4653), showing that combining pre-and post-adoption of IFRS have effect on the value relevance of accounting information. Based on that it can be reported that IFRS has effect on the DCA, D**Δ**CA, FA, D**Δ**FA, DCL, DNCL, because coefficients have increased by 0.0764(β_{11}), 0.0325(β_{12}), 0.0563(β_{13}), 0.0222(β_{14}), -0.0674(β_{15}), -0.0542(β_{16}), -0.0312(β_{17}), -0.0653(β_{18}) and 0.06524(β_{19}) and provided statistical significant change in the effect of value relevance of accounting information after IFRS adoption. The combined explanatory power of variance for the R^2 was reported to be 13.09 % variance with stock return lower than the pooled data of stock price model.It could be concluded that IFRS has effect on the value relevance of accounting information among Nigerian firms. Chow test suggested a statistical significant effect for by providing 38.00 at a significant level of 1%. However, the effect of IFRS can be supported for among Nigerian firms.

This suggests a structural break in the relationship between CA, FA, CL and NCL with stock price occurred because of the IFRS adoption. Also, all the variables under stock return model presented significant relationship with stock return. This shows there is an effect of IFRS adoption among the Nigerian firms. This collaborated with Devalle, Onali and Magarini (2010) that, where coefficient significant is interpreted to be and indicators

of increase in value relevance, irrespective their signifcance. These findings are also consistent with Omokhudu and Ibadin (2015) and Kadri at al. (2010) for selected assets. The evidence in the change in value relevance is consistent with Jianwei and Chunjiao, (2007), Prather-Kinsey (2006) and Khurana and Kim (2003) between historical cost and fair value on the selected assets and liabilities. This is also consistent with Brown et al. (1999) who stated that scale effect could change the results of data, that have the similar variables. Thus, hypothesis two (H2) for the increase in value relevance after IFRS adoption cannot be rejected.

Robustness Test

Table 5.17 is for robustness tests conducted to determine whether the effect of IFRS could provide different results than the full sample. Several studies conducted robustness tests using different methods such as stock price and stock return because of econometric issues (Sami & Zhou, 2004), using different regression techniques (Beisland, 2011). The estimated figures provided for the sub-samples were significantly like those of the full samples, pre-and post-adoption of IFRS in term of coefficients, significances and R^2s. This is consistent with Barth et al., (2014).

The concern for this study was that, the effect of IFRS on the value relevance could be because of the presence of financial firms after the financial crisis. This method is consistent with the Okafor et al. (2016) by doing reobust test using non-fianncial firms and Fuensanta et al. (2016) by excluding financial firms from their studies to find value relevance effect of non-financial firms, because of having more regulations. The estimated coefficients provided for the sub-samples were significantly like those of the full sample of financial and non-financial firms.

Therefore, to understand whether the increasing value relevance after IFRS adoption could be explained as a result of financial firm increasing value relevance immediately after financial crisis not because of the effect of IFRS. In this case, financial firms were eliminated and run regression for only the non-financial firms. The number of financial firms for the study was 54 with 15 banks and 39 non-banks financial institutions listed in the Nigerian capital market as at the period of study. Table 5.17 is for non-financial (70) firms listed from the Nigerian stock market. The samples are run for pre-and post-adoption and pooled samples with dummy variables for the IFRS in term of coefficients, significant levels and R^2s.

Table 5.17
Robust Test Non-Financial Firms
Panel A: Price Model

$SP_{it}^{SAS} = \alpha_0 + \beta_1 CA_{it}^{SAS} + \beta_2 FA_{it}^{SAS} + \beta_3 CL_{it}^{SAS} + \beta_4 NCL_{it}^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it}$ Model 7

$SP_{it}^{IFRS} = \alpha_0 + \beta_1 CA_{it}^{IFRS} + \beta_2 FA_{it}^{IFRS} + \beta_3 CL_{it}^{IFRS} + \beta_4 NCL_{it}^{IFRS} + \beta_5 AUD_{it}^{IFRS} + \mu_{it}$ Model 8

$SP_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 D + \beta_2 CA_{it}^{SAS\&IFRS} + \beta_3 FA_{it}^{SAS\&IFRS} + \beta_4 CL_{it}^{SAS\&IFRS} + \beta_5 NCL_{it}^{SAS\&IFRS} + \beta_6 AUD_{it}^{SAS\&IFRS} + \beta_7 DCA_{it}^{SAS\&IFRS} + \beta_8 DFA_{it}^{SAS\&IFRS} + \beta_9 DCL_{it}^{SAS\&IFRS} + \beta_{10} DNCL_{it}^{SAS\&IFRS} + \beta_{11} DAUD_{it}^{SAS\&IFRS} + \mu_{it}$ Model 9

Return Model	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α	0.2541(4.54)***	0.7963(3.00)***	0.25413(4.54)***	
β_1	0.0427(3.01)***	0.1051(3.01)***	0.0427(3.01)***	1.00
β_2	0.2221(3.75)**	0.2546(3.19)***	0.2221(3.75)**	1.02
β_3	-0.0321(-3.13)**	0.0454(3.09)***	-0.0321(-3.13)**	1.11
β_4	-0.0542(-4.33)***	0.0777(2.99)***	-0.0542(-4.33)***	1.03
β_5	0.05423(4.39)***	0.6964(3.05)***	0.05423(4.39)***	1.10
β_6			**0.2872(3.90)***	
β_7			0.0624(3.08)***	
β_8			0.0325(3.22)**	
β_9			-0.0433(-2.99)***	
β_{10}			-0.0235(3.76)***	
β_{11}			0.6422(3.99)***	
R-Squared	0.0909	0.1112	0.1509	
White test	Chi=0.0001			
Chow test(1960)	F=27.88		P=0.00001	

1 price regression: $SP = \alpha_0 + \beta_1 CA_{it} + \beta_2 FA_{it} + \beta_3 CL_{it} + \beta_4 NCL_{it} + \beta_5 AUD_{it} + \mu_{it}$

Variable definitions for Table 5.12: SP = Share price of firm three months after the year end t. CA = Current assets per share of firm i at the end of fiscal year t. FA = Fixed assets for firm i at the end of fiscal year t. CL = Current liabilities per share of firm i at the end of fiscal year t. NCL = Non-current liabilities for firm i at the end of fiscal year t.

The results of the findings suggested similar results with full samples in term of coefficients and R^2. Therefore, it can be reported that the findings were robust enough and the results of the full sample is not driven by the financial institutions..

Table 5.18
Robust test Non-Financial Firms
Panel B: Return Regression Model

$$RET_{it}^{SAS}=\alpha_0 + \beta_1 CA_{it}^{SAS} + \beta_2 \Delta CA_{it}^{SAS} + \beta_3 FA_{it}^{SAS} + \beta_4 \Delta FA_{it}^{SAS} + \beta_5 CL_{it}^{SAS} + \beta_6 \Delta CL_{it}^{SAS} + \beta_7 NCL_{it}^{SAS} + \beta_8 \Delta CA_{it}^{SAS} + \beta_9 AUD_{it}^{SAS} + \mu_{it} \quad \text{Model 10}$$

$$RET_{it}^{IFRS}= \alpha_0 + \beta_1 CA_{it}^{IFRS} + \beta_2 \Delta CA_{it}^{IFRS} + \beta_3 FA_{it}^{IFRS} + \beta_4 \Delta FA_{it}^{IFRS} + \beta_5 CL_{it}^{IFRS} + \beta_6 it + \beta_7 NCL_{it}^{IFRS} + \beta_8 \Delta CA_{it}^{IFRS} + \beta_9 AUD_{it}^{IFRS} + \mu_{it} \quad \text{Model 11}$$

$$RET_{it}^{SAS\&IFRS}= \alpha_0 + \beta_1 CA_{it}^{SAS\&IFRS} + \beta_2 \Delta CA_{it}^{SAS\&IFRS} + \beta_3 FA_{it}^{SAS\&IFRS} + \beta_4 \Delta FA_{it}^{SAS\&IFRS} + \beta_5 CL_{it}^{SAS\&IFRS} + \beta_6 \Delta CL_{it}^{SAS\&IFRS} + \beta_7 NCL_{it}^{SAS\&IFRS} + \beta_8 \Delta CA_{it}^{SAS\&IFRS} + \beta_9 AUD_{it}^{SAS\&IFRS} + \beta_{10} D + \beta_{11} DCA_{it}^{SAS\&IFRS} + \beta_{12} D\Delta CA_{it}^{SAS\&IFRS} + \beta_{13} DFA_{it}^{SAS\&IFRS} + \beta_{14} D\Delta FA_{it}^{SAS\&IFRS} + \beta_{15} DCL_{it}^{SAS\&IFRS} + \beta_{16} D\Delta CL_{it}^{SAS\&IFRS} + \beta_{17} DNCL_{it}^{SAS\&IFRS} + \beta_{18} \Delta DNCL_{it}^{SAS\&IFRS} + \beta_{19} DAUD_{it}^{SAS\&IFRS} + \mu_{it} \quad \text{Model 12}$$

Return Model 1	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α_0	0.2541(4.89)***	0.8762(3.09)***	0.6221(4.89)***	
β_1	0.0231(2.99)***	0.0540(3.02)***	0.0231(2.99)***	1.05
β_2	0.4231(2.92)***	0.9294(2.99)***	0.4231(2.92)***	1.10
β_3	0.3321(3.09)***	0.8531(4.00)***	0.3321(3.09)***	1.04
β_4	0.0760(2.92)**	0.2150(3.00)***	0.0760(2.92)**	1.20
β_5	-0.0562(-2.90)**	-0.1202(2.99)***	-0.0562(-2.90)**	1.01
β_6	-0.0333(2.99)**	-0.0975(3.01)***	-0.0333(2.99)**	
β_7	-0.0569(3.38)***	-0.1408(3.00)***	-0.0569(3.38)***	
β_8	-0.0442(2.69)**	-0.1173(3.09)***	-0.0442(2.69)**	
β_9	0.0654(3.56)****	0.1450(3.05)***	0.0654(3.56)****	
β_{10}			**0.04321(4.30)****	
β_{11}			0.0309(5.01)***	
β_{12}			0.5063(4.00)**	
β_{13}			0.5210(3.98)***	
β_{14}			0.1390(3.12)***	
β_{15}			-0.0640(-2.50)**	
β_{16}			-0.0642(-3.19)***	
β_{17}			-0.0839(-2.99)***	
β_{18}			-0.0731(-3.66)**	
β_{19}			0.0796(3.90)***	
R-Squared	0.0162	0.0201	0.0601	
White test	Chi=0.000			
Chow test(1960)	F=14.21		P=0.00004	

Notes: *** significance 1% , ** significance 5%, and * significance 10%.

variable definitions for Table 15.14: RET= return of firm three months after the year end t. CA=Current assets for firm i at the end of fiscal year t. ΔCA= Change in current assets for firm i at the end of fiscal year t. FA = fixed assets for firm i at the end of fiscal year t. ΔFA = Change in fixed assets for firm i at the end of fiscal year t. CL= Current liabilities for firm i at the end of fiscal year t. ΔCL= Change in current liabilities for firm i at the end of fiscal year t. NCL= Non-current liabilities for firm i at the end of fiscal year t. ΔNCL= Change in non-current liabilities for firm i at the end of fiscal year t. AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2 = Adjusted R^2 within the panel regression. Chow test (1960) is for the statistical difference in adjusted R^2 between Pre- and Post-adoption of IFRS from table lists p-values. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity.

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The Chow test (1960) for the sub-sample did provide a structural break in the relationship between market value and assets and liabilities as a result of adoption of IFRS in Nigeria. Therefore, the conclusion for change in value relevance could not be altered for non-financial firms. Therefore, it can be reported that the findings were robust enough. The Chow test (1960) for the pooled sample provide a structural break between in the relationship between market value and the accounting measures as a result of IFRS adoption.

5.5.3 Net Income and Operating Expenses Models

This section provides regression result for both stock price and returns models for Net income and Operating Expenses with selected net income and selected operating expenses into panels. In addition, White's (1980) test, VIF and the Chow test (1960) for pooled sample estimations for the coefficients structural break between pre-and post-IFRS adoption.

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Stock Price and Return Regression Models

Table 5.19 presented pooled data, pre-and post-adoption of IFRS regression analysis of NI and OE. The multicollinearity for all the variables is lower than two (VIF<2), which is within the acceptable limit. Therefore, multicollinearity is not an issue in the analysis. White's (1980) test was significant, demonstrating that heteroscedasticity is present in the model. However, all p-values are based on White's robust standard error.

Price Model

Table 5.19 presented regression analysis for the book value, net income and operating expenses. In the Table, the coefficients for the variable BV were positives (pre IFRS=0.0524 and Post IFRS= 0.1377) at a significant levels of 1% relationship with stock

price. The variable NI coefficients were positives (Pre-IFRS= 0.0043 and Post-IFRS=0.0324) at a significant levels of 1% relationship with stock price. The increase in coefficients from pre-IFRS to Post-IFRS suggested an increase in value relevance after IFRS adoption, consistent with Kargin (2013).

Table 5.19
Regression Analysis of Net Income and Operating Expenses-Hypothesis Three (H3)

Panel A: Price Regression Model 2A

$SP_{it}^{SAS} = \alpha_0 + \beta_1 BV_{it}^{SAS} + \beta_2 NI_{it}^{SAS} \beta_3 OE_{it}^{SAS} + \beta_4 AUD_{it}^{SAS} + \mu_{it}$---------- Model 13

$SP_{it}^{IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 NI_{it}^{IFRS} + \beta_3 OE_{it}^{IFRS} + \beta_4 AUD_{it}^{IFRS} + \mu_{it}$------ Model 14

$SP_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 BV_{it}^{SAS\&IFRS} + \beta_2 NI_{it}^{SAS\&IFRS} + \beta_3 OE_{it}^{SAS\&IFRS} + \beta_4 AUD_{it}^{SAS\&IFRS} + \beta_5 D + \beta_6 DBV_{it}^{SAS\&IFRS} + \beta_7 DNI_{it}^{SAS\&IFRS} + \beta_8 DOE_{it}^{SAS\&IFRS} + \beta_9 DAUD_{it}^{SAS\&IFRS} \mu_{it}$ Model 15

Price Model 1	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α_0	0.2541(3.99)***	0.7828(3.12)***	0.3409(4.56)***	
β_1	0.0524(2.99)***	0.1377(3.99)***	0.0524(2.99)***	1.01
β_2	0.0043(4.00)***	0.0324(4.00)***	0.0043(4.00)***	1.03
β_3	-0.0232(-3.60)***	-0.0542(-3.24)***	-0.0232(-3.60)***	1.04
β_4	0.0424(3.65)***	0.1066(3.44)***	0.0424(3.65)***	101
β_5			**0.3312(4.98)****	
β_6			0.0853(4.90)***	
β_7			0.0281(3.12)***	
β_8			-0.0310(3.44)***	
β_9			0.0642(3.99)***	
R-Squared	0.2981	0.4022	0.3142	
White test	Chi=0.0009			
Chow test(1960)	F=24.24		P=0.000020	

Notes: ***Significance 1% **significance 5% * significance 10%.

Variable definitions for Table 5.17: Price= stock price firm three months after the year end t. BV=book value for firm i at the end of fiscal year t , NI = Net income for firm i at the end of fiscal year t. OE = operating expense for firm i at the end of fiscal year t. AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2 = Adjusted R^2 within the panel regression. The Chow test (1960) is the statistical difference in adjusted R^2 between Pre-and Post-adoption of IFRS from table lists p-values. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity.

The result of OE coefficients were negative as expected and were presented (Pre-IFRS=-0.-0232 and Post-IFRS= -0.0542) at a significant levels of 1% relationship with stock price. The results suggested that, investors use accounting information under expenses for valuation of stock price. The variable AUD provided coefficients (Pre-IFRS=0.0424 and

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Post-IFRS=0.1066) at a significant level of 1% relationship with stock price. This suggested that audit after the IFRS provided better accounting information than before the IFRS adoption.

The findings for both positive book value and net income showed that accounting information is used by the investors in assessing book value and net income for valuing stock prices in Nigeria. Consistent with Barth et al. (1996a) that investors assessed income amount when valuing a firm and not in consistent with Tsalavoutas, André and Evans, (2012) who reported a decrease in coefficient of NI after IFRS adoption. Barth *et al.*, (2014) reported that investors view book value and net income from IAS 39 Financial Instruments: Recognition and Measurement to provide more relevant information than under domestic standardsby reporting. The indication on the positive coefficient shows that investors are more interested in firm growth particularly if default risk is lower.

The OE variable reported a higher coefficient after IFRS adoption. This shows that value relevance has increased after IFRS adoption. This proved that investors did not utilise OE in firm's valuation during pre-adoption of IFRS. The significant relationship after the adoption of IFRS, the negative coefficient in the result provided evidence that the more investment for OE the riskier it is for the firm.

The relevance and increase in AUD provided evidence of how investors find financial statement useful for investment decisions. This is also consistent with Ball et al. (2000) that an investor finds a financial statement useful based on other factors of institutional features, which include the auditing of an adoption of IFRS firm.

The explanatory power of R^2 for the pre-adoption period was 29.81% and was 40.22% in post-adoption period for explaining the variance between accounting numbers and stock

price. The value of R^2 was greater after the adoption of IFRS, consistent with Gjerde et al. (2008) and Fuensanta et al.(2016) that book value and net income are significant and presented greater value relevance after IFRS adoption. In addition, Choi (2007) stated that a positive coefficient for NI indicates the significant role of an income statement in explaining firm values.

The dummy variable β_5 (D) reported a significant coefficients of 0.3312 at a significant level of 1%, showing a combining effect of IFRS on the Nigerian accounting reporting. Coefficients of $\beta_6, \beta_7, \beta_8, \beta_9$ suggest the effect of IFRS on the Nigerian financial reporting for book value, net income and operating expenses respectively. Given that, it can be reported that IFRS has effect on the value relevance of accounting information among Nigerian firms because of the increase in coefficient by 0.0853 (β_6), 0.0281(β_7), -0.0310(β_8) and 0.0642(β_9) and the effect were significant.

The result of the pooled data presented coefficients that are positives for β_6, β_7, and β_9, and a negative coefficient for β_8 with statistical significance of 1% levels. The combined explanatory power R^2 during the period presents 31.42% variance with stock return. This suggested from the results that IFRS has effect on the book value, net income and operating expenses among Nigerian firms. Chow test (1960) result was significant with F=24.24 at 1% level, suggesting statistical significant effect of IFRS in the value relevance of accounting information among Nigerian firms. Therefore, hypothesis two for the effect of IFRS on the value relevance of accounting information cannot be rejected.

Return Model

Table 5.20 was for the return regression model in Panel B for the pooled data presented coefficients for NI (Pre-IFRS= 0.0345 and Post-IFRS= 0.0901) at significant levels of

1% relationship with stock return. The variable ΔNI coefficients (Pre-IFRS= 0.0476 and Post-IFRS= 0.1208) at significant levels of 1% relationship with stock return. This is consistent with Beisland (2009) that positive income has a significant explanatory variable for future cash flows and earnings in a stock return. The increase in NI coefficients after IFRS adoption indicated increase in value relevance after IFRS adoption

The coefficients for the OE and ΔOE were negative -0.0033 and -0.0026 at significance levels of a 1% relationship with stock return respectively. The result of the OE coefficient was negative (Pre-IFRS=-0.0178 and Post-IFRS=0.0619) at significant level of 1% and 10% relationship with stock return respectively.

The variable ΔOE coefficients was reported to be negative (Pre-IFRS=0.0222 and Post-IFRS= -0.0559) at a significant levels of 1% relationship with stock return. The variable AUD had coefficients (Pre-IFRS= 0.1652 and Post-IFRS=0.3387) at significance levels of 1% relationship with stock return. The adjusted R^2 for the pre-adoption period was reported to be lower than the post-adoption period (Pre-IFRS 23.65% and Post-IFRS=18.50% variance with stock return).

The lower R^2 demonstrated lower value relevance of accounting information if going by other studies of Barth (1994, 1996) and Francis and Schipper (1995) that higher R^2 demonstrate higher value relevance. Therefore, lower R^2 will suggest lower value relevance of accounting information.

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Table 5.20
Net Income and Operating Expenses Hypothesis Three (H3)
Panel B: Return Regression Model 2 B (H3)

$RET_{it}^{SAS} = \alpha_0 + \beta_1 NI_{it}^{SAS} + \beta_2 \Delta NI_{it}^{SAS} + \beta_3 OE_{it}^{SAS} + \beta_4 \Delta OE_{It}^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it}$- Model 16

$RET_{it}^{IFRS} = \alpha_0 + \beta_1 NI_{it}^{IFRS} + \beta_2 \Delta NI_{it}^{IFRS} + \beta_3 OE_{it}^{IFRS} + \beta_4 \Delta OE_{it}^{IFRS} + \beta_5 AUD_{it}^{IFRS} \mu_{it}$ Model 17

$RET_{it}^{SAS+IFRS} = \alpha_0 + \beta_1 NI_{it}^{SAS\&IFRS} + \beta_2 \Delta NI_{it}^{SAS\&IFRS} + \beta_3 OE_{it}^{SAS\&IFRS} + \beta_4 \Delta OE_{it}^{SAS\&IFRS} + \beta_5 AUD_{it}^{SAS\&IFRS} + \beta_6 D + \beta_7 DNI_{it}^{SAS\&IFRS} + \beta_8 D\Delta NI_{it}^{SAS\&IFRS} + \beta_9 DOE_{it}^{SAS\&IFRS} + \beta_{10} D\Delta OE_{It}^{SAS\&IFRS} + \beta_{11} DAUD_{it}^{SAS\&IFRS} \mu_{it}$ *Model* 18

Return Model	Pre-adoption	Post-adoption	Pooled data	Mean VIF
A	0.0152(-0.24)	0.0524(1.42)	0.0372(1.01)	
β_1	0.0345(2.99)***	0.0901(2.99)***	0.0345(2.99)***	1.01
β_2	0.0476(3.92)***	0.1208(3.11)***	0.0476(3.92)***	1.02
β_3	-0.0178(-2.99)***	-0.0619(-2.46)**	-0.0178(-2.99)***	1.00
β_4	-0.0222(-4.00)***	-0.0559(-3.44)***	-0.0222(-4.00)***	1.04
β_5	0.1652(3.67)***	0.3387(2.58)**	0.1652(3.67)***	1.03
β_6			**0.0631(3.59)***	
β_7			0.0556(1.40)	
β_8			0.0732(3.11)***	
β_9			-0.0441(-3.00)**	
β_{10}			-0.0337(-1.54)	
β_{11}			0.1735(2.87)**	
R-Squared	0.2365	0.1850	0.1440	
White test	Chi=0.0001			
Chow test(1960)	F=6.40		0.41421	

Notes: ***Significance 1% **significance 5% * significance 10%.
Variable definitions for Table 5.17: RET = return of firm three months after the year end t. NI = Net income for firm i at the end of fiscal year t. ΔNI = Change in net income for firm i at the end of fiscal year t. OE = operating expense for firm i at the end of fiscal year t. ΔOE = Change in operating expenses for firm i at the end of fiscal year t. AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2 = Adjusted R^2 within the panel regression. The Chow test (1960) is the statistical difference in adjusted R^2 between Pre-and Post-adoption of IFRS from table lists p-values. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity.

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Based on the coefficients, the increase reported will suggest higher value relevance on the individual variables. This is consistent with Wang and Welker (2011) who found that investors rely on net income in stock return for valuation of firms and Ahmed et al. (2013) reported value relevance of accounting information for net income and operating expenses. However, not consistent with Choi (2007) who a reported negative change in net income

The result reported for the dummy variable β_6(0.0631) and was significant at 1% level explaining the combining effect of pooled data for the pre-and post-adoption of IFRS. The dummy interaction for the period presented coefficients β_7(0.0556) that do not provide

any significant relationship with stock return, β_8(0.0732) with a significant level of 1% relationship with stock return, β_9(-0.0441) with significant relationship with stock return, β_{10}(-0.0337) with insignificant relationship with stock return, and β_{11}(0.1735) at a significant levels of 5% relationship with stock return. The combined explanatory power variance under pooled date explained 14.40% in variance with stock return. The R^2 for the period was lower than the stock price regression consistent with literature reporting lower adjusted R^2 under stock return model.

The result of Chow test (1960) do not support any significant increase in value relevance increase in value relevance by reporting (value relevance, F = 6.40 at a significant P-value = 0.41421). This implies that there is no structural break in the relationship between accounting numbers and stock return. Therefore, hypothesis three (H3) that net income and operating expenses presented more value relevance of accounting information after IFRS adoption for stock return model cannot be accepted under return model.

Robustness Test for Non-Financial

The robustness test reported is for the net income and operating expenses to determine the robustness of the data and model. The estimated coefficients provided for the sub-samples were significantly like those of the full samples, pre-and post-adoption of IFRS

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Table 5.21

Robust Test for Non-Financial Firms

Panel A: Price Regression Model 2A

$SP_{it}^{SAS} = \alpha_0 + \beta_1 BV_{it}^{SAS} + \beta_2 NI_{it}^{SAS} \beta_3 OE_{it}^{SAS} + \beta_4 AUD_{it}^{SAS} + \mu_{it}$---------- Model 13

$SP_{it}^{IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 NI_{it}^{IFRS} + \beta_3 OE_{it}^{IFRS} + \beta_4 AUD_{it}^{IFRS} + \mu_{it}$------ Model 14

$SP_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 BV_{it}^{SAS\&IFRS} + \beta_2 NI_{it}^{SAS\&IFRS} + \beta_3 OE_{it}^{SAS\&IFRS} + \beta_4 AUD_{it}^{SAS\&IFRS} + \beta_5 D + \beta_6 DBV_{it}^{SAS\&IFRS} + \beta_7 DNI_{it}^{SAS\&IFRS} + \beta_8 DOE_{it}^{SAS\&IFRS} + \beta_9 DAUD_{it}^{SAS\&IFRS} \mu_{it}$ Model 15

Price Model 1	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α_0	0.2107(3.85)***	0.5635(3.88)***	0.4400(2.56)**	
β_1	0.0333(3.01)**	0.0856(3.15)***	0.0333(3.01)**	1.00
β_2	0.0234(3.25)***	0.0658(3.07)***	0.0234(3.25)***	1.03
β_3	-0.0245(-3.71)***	-0.0587(-4.00)***	-0.0245(-3.71)***	1.02
β_4	0.2011(3.36)***	0.5320(2.99)***	0.2011(3.36)***	1.10
β_5			**0.0260(3.08)******	
β_6			0.0523(2.90)***	
β_7			0.0424(3.00)***	
β_8			-0.0342(4.00)***	
β_9			0.3309(3.22)***	
R-Squared	0.0967	0.1233	0.1709	
White test	Chi=0.0009			
Chow test(1960)	F=16.20		P=0.001002	

Panel B: Return Regression Model 2B

$RET_{it}^{SAS} = \alpha_0 + \beta_1 NI_{it}^{SAS} + \beta_2 \Delta NI_{it}^{SAS} + \beta_3 OE_{it}^{SAS} + \beta_4 \Delta OE_{it}^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it}$- Model 16

$RET_{it}^{IFRS} = \alpha_0 + \beta_1 NI_{it}^{IFRS} + \beta_2 \Delta NI_{it}^{IFRS} + \beta_3 OE_{it}^{IFRS} + \beta_4 \Delta OE_{it}^{IFRS} + \beta_5 AUD_{it}^{IFRS} \mu_{it}$Model 17

$RET_{it}^{SAS+IFRS} = \alpha_0 + \beta_1 NI_{it}^{SAS\&IFRS} + \beta_2 \Delta NI_{it}^{SAS\&IFRS} + \beta_3 OE_{it}^{SAS\&IFRS} + \beta_4 \Delta OE_{it}^{SAS\&IFRS} + \beta_5 AUD_{it}^{SAS\&IFRS} + \beta_6 D + \beta_7 DNI_{it}^{SAS\&IFRS} + \beta_8 D\Delta NI_{it}^{SAS\&IFRS} + \beta_9 DOE_{it}^{SAS\&IFRS} + \beta_{10} D\Delta OE_{It}^{SAS\&IFRS} + \beta_{11} DAUD_{it}^{SAS\&IFRS} \mu_{it}$ *Model* 18

Return Model	Pre-adoption	Post-adoption	Pooled data	Mean VIF
A	-0.0272(-0.34)	0.0059(1.42)	0.0331(1.03)	
β_1	0.0040(3.35)***	0.0497(3.90)***	0.0040(3.35)***	1.00
β_2	0.0399(2.12)***	0.0841(3.39)***	0.0399(2.12)***	1.03
β_3	-0.0063(-2.91)***	-0.0154(-3.60)***	-0.0063(-2.91)***	1.00
β_4	-0.0056(-4.32)***	-0.0153(-3.44)***	-0.0056(-4.32)***	1.03
β_5	0.1544(3.92)***	0.5279(3.58)**	0.1544(3.92)***	1.04
β_6			**0.0245(2.95)****	
β_7			0.0457(1.40)	
β_8			0.0442(3.61)***	
β_9			-0.0091(-2.90)***	
β_{10}			-0.0097(-1.20)	
β_{11}			0.3735(3.97)***	
R-Squared	0.1122	0.1650	0.1376	
White test	Chi=0.0001			
Chow test(1960)	F=7..83		0.221143	

Notes: *** significance 1%, ** significance 5%, and * significance 10%.

Variable definitions for Table 5.15: SP = Share pr3ce of firm three months after the year end t.Bv= book value of equity for firm i period t NI = Net Income per share of firm i at the end of fiscal year t. OE = Operating Expenses for firm i at the end of fiscal year t.

Variable definitions for Table 15.15: RET = return of firm three months after the year end t. NI = Net income for firm i at the end of fiscal year t. ΔNI = Change in net income for firm i at the end of fiscal year t. OE = operating expense for firm i at the end of fiscal year t. ΔOE = Change in operating expenses for firm i at the end of fiscal year t.

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in terms of coefficients, significances and R^2. Therefore, the findings were robust enough.

The estimated coefficients provided for the sub-samples were significantly like those of the full samples, pre-and post-adoption of IFRS in term of coefficients, significances and R^2s. The result of the findings for the price regression model presented an increase in value relevance in Table 5.21 for non-financial firms respectively. The stock price pre-IFRS adoption reported an increase in coefficients after IFRS adoption for all the models. The general results provided an increased R^2 for stock price and a decrease in return model after IFRS adoption for the full samples and non-financial firms, when financial firms were removed from the regression models.

The empirical evidence of the increased value relevance after IFRS adoption is noticed for non-financial firms' under-price and return model in value relevance.

Therefore, it can be reported that the findings were robust enough. The Chow test (1960) pooled estimation for the sub-sample did provide structural break in the relationship between stock and return model with accounting measures. Therefore, the conclusion for increase in value relevance could not be altered for non-financial firms.

5.5.4 Selected Net Income and Operating Expenses

The regression analysis in the Table 5.22 presented selected net income and operating expenses. First pooled data was regressed, then pre-adoption and post-adoption of IFRS for the BV NII, OI, DP, TAX and control variable AUD were also regressed against the dependents variables.

Stock Price

Table 5.22 presented Model 2 B, Panel A, for book value and selected net income (NII and OE) and operating expenses (DP and TAX) for the pooled data, pre-and post-adoption of IFRS.

The results of the regression for variable BV coefficient was positives (Pre-IFRS=0.0421 and Post-IFRS=0.1985 at significant levels of 1% respectively) in relationship with stock price. The variable NII was also positive (Pre-IFRS=0.0543 and Post-IFRS=0.1220 at significant levels of 1% in relationship with sock prices). The variable OI had positive coefficients (Pre-IFRS=0.0213 and Post-IFRS=0.0679 at significance levels of a 1% association with stock price) This is consistent with Cutillas-Gomariz et al. (2016) that book value and operating income was value relevant afetr IFRS adoption. The coefficients for both NII and OI were higher in the post-adoption period, suggesting higher utilisation of NII and OI by the investors during the post adoption period.

The coefficients of DP and TAX at Pre-IFRS presented insignificant relationship with stock price.

However, after the IFRS adoption the coefficients were positives (DP=-0.1087 and TAX=-0.0621) at significant levels of 1% and 5% relationship with stock price respectively. This suggested higher value relevance after IFRS adoption.

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Table 5.22
Selected Net Income and Operating Expenses-Hypothesis Four(H4)

Panel A: Price Regression Model 2 C(H4)

$$SP_{it}^{SAS} = \alpha_0 + \beta_1 BV_{it}^{SAS} + \beta_2 NII_{it}^{SAS} + \beta_3 OI_{it}^{SAS} + \beta_4 DP_{it}^{SAS} + \beta_5 TAX_{it}^{SAS} + \beta_6 AUD_{it}^{SAS} + \mu_{it}$$ Model 19

$$SP_{it}^{IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 NII_{it}^{IFRS} + \beta_3 OI_{it}^{IFRS} + \beta_4 DP_{it}^{IFRS} + \beta_5 TAX_{it}^{IFRS} + \beta_6 AUD_{it}^{IFRS} + \mu_{it}$$ Model 20

$$SP_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 BV_{it}^{ISA\&FRS} + \beta_2 NII_{it}^{SAS\&IFRS} + \beta_3 OI_{it}^{SAS\&IFRS} + \beta_4 DP_{it}^{SA\&+IFRS} + \beta_5 TAX_{it}^{SAS\&IFRS} + \beta_6 AUD_{it}^{SAS\&IFRS} + \beta_7 D + \beta_8 DBV_{it}^{SAS\&IFRS} + \beta_9 DNII_{it}^{SAS\&IFRS} + \beta_{10} DOI_{it}^{SAS\&IFRS} + \beta_{11} DDP_{it}^{SAS+IFRS} + \beta_{12} DTAX_{it}^{SAS+IFRS} + \beta_{13} DAUD_{it}^{SAS+IFRS} \mu_{it}$$
Model 21

Return Model	Pre-adoption	Post-adoption	Pooled data	Mean VIF
A	0.4564(3.44)***	0.7445(3.65)***	0.2877(3.09)***	
β_1	0.0421(3.44)***	0.1985(3.65)***	0.0421(3.44)***	1.06
β_2	0.0543(3.54)***	0.1220(3.21***	0.0543(3.54)***	1.03
β_3	0.0213(3.00)***	0.0679(3.21)***	0.0213(3.00)***	1.02
β_4	-0.0321(-1.43)	-0.1087(-3.28)***	-0.0321(-1.43)	1.01
β_5	-0.0222(-1.53)	-0.0621(-2.28)**	-0.0222(-1.53)	1.01
β_6	0.4321(3.25)***	1.0247(3.01)***	0.4321(3.25)***	
β_7			**0.3421(3.24)***	
β_8			0.1563(4.01)***	
β_9			0.0677(3.99)***	
β_{10}			0.0465(2.99)***	
β_{11}			-0.0765(-2.98)**	
β_{12}			-0.0399(-3.01)***	
β_{13}			0.5926(3.04)**	
R-Squared	0.2544	0.3523	0.3125	
White test	Chi=0.00222			
Chow test(1960)	F=17.87		P=0.00234	

Notes; ***Significance 1% **significance 5% * significance 10%

Variable definitions for Table 5.20: RET = return of firm three months after the year end t. NII = Net interest income for firm i at the end of fiscal year t. OI = Operating income for firm i at the end of fiscal year t. . DP= Depreciation for firm i at the end of fiscal year t. TAX: Tax expenses, AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2=Adjusted R^2 within the panel regression. Chow test (1960) is for the statistical difference in adjusted R^2 between Pre-and Post-adoption of IFRS from table lists p-values. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity

This could be possible because during the period most of the Nigerian investors had run away from the stock market leaving foreign investors (institutional) in the market. Also, the post-adoption fair value measurement might have effect on the value relevance of accounting increase during the IFRS period. The variables DP and TAX did not have any significant relationship with stock price during the pre-adoption period of IFRS, consistent with Kadri et al. (2010) for DP not being significant and Omokhudu and Ibadin (2015) for TAX in Nigeria. The AUD variable was positive with coefficients (Pre-IRFS and Post-

IFRS=0.4321 and 1.0247 in the pre-and post-adoption periods of IFRS respectively) at a significance level of 1% association with stock price. One interesting finding was the significant change for DP and TAX after IFRS adoption suggesting investors utilised the variables as a result of IFRS adoption.

The explanatory power of R^2 for the pre-adoption period was 25.44% and for the post-adoption period R^2 was 35.25%. The insignificant relationship of the variables DP and TAX before the IFRS could have resulted in the lower R^2 during the Pre-IFRS adoption. This means that NII and OI had better predictive power and were utilised more by investors during the period after the IFRS adoption because of higher coefficients. The higher R^2 after the IFRS presented an increase in the value relevance of accounting information after IFRS adoption for the stock price model. This shows the effect IFRS on the components of income statement. This does not support studies on the decline of value relevance of accounting information of earnings and ,earnings components such as Francis and Schipper (1999) and Brown et al. (1999) and Ahmed et al. (2013)that financial reporting quality after IFRS adoption generally decreases, particularly for countries that have stronger enforcement.

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The coefficient slope for the dummy($\beta_7 D$) variable result is positive (0.3421) at a significant level of 1%. This shows that the combining effect of pre-and post-adoption of IFRS has effect on the value relevance of accounting information among Nigerian firms. The coefficient on book value, net interest income, and audit for pooled data are significant and values are positives. Also, the coefficients for operating expenses, and depreciation, and tax are negative and values were significant.

Given that, the effect of IFRS can be reported on the value relevance of accounting information among Nigerian firms because of the changes or increase on book value coefficient by 0.1563(β_8), net interest income by 0.0677(β_9), operating income by 0.0465(β_{10}), and audit by 0.5926 (β_{13}) and the increase were positive. Also, an increase in depreciation coefficient by -0.0765(β_{11}), and tax expenses by -0.0399 (β_{12}) and the increase is negative as expected. This can be suggested that value relevance of accounting information has increased as a result of the effect of IFRS adoption among Nigerian firms. The explanatory power of the combined model had R^2 of 31.25% variance with stock price. This shown that all variables were associated with stock price for the pooled data, except. This finding is similar to the theory of Ohlson (1995) that components of net income should be positively and negatively related.

The Chow test was significantly positive F=17.87 at 1% level, suggesting IFRS has brought structural break in the relationship between market data and accounting measures.

This suggests there was a structural break in the relationship between stock price and accounting numbers as a result of IFRS adoption among Nigerian firms. Therefore, hypothesis four (H4) book value, net interest income, operating income, depreciation, and tax expenses provided more value relevance of accounting information is accepted for the price model.

Return Model

The stock return model regression for the pooled data in the Panel B Table 5.23 presented pre-and post-adoption periods of IFRS and pooled sample data. The variable NII provided positives coefficient of 0.0124 at Pre-IFRS adoption and 0.0469 for the Post-IFRS adoption at significant levels f 1% relationship with stock return.

The variable ΔNII had positive coefficients of 0.0143 at Pre-IFRS and 0.0591 at Post-IFRS at significant levels of 1% relationship with stock return. The variable OI presented positive coefficient 0.0212 at Pre-IFRS and 0.0554 for the Post-IFRS adoption at significant levels of 1% relationship with stock return. The ΔOI coefficient was positive for the Pre-IFRS (0.0222) and (0.0663) at the Post-IFRS adoption in relationship with stock return. The variable NII, ΔNII, OI, and ΔOI provided coefficient that are greater at Post-IFRS adoption, signifying that investors used the variable for stock valuation. This presents evidence of increase in value relevance after IFRS adoption.

The variable DP and ΔDP presented coefficient that was negative and insignificant at both Pre-IFRS and Post-IFRS with stock return model. This signifies that investors do not use the variables for stock valuation in both Pre-and Post-IFRS adoption. The variables TAX and ΔTAX had an insignificant relationship with stock return during the pre-adoption period of IFRS but had negative coefficients (Pre-IFRS=-0.0118 and Post-IFRS= -0.0197 respectively) at significance levels of a 1% association with stock return. This provides evidence of increasing value relevance of accounting information after IFRS adoption for TAX.

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The insignificance of other variables during the pre-adoption period could be related to the previous arguments that during the economic turmoil, and financial crisis, stock return is unsuitable. The decreased in value relevance has been noticed from the explanatory power (Pre-adoption=11.09% versus Post-adoption = 8.24) decrease in the Post-IFRS adoption.

Table 5.23
Selected Net Income and operating expenses-Hypothesis Four (H4)
Panel B: Return Regression Model 2D

$$RET_{it}^{SAS} = \alpha_0 + \beta_1 NII_{it}^{SAS} + \beta_2 \Delta NII_{it}^{SAS} + \beta_3 OI_{it}^{SAS} + \beta_4 \Delta OI_{it}^{SAS} + \beta_5 DP_{it}^{SAS} + \beta_6 \Delta DP_{it}^{SAS} + \beta_7 TAX_{it}^{SAS} + \beta_8 \Delta TAX_{it}^{SAS} + \beta_9 AUD_{it}^{SAS} + \mu_{it} \quad \text{Model 22}$$

$$RET_{it}^{IFRS} \alpha_0 + \beta_1 NII_{it}^{IFRS} + \beta_2 \Delta NII_{it}^{IFRS} + \beta_3 OI_{it}^{IFRS} + \beta_4 \Delta OI_{it}^{IFRS} + \beta_5 DP_{it}^{IFRS} + \beta_6 \Delta DP_{it}^{IFRS} + \beta_7 TAX_{it}^{IFRS} + \beta_8 \Delta TAX_{it}^{IFRS} + \beta_9 AUD_{it}^{IFRS} + \mu_{it} \quad \text{Model 23}$$

$$RET_{it}^{SAS+IFRS} = \alpha_0 + \beta_1 NII_{it}^{SAS+IFRS} + \beta_2 \Delta NII_{it}^{SAS+IFRS} + \beta_3 OI_{it}^{SAS+IFRS} + \beta_4 \Delta OI_{it}^{SAS+IFRS} + \beta_5 DP_{it}^{SAS\&IFRS} + \beta_6 \Delta DP_{it}^{SAS\&IFRS} + \beta_7 TAX_{it}^{SAS\&IFRS} + \beta_8 \Delta TAX_{it}^{SAS\&IFRS} + \beta_9 AUD_{it}^{SAS\&IFRS} + \beta_{10} D + \beta_{11} DNII_{it}^{SAS\&IFRS} + \beta_{12} D\Delta NII_{it}^{SAS\&IFRS} + \beta_{13} DOI_{it}^{SAS\&IFRS} + \beta_{14} D\Delta OI_{it}^{SAS\&IFRS} + \beta_{15} DDP_{it}^{SAS\&IFRS} + \beta_{16} D\Delta DP_{it}^{SAS\&IFRS} + \beta_{17} DTAX_{it}^{SAS\&IFRS} + \beta_{18} D\Delta TAX_{it}^{SAS\&IFRS} + \beta_{19} DAUD_{it}^{SAS\&IFRS} + \mu_{it} \quad \text{Model 24}$$

Return Model	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α_0	0.0273(2.1)**	0.0607(3.90)***	0.0334(2.85)***	
β_1	0.0124(3.20)***	0.0469(3.07)***	0.0124(3.20)***	1.00
β_2	0.0143(2.99)***	0.0591(2.99)***	0.0143(2.99)***	1.02
β_3	0.0212(4.05)***	0.0554(3.20)***	0.0212(4.05)***	1.03
β_4	0.0222(3.03)***	0.0663(4.22)***	0.0222(3.03)***	1.02
β_5	-0.0221(1.07)	-0.0604(1.01)	-0.0221(1.07)	1.00
β_6	-0.0111(0.88)	-0.0332(1.09)	-0.0111(0.88)	1.03
β_7	-0.0106(0.49)	-0.0118(-3.28)***	-0.0106(0.49)	1.01
β_8	-0.0204(1.09)	-0.0197(-2.95)**	-0.0204(1.09)	1.02
β_9	0.1871(2.60)**	0.3942(2.56)**	0.1871(2.60)**	1.00
β_{10}			**0.0211(1.40)**	
β_{11}			0.0345(3.05)***	
β_{12}			0.0448(3.01)***	
β_{13}			0.0342(3.45)***	
β_{14}			0.0441(3.10)***	
β_{15}			-0.0383(-3.05)***	
β_{16}			-0.0221(-1.00)	
β_{17}			-0.0123(-2.01)**	
β_{18}			-0.0401(-1.04)	
β_{19}			0.2071(2.97)***	
R-Squared	0.1109	0.0824	0.0725	
White test	Chi=0.000			
Chow test(1960)	F=7.45		0.534251	

Notes: ***significance 1%, **significance 5%, and * significance 10%.
Variable definitions for Table 5.20: RET = return of firm three months after the year end t. NII = Net interest income for firm i at the end of fiscal year t. ΔNII = Change in net interest income for firm i at the end of fiscal year t. OI = Operating expenses for firm i at the end of fiscal year t. ΔOI= Change in operating income for firm i at the end of fiscal year t. DP= Depreciation for firm i at the end of fiscal year t. ΔDP = Change in depreciation for firm i at the end of fiscal year t. TAX: Tax expenses DP = Depreciation for firm i at the end of fiscal year t. ΔTAX=Change in tax expenses for firm i at the end of fiscal year t. AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2=Adjusted R^2 within the panel regression. Chow test (1960) is for the statistical difference in adjusted R^2 between Pre-and Post-adoption of IFRS from table lists p-values. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity.

The coefficients for dummy (β_{10}D) variable for pooled data provided an insignificant effect on the increase in value relevance effect of IFRS among Nigerian firms. This shows that there is no change in value relevance as a result of IFRS adoption as the dummy does

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not have any significant relationship with stock return. However, an increase or change in value relevance have been reported from DNII, DΔNII, DOI, DΔ0I, DDP, DTAX and DAUD as a result of interaction with the dummy variable.

In contrast, the variable ΔTAX do not prove any significant increase. Given that, the effect of IFRS has been noticed because of the increase in coefficient for net interest income by 0.0345 (β_{11}), change in net interest income by 0.0448 (β_{12}), operating income by 0.0342 (β_{13}), change in operating income by 0.0441 (β_{14}) and audit by 0.2071 (β_{19}) that are positives and values are significant at 1% and 5% . The coefficients for depreciation by -0.0383 (β_{15}), tax expenses by -0.0123 (β_{17}) that are negatives and values are significant. The coefficients for change in depreciation and change in tax do not support any significant level of increase. It could be concluded that there is no effect of IFRS for change in depreciation and tax expenses.

The results could interpreted that, there is the effect of IFRS on value relevance of accounting information for the DNII, DΔNII,DOI, DΔ0I, DDP, DTAX and DAUD. However, the effect of IFRS for ΔDP and ΔTAX had not shown any effect of IFRS on the value relevance of accounting information among Nigerian firms.

The Chow test provided 7.45 that is insignificant. This findings means there is no structural break in the relationship between stock return and accounting numbers after switch to IFRS. If the coefficients of dummy variable significant can be interpreted as a pointer of increase in value relevance, regardless of their importance (Devalle, Onali and Magarini, 2010). This is consistent with the study of Dennis (2015) using different countries that financial reporting under IFRS could generate insignificant importance to the investors in term of value relevance incremental values. Also Sohaimi et al.

(2013) could not found any value relevance of financial reporting because of fair value as a result of IFRS adoption. Therefore hypothesis four under return model could not be supported.

Robustness Test for Non-Financial

The robustness test reported is for the net income and operating expenses to determine the robustness of the data and model in Table 5.24.

Table 5.24
Robustness Test for Non-financial firms
Panel A: Price Regression Model 2

$SP_{it}^{SAS} = \alpha_0 + \beta_1 BV_{it}^{SAS} + \beta_2 NII_{it}^{SAS} + \beta_3 OI_{it}^{SAS} + \beta_4 DP_{it}^{SAS} + \beta_5 TAX_{it}^{SAS} + \beta_6 AUD_{it}^{SAS} + \mu_{it}$ Model 19

$SP_{it}^{IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 NII_{it}^{IFRS} + \beta_3 OI_{it}^{IFRS} + \beta_4 DP_{it}^{IFRS} + \beta_5 TAX_{it}^{IFRS} + \beta_6 AUD_{it}^{IFRS} + \mu_{it}$ Model 20

$SP_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 BV_{it}^{ISA\&FRS} + \beta_2 NII_{it}^{SAS\&IFRS} + \beta_3 OI_{it}^{SAS\&IFRS} + \beta_4 DP_{it}^{SA\&+IFRS} + \beta_5 TAX_{it}^{SAS\&IFRS} + \beta_6 AUD_{it}^{SAS\&IFRS} + \beta_7 D + \beta_8 DBV_{it}^{SAS\&IFRS} + \beta_9 DNII_{it}^{SAS\&IFRS} + \beta_{10} DOI_{it}^{SAS\&IFRS} + \beta_{11} DDP_{it}^{SAS+IFRS} + \beta_{12} DTAX_{it}^{SAS+IFRS} + \beta_{13} DAUD_{it}^{SAS+IFRS} \mu_{it}$ Model 21

Return Model 1	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α	0.0221(3.21)***	0.0644(2.99)***	0.0322(1.99)*	
β_1	0.0624(3.45)***	0.1327(3.98)***	0.0624(3.45)***	1.00
β_2	0.0382(3.08)***	0.1114(3.20)***	0.0382(3.08)***	1.01
β_3	0.0228(3.04)***	0.0627(3.09)***	0.0228(3.04)***	1.02
β_4	-0.0762(-1.04	-0.1587(3.67)***	-0.0762(-1.06)	1.02
β_5	-0.0530(-0.24)	-0.1252(4.00)****	-0.0530(-0.24)	1.03
β_6	0.3310(3.14)***	0.8591(3.66)***	0.3310(3.14)***	
β_7			**0.3254(2.899)****	
β_8			0.0703(3.50)**	
β_9			0.0732(2.60.)**	
β_{10}			0.0399(2.34)**	
β_{11}			-0.0825(4.10)***	
β_{12}			-0.0722(2.96)***	
β_{13}			0.5281(3.09)***	
R-Squared	0.1440	0.2690	0.1820	
White test	Chi=0.0004			
Chow test(1960)	F=19.45		P=0.00022	

Notes: *** significance 1%, ** significance 5% and * significance 10%.
variable definitions for Table 15: SP= Share price of firm three months after the year end t. DP= depreciation per share for firm i at the end of fiscal year t. TE= Tax expenses for firm i at the end of fiscal year t AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2 = Adjusted R^2 within the panel regression. The Chow test (1960) is for the statistical difference in adjusted R^2 between Pre-and Post-adoption of IFRS from table lists p-values. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity.

Table 5.25
Robust Test Non-Financial Firms
Return Regression Model

$RET_{it}^{SAS}= \quad \alpha_0 + \beta_1 NII_{it}^{SAS} + \beta_2 \Delta\text{NII}_{it}^{SAS} + \beta_3 OI_{it}^{SAS} + \beta_4 \Delta\text{OI}_{it}^{SAS} + \beta_5 DP_{it}^{SAS} + \beta_6 \Delta DP_{it}^{SAS} + \beta_7 TAX_{it}^{SAS} + \beta_8 \Delta\text{TAX}_{it}^{SAS} + \beta_9 AUD_{it}^{SAS} + \mu_{it}$ Model 22

$RET_{it}^{IFRS}=$
$\alpha_0 + \beta_1 NII_{it}^{IFRS} + \beta_2 \Delta NII_{it}^{IFRS} + \beta_3 OI_{it}^{IFRS} + \beta_4 \Delta OI_{it}^{IFRS} + \beta_5 DP_{it}^{IFRS} + \beta_6 \Delta DP_{it}^{IFRS} + \beta_7 TAX_{it}^{IFRS} + \beta_8 \Delta TAX_{it}^{IFRS} + \beta_9 AUD_{it}^{IFRS} + \mu_{it}$ Model 23

$RET_{it}^{SAS+IFRS}= \quad \alpha_0 + \beta_1 NII_{it}^{SAS+IFRS} + \beta_2 \Delta\text{NII}_{it}^{SAS+IFRS} + \beta_3 OI_{it}^{SAS+IFRS} + \beta_4 \Delta\text{OI}_{it}^{SAS+IFRS} + \beta_5 DP_{it}^{SAS\&IFRS} + \beta_6 \Delta\text{DP}_{it}^{SAS\&IFRS} + \beta_7 TAX_{it}^{SAS\&IFRS} + \beta_8 \Delta TAX_{it}^{SAS\&IFRS} + \beta_9 AUD_{it}^{SAS\&IFRS} + \beta_{10} D + \beta_{11} DNII_{it}^{SAS\&IFRS} + \beta_{12} D\Delta\text{NII}_{it}^{SAS\&IFRS} + \beta_{13} DOI_{it}^{SAS\&IFRS} + \beta_{14} D\Delta OI_{it}^{SAS\&IFRS} + \beta_{15} DDP_{it}^{SAS\&IFRS} + \beta_{16} D\Delta DP_{it}^{SAS\&IFRS} + \beta_{17} DTAX_{it}^{SAS\&IFRS} + \beta_{18} D\Delta TAX_{it}^{SAS\&IFRS} + \beta_{19} DAUD_{it}^{SAS\&IFRS} + \mu_{it}$
Model 24

Return Model	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α_0	0.0010(2.1)*	0.3051(2.87)***	0.0334(2.85)***	
β_1	0.0420(3.01)***	0.0067(3.05)**	0.0420(3.01)***	1.00
β_2	0.0350(2.25)**	0.0038(2.80)***	0.0350(2.25)**	1.01
β_3	0.0644(2.41)**	0.0067(3.00)***	0.0644(2.41)**	1.02
β_4	-0.0431(-0.55)	0.0646(2.99)***	-0.0431(-0.55)	1.03
β_5	-0.0778(-0.54)	-0.0029(1.00)	-0.0778(-0.54)	1.01
β_6	-0.0366(0.19)	-0.0265(1.01)	-0.0366(0.19)	1.04
β_7	-0.2055(-0.92)	-0.0024(-2.00)**	-0.2055(-0.92)	1.02
β_8	0.5501(1.25)**	-0.0021(-2.02)**	0.5501(2.25)**	1.04
β_9	0.2314(3.06)***	0.0561(2.56)**	0.2314(3.06)***	1.04
β_{10}			**0.0339(1.06)**	
β_{11}			0.0705(3.05)***	
β_{12}			0.2201(2.08)**	
β_{13}			0.0552(2.95)**	
β_{14}			-0.1065(2.01)*	
β_{15}			-0.0898(2.35)**	
β_{16}			-0.0997(-1.04)	
β_{17}			-0.613(3.01)***	
β_{18}			0.6410(2.555)**	
β_{19}			0.7621(2.27)**	
R-Squared	0.1089	0.1233	0.1187	
White test	Chi=0.000			
Chow test(1960)	F=11.78		P=0.15621	

Notes: *** significance, 1% ** significance 5%, and * significance 10%.
Variable definitions for Table 15: RET = return of firm three months after the year end t. NII = Net interest income for firm i at the end of fiscal year t. ΔNII = Change in net interest income for firm i at the end of fiscal year t. OI = Operating expenses for firm i at the end of fiscal year t. ΔOI = Change in operating income for firm i at the end of fiscal year t. DP = Depreciation for firm i at the end of fiscal year t. ΔDP = Change in depreciation for firm i at the end of fiscal year t. TAX: Tax expenses DP = Depreciation for firm i at the end of fiscal year t. ΔTAX = Change in tax expenses for firm i at the end of fiscal year t. AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2 = Adjusted R^2 within the panel regression. Chow test (1960) is for the statistical difference in adjusted R^2 between Pre-and Post-adoption of IFRS from table lists p-values. All p-values are estimated based on the white's (1980) corrected error for heteroscedasticity.

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The estimated coefficients provided for the sub-samples were significantly like those of the full samples, pre-and post-adoption of IFRS in terms of coefficients, significances and R^2. Therefore, the findings were robust enough.

The increase in value relevance under price model affirms the decision that financial institutions have no effect on the value relevance of financial reporting. The findings are consistent with Okafor et al. (2016). Therefore, it can be reported that the findings were robust enough. The Chow test (1960) for the pooled sample estimation of sub-sample did provide statistical significance difference between stock price and accounting numbers but provides no statistical significance difference under return model. Therefore, the conclusion for increase in value relevance could not be altered for non-financial firms under stock price. However, under stock return model there are no significance differences between the Pre-IFRS and Post-IFRS.

5.5.5 Regression Analysis for Book Value and Accruals

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Price Model

Table 5.26 presented findings comparing the book value and accruals from operations for the pre-and post-adoption periods of IFRS. The related coefficients and p-values, adjusted R^2s for models 3A, Panel A stock prices and Panel B for stock return model representing pooled data, pre-and post-adoption of IFRS. In addition, White's (1980) test, VIF and the Chow test (1960) for pooled sample estimations for the coefficients structural break down

Table 5.26
Book value and Accruals Hypothesis Five (H5)

Panel A: Price Regression Model 3

$SP_{it}^{SAS} = \alpha_0 + \beta_1 BV_{it}^{SAS} + \beta_2 ACC_{it}^{SAS} + \beta_3 AUD_{it}^{SAS} \mu_{it}$----------**Model 25**

$SP_{it}^{IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 ACC_{it}^{IFRS} + \beta_3 AUD_{it}^{IFRS} \mu_{it}$----------**Model 26**

$SP_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 BV_{it}^{SAS+IFRS} + \beta_2 ACC_{it}^{SAS+IFRS} + \beta_3 AUD_{it}^{SAS+IFRS} + \beta_4 D_{it} + \beta_5 DBVit^{SAS+IFRS} + \beta_6 DAC\text{-}C_{it}^{SAS+IFRS} + \beta_7 DAUD_{it}^{SAS+IFRS} + \mu_{it}$ ---------- **Model 27**

Price Model 1	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α	0.3256(2.34)**	0.5937(2.99)***	0.5110(2.34)**	
β_1	0.0246(4.00)***	0.0678(3.05)***	0.0246(4.00)***	1.00
β_2	0.0342(3.40)***	0.0876(3.66)***	0.0342(3.40)***	1.03
β_3	0.2654(3.00)***	0.6642(3.27)***	0.2654(3.00)***	1.05
β_4			**0.3763(3.09)*** **	
β_5			0.0432(3.25)***	
β_6			0.0534(3.08)***	
β_7			0.3987(3.01)***	
R-Squared	0.4890	0.5533	0.5022	
White test	Chi=0.00255			
Chow test(1960)	F=13.08		P=0.0001	

Notes: *** significance 1%, ** significance 5%, and * significance 10%.

Variable definitions for Table 15: SP = Share price of firm three months after the year end t. BVPS = Book value per share of firm i at the end of fiscal year t. ACC = Accruals (earnings – cash flows) for firm i at the end of fiscal year t. AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2= Adjusted R^2 within the panel regression. The Chow test (1960) is the statistical difference in adjusted R^2 between Pre-and Post-adoption of IFRS from table lists p-values. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity

The result for the BVPS provided positive coefficient in the regressions for both pre-and post-IFRS adoption (Pre-IFRS = 0.0246 at a significance level of 1% and Post-IFR = 0.0678 at a significance of 1%) relationship with stock price. The result has shown an increase in value relevance of accounting information after IFRS adoption. This is consistent with the Kargin (2013) that book value increase in value relevance as a result of IFRS adoption. The variable ACC presented positive coefficient (Pre-IFRS = 0.0342 and Post-IFRS = 0.0876 at significance levels of 1% respectively) relationship with stock price regression. The increase in coefficient after IFRS adoption signifies increase in value relevance. This findings is consistent with Bogstrand and Larson(2012) that accruals provided more value relevance after IFRS adoption

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The AUD variable showed significant relationship with stock price at the Pre-IFRS period with coefficient 0.2654 at 1% and at the Post-IFRS, the coefficient was positive 0.6642 at a significance level of a 1% relationship with stock price.

The combined value relevance of BVPS and ACC was greater after the IFRS adoption. Therefore, there is an increase in value relevance after IFRS adoption. The findings is consistent with Sarquis and August (2015) and Bogstrand and Larson(2012), that book value and accruals significantly increase after the IFRS adoption.

The result of the dummy variable $\beta_4(D)$ provided a coefficient of 0.3763 that is significant at 1% level. This suggested that combined effect of IFRS for both pre-and post-IFRS adoption. The results from the coefficients DBVS, DACC and DAUD have shown an increase in coefficients that are positives with statistical significant values(β_5=0.0432, β_6 =0.0534, β_7=0.3987) at significant levels of 1% relationship with stock price. This result can be interpreted that IFRS has effect on the DBVS, DACC and DAUD. The combined explanatory variables from R^2 explained 50.22% of the variance with the stock price. The Chow test (1960) for the pooled sample suggested statistical significant effect of IFRS on the value relevance of accounting information (F = 13.08 at significant P-value = 0.0001) at a significant level of 1%. This suggests a structural break occurred in the relationship between stock price and book value and accruals as a result of the effect of IFRS among Nigerian firms. Thus, hypothesis (H5) for the increase in value relevance of accounting information after IFRS adoption was supported for price model.

The indicated book value increased due to the increase in coefficients after the adoption could possibly be because investors relied more on book value than accruals and cash

flows in investment decisions. The model is interesting in terms of the increase of coefficients in book value concerning stock price. Hence, use of earnings information at the pre-adoption for investment decision could be the reason for the increase in value relevance after IFRS adoption. This statement is collaborated by Li and Holly (2016) that IFRS adoption increases the tendency of providing guidance to earnings by the managers.

Return Model

The return regression model in the Table 5.27 reflected the relationship between market capitalisation in return and the change in BV and change in ACC. The results displayed are after running the return regression in model 25 return or change in market capitalisations. The regression was run for the pre-and post-IFRS and full sample periods using different models.

The pre-adoption period of IFRS presented EARN with the coefficient 0.0365 and Post-IFRS coefficient 0.1022 at significant levels of 1% relationship with stock return. The regression results ΔEARN, presented Pre-IFRS coefficients of 0.0333 and Post-IFRS 0.1098 coefficients at significant levels of 1% relationship with stock return respectively. The variable ACC provided coefficients (Pre-IFRS=0.0321 and Post-IFRS=0.0846) at significant levels of 1% relationship with stock return and change ΔACC coefficients (Pre-IFRS=0.0452 and Post-IFRS=0.1127at significant levels of 1% relationship with stock return.

Table 5.27
Earnings and Accruals Hypothesis Five (H5)
Panel B: Return regression

$RET_{it}^{SAS} = \alpha_0 + \beta_1 EARN_{it}^{SAS} + \beta_2 \Delta EARN_{it}^{SAS} + \beta_3 ACC_{it}^{SAS} + \beta_4 \Delta ACC_{it}^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it}$---------Model 28

$RET_{it}^{IFRS} = \alpha_0 + \beta_1 EARN_{it}^{IFRS} + \beta_2 \Delta EARN_{it}^{IFRS} + \beta_3 ACC_{it}^{IFRS} + \beta_4 \Delta ACC_{it}^{IFRS} + \beta_5 AUD_{it}^{IFRS} + \mu$----- Model 29

$RET_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 EARN_{it}^{SAS+IFRS} + \beta_2 \Delta EARN_{it}^{SAS+IFRS} + \beta_3 ACC_{it}^{SAS+IFRS} + \beta_4 \Delta ACC_{it}^{SAS+IFRS} + \beta_5 AUD_{it}^{SAS+IFRS} + \beta_6 D + \beta_7 DEARN_{it}^{SAS+IFRS} + \beta_8 D\Delta EARN_{it}^{SAS+IFRS} + \beta_9 DACC_{it}^{SAS+IFRS} + \beta_{10} D\Delta ACC_{it}^{SAS+IFRS} + \beta_{11} DAUD_{it}^{SAS+IFRS} + \mu$- Model 30

Return Model	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α	0.2221(1.98)**	0.2798(2.78)**	0.0587(3.02)**	
β_1	0.0365(3.31)***	0.1022(5.24)***	0.0365(3.31)***	1.00
β_2	0.0333(3.08)***	0.1098(2.98)***	0.0333(3.08)***	1.10
β_3	0.0321(3.22)***	0.0846(2.59)**	0.0321(3.22)***	1.20
β_4	0.0452(2.87)**	0.1127(2.35**	0.0452(2.87)**	1.10
β_5	0.0399(2.99)***	0.1182(2.45)**	0.0399(2.99)***	1.00
β_6			**0.3241(3.07)*** **	
β_7			0.0657(2.90)***	
β_8			0.0765(3.51)***	
β_9			0.0525(3.01)***	
β_{10}			0.0675(3.05)***	
β_{11}			0.0783(3.06)***	
R-Squared	0.0823	0.1392	0.1003	
White test	Chi=0.001			
Chow test(1960)	F= 18.60		P=0.0090122	

Notes: *** significance 1%, **significance 5%, and * significance 10%.
Variable definitions for Table 5.22: RET = return of firm three months after the year end t. E = earnings for firm i at the end of fiscal year t. ΔE_{iit} = Change in Earnings for firm i at the end of fiscal year t. ACC = Accruals for firm i at the end of fiscal year t. ΔACC_{iit} = Change in accruals for firm i at the end of fiscal year t,AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2 = Adjusted R^2 within the panel regression. The Chow test (1960) is for the statistical difference in adjusted R^2 between Pre-and Post-adoption of IFRS from table lists p-values. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity

The variable AUD were related positively with stock return having coefficient of 0.0399 at Pre-IFRS and 0.1182 at Post-IFRS at significance level of 5%. The explanatory power of variance of the R^2 for the Pre-IFRS= 8.23% and Post-IFRS 13.92% in explaining variation in stock return.

In the post-adoption of IFRS, there are signs in the regression that the value relevance of accounting information increased by both the coefficient and R^2. All the variables coefficients after the IFRS adoption present a greater coefficient after IFRS adoption. This shows that there is an increase in value relevance after IFRS adoption from the increased coefficients.

The pooled data dummy variable (β_6D) coefficient 0.0.3241 was positive at a significant level of 1%. This shows that combined effect of pre-and post-adoption of IFRS has effect on the value relevance of accounting information. The slope coefficients for DEARN, D ΔEARN, DACC, DΔACC and DAUD present change or effect of IFRS in the value relevance of accounting information among Nigerian firms. Given that, it can be reported that there is the effect of IFRS on the value relevance of accounting information because of the increase in earnings by 0.0657 (β_7), change in earnings by 0.0765 (β_8), accruals by 0.0525(β9), change in accruals by 0.0765 (β_{10}), and audit by 0.0783(β_{11}) and the effect are positives with a significant levels of 1%. The combined explanatory power presented 10.03% variance with the stock return from their coefficients.

The overall result indicated an increase in value relevance of after IFRS adoption. The Chow test (1960) pooled sample estimation was statistically significant at 1% (return regression value relevance, F= 18.60 at a significant level, P-value = 0.0090). The findings suggested a structural break between stock return and accounting numbers because of IFRS adoption. Thus, hypothesis five (H5), which posited that stock return that book value, and accruals would contain more value relevance after IFRS adoption, cannot be rejected.

This finding has been consistent with Collins, Maydew, and Weiss (1997) who found that the value relevance of earnings information did not decline and Sellami and Fakhfakh 2013) earnings quality increased after IFRS adoption. However, not consistent with Francis and Schipper (1999) who found that the value relevance of accounting information has declined over the periods.

Robustness Test for Non-Financial

Table 5.28 is for robustness tests conducted to determine whether the effect of IFRS could provide different results than the full sample. Several studies conducted robustness tests using different methods such as stock price and stock return because of econometric issues (Sami & Zhou, 2004), using different regression techniques (Beisland, 2011). The concern for this study was that, the effect of IFRS on the value relevance could be because of the presence of financial firms after the financial crisis.

The estimated coefficients provided for the sub-samples were significantly like those of the full samples, pre-and post-adoption of IFRS in term of coefficients, significances and R^2s. The result of the findings for the price regression model presented an increased in value relevance in for the IFRS full samples.

This method is consistent with the Okafor et al. (2016) by conducting reobust test using non-fianncial firms and Fuensanta et al. (2016) by excluding financial firms from their studies to find value relevance effect of non-financial firms, because of having more regaltions. The estimated coefficients provided for the sub-samples were significantly like those of Therefore, to understand whether the increasing value relevance after IFRS adoption could be explained as a result of financial firm increasing value relevance immediately after financial crisis not because of the effect of IFRS, financial firms were eliminated and run for only the non-financial firms. The number of financial firms for the study was 54 with 15 banks and 39 non-banks financial institutions listed in the Nigerian capital market as at the period of study.

All coefficients presented higher explanatory power under IFRS for both stock price and return models. Therefore, it can be reported that the findings were robust enough. The

Table 5.28
Robustness Test for Non-financials

Panel A: Price regression Hypothesis Five (H5)

$SP_{it}^{SAS} = \alpha_0 + \beta_1 BV_{it}^{SAS} + \beta_2 ACC_{it}^{SAS} + \beta_3 AUD_{it}^{SAS} \mu_{it}$----------**Model 25**

$SP_{it}^{IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 ACC_{it}^{IFRS} + \beta_3 AUD_{it}^{IFRS} \mu_{it}$----------**Model 26**

$SP_{it}^{SAS\&IFRS}$=α_0+β_1BV$_{it}^{SAS+IFRS}$+β_2ACC$_{it}^{SAS+IFRS}$+β_3AUD$_{it}^{SAS+IFRS}$+β_4D$_{it}$+β_5DBVit$^{SAS+IFRS}$+β_6DAC-C$_{it}^{SAS+IFRS}$+β_7DAUD$_{it}^{SAS+IFRS}$ +μ_{it} ---------- **Model 27**

Price Model 1	Pre-adoption	Post-adoption	Pooled data	Mean VIF
A	0.0135(1.99)*	0.2245(2.98)***	0.2110(3.21)***	
β_1	0.0234(3.99)***	0.0776(3.35)***	0.0234(3.99)***	1.00
β_2	0.0454(2.99)**	0.1305(3.04)***	0.0454(2.99)**	1.03
β_3	0.2826(3.20)***	0.5878(3.06)***	0.2826(3.20)***	1.05
β_4			**0.3365(3.29)*****	
β_5			0.0542(3.04)***	
β_6			0.0851(3.54)***	
β_7			0.3052(3.01)***	
R-Squared	0.3822	0.4633	0.4011	
White test	Chi=0.00098			
Chow test(1960)	F=11.98		P=0.000	

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Panel B: Return regression Hypothesis Five (H5) 0.2010(3.61)***

$RET_{it}^{SAS} = \alpha_0 + \beta_1 EARN_{it}^{SAS} + \beta_2 \Delta EARN_{it}^{SAS} + \beta_3 ACC_{it}^{SAS} + \beta_4 \Delta ACC_{it}^{SAS} + \beta_5 AUD_{it}^{SAS} + \mu_{it}$---------Model 28

$RET_{it}^{IFRS} = \alpha_0 + \beta_1 EARN_{it}^{IFRS} + \beta_2 \Delta EARN_{it}^{IFRS} + \beta_3 ACC_{it}^{IFRS} + \beta_4 \Delta ACC_{it}^{IFRS} + \beta_5 AUD_{it}^{IFRS} + \mu$----- Model 29

$RET_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 EARN_{it}^{SAS+IFRS} + \beta_2 \Delta EARN_{it}^{SAS+IFRS} + \beta_3 ACC_{it}^{SAS+IFRS} + \beta_4 \Delta ACC_{it}^{SAS+IFRS} + \beta_5 AUD_{it}^{SAS+IFRS} + \beta_6 D + \beta_7 DEARN_{it}^{SAS+IFRS} + \beta_8 D\Delta EARN_{it}^{SAS+IFRS} + \beta_9 DACC_{it}^{SAS+IFRS} + \beta_{10} D\Delta ACC_{it}^{SAS+IFRS} + \beta_{11} DAUD_{it}^{SAS+IFRS} + \mu$- Model 30

Return Model	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α	0.1221(1.88)**	0.2533(2.65)**	0.1312(2.32)**	
β_1	0.2010(3.61)***	0.5067(2.24)**	0.2010(3.61)***	1.00
β_2	0.0325(4.48)***	0.0737(2.68)**	0.0325(4.48)***	1.10
β_3	0.0441(4.33)***	0.0966(2.50)**	0.0441(4.33)***	1.20
β_4	0.0321(1.87)*	0.0845(2.65**	0.0321(1.87)*	1.10
β_5	0.0314(2.98)***	0.1037(2.55)**	0.0314(2.98)***	1.00
β_6			**0.3223(3.87)*** **	
β_7			0.3057(2.90)***	
β_8			0.0412(4.5)***	
β_9			0.0525(3.01)***	
β_{10}			0.0524(2.05)*	
β_{11}			0.0723(3.06)***	
R-Squared	0.0523	0.0921	0.0723	
White test	Chi=0.001			
Chow test(1960)	F==18.23		P=0.000012	

Variable definitions for Table 5.22: RET = return of firm three months after the year end t. BV = Book value for firm i at the end of fiscal year t. ΔBV_{iit} = Change in book value for firm i at the end of fiscal year t. ACC = Accruals for firm i at the end of fiscal year t. ΔACC_{iit} = Change in accruals for firm i at the end of fiscal year t. AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2 = Adjusted R^2 within the panel regression. The Chow test (1960) is for the structural break between Pre-and Post-adoption of IFRS from table lists p-values. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity

Chow test (1960) for the sub-sample did provide a structural break in the relationship between market value and assets and liabilities as a result of adoption of IFRS in Nigeria. Therefore, the conclusion for change in value relevance could not be altered for non-financial firms. The increased value relevance does not change the decision that financial institutions have any effect on the value relevance of financial reporting. The findings are consistent with (Okafor et al., 2016).

Therefore, it can be reported that the findings were robust enough. The Chow test (1960) for the pooled sample provide evidence of structural break between the relationship between stock price and return models for sub-sample after the adoption of IFRS. Therefore, the conclusion for increased in value relevance could not be altered for non-financial firms.

The general results provided an increased coefficient and R^2 for stock price and return model after IFRS adoption for the full samples and non-financial firms, when financial firms were removed from the regression models. The empirical evidence of the increased in value relevance after IFRS adoption is noticed for full samples and non-financial firms' under-price model and return model.

5.5.6 Regression Analysis of Book Value, Earnings and Dividends

This Section discussed the analysis of book value, earnings and dividends relationship with both stock price and return models.

Price Model

Panel A and Panel B of Table 5.29 provided regression results of book value, earnings and dividends for stock price and return models respectively. The price regression model coefficients for the variables BVPS, EPS, DIV and AUD had positive coefficients. The Pre-IFRS coefficients for BVPS were 0.0576 lower than Post-IFRS coefficients of 0.3453 at significant levels of 1% relationship with stock price. The variable EPS provided coefficient 0.0271 at the Pre-IFRS adoption and 0.2924 at Post-IFRS adoption at significant level of 1% relationship with stock price. The result of the variable coefficients suggested an increase in value relevance from Pre-IFRS to Post-IFRS. These indicated that Nigerian firms provided reliable information to the market and hence, reported the coefficient significance in the market value of those firms.

The variable Dividends did not support any significant relationship with stock price during the pre-adoption period, consistent with Al-Hares et al. (2012), in contrast, during the post-

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adoption had a positive coefficient of 0.0695 at a significance level of a 1% relationship with stock price.

Table 5.29
Book Value, Earnings and Dividends Hypothesis (H6)
Panel A: Price Regression Model 4

$SP_{it}^{SAS} = \alpha_0 + \beta_1 BV_{it}^{SAS} + \beta_2 EPS_{it}^{SAS} \beta_3 DIV_{it}^{SAS} + \beta_4 AUD_{it}^{SAS} + \mu_{it}$----------Model 31

$SP_{it}^{IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 EPS_{it}^{IFRS} + \beta_3 DIV_{it}^{IFRS} + \beta_4 AUD_{it}^{IFRS} + \mu_{it}$----Model 32

$SP_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 BV_{it}^{SAS\&IFRS} + \beta_2 EP_{it}^{SAS\&IFRS} + \beta_3 DIV_{it}^{SAS\&IFRS} + \beta_4 AUD_{it}^{SAS\&IFRS} + \beta_5 D + \beta_6 DBV_{it}^{SAS\&IFRS} + \beta_7 DEPS_{it}^{SAS\&IFRS} + \beta_8 DDIV_{it}^{SAS\&IFRS} + \beta_9 DAUD_{it}^{SAS\&IFRS} \mu_{it}$ Model 33

Price Model 1	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α	0.0227(4.17)***	0.5783(2.99)**	0.556(4.00)***	
β_1	0.0576(3.15)***	0.3453(3.00)***	0.0576(3.15)***	1.03
β_2	0.0271(3.11)***	0.2924(3.50)***	0.0271(3.11)***	1.05
β_3	0.0243(1.00)	0.0695(3.11)***	0.0243(1.00)	1.00
β_4	0.0155(2.74)**	0.0509(3.02)***	0.0155(2.74)**	1.04
β_5			**0.4542(4.89)*** **	
β_6			0.2877(2.99)***	
β_7			0.2653(3.00)***	
β_8			0.0452(4.20)***	
β_9			0.0354(3.99)***	
R-Squared	0.3420	0.3890	0.3420	
White test	Chi=0.0030			
Chow test(1960)	F=18.37		P=0.00654	

Notes: *** significance 1%, **significance 5%, and * significance 10%.
Variable definitions for Table 5.22: SP = Share price of firm three months after the year end t. $BVPS_{it}$ = Book value per share of firm i at the end of fiscal year t. EPS_{it} = Earnings per share for firm i at the end of fiscal year t. DIV_{it} = Dividends per share for firm i at the end of fiscal year t. AUD_{it} = Auditor is the dummy variable for firms that use Big 4 audit firms and 0 otherwise for firm i at the end of fiscal year t. β = Coefficient of the explanatory variables. R^2 = Adjusted R^2 within the panel regression. The Chow test (1960) is for the structural break between Pre-and Post-adoption of IFRS from table lists p-values. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity.

This suggested an increase in value relevance after IFRS adoption for DIV because of significant coefficients. This signified that investors utilised DIV in stock valuation after IFRS adoption.

The AUD variable presented coefficients that were higher after IFRS adoption (Pre-IFRS=0.0155 and Post-IFRS=0.0509) at significant levels of 1% relationship with stock price. The R^2 for the Pre-IFRS adoption (34.20%) was lower than the post-IFRS (38.90%) in explaining stock variation with stock price. The increase in coefficient after IFRS adoption signifies an increase in value relevance of accounting information (Kargin, 2013).

The dummy variable ($\beta_5 D$) (0.4542) was significant at 1% level, suggesting value relevance of the combining pre-and post-IFRS adoption. The coefficient book value, earnings per share and dividend per shares have shown an increase in coefficients respectively. Given that, it can reported that, there is an effect of IFRS on the value relevance of accounting information among Nigerian firms. This is because the coefficients for variables DBV increased to 0.2877(β_6), DEPS by 0.2653 (β_7), DDIV by 0.0452($\beta_8 D$), and audit by (0.0354) (β_9) are positives and values are significant at 1% levels respectively. The combined effect of R^2 for the period presented 34.20% variation with stock price

The findings can be interpreted that, IFRS has effect on the value relevance of accounting information among Nigerian firms. The Chow test (1960) for the pooled sample is statistically significant (value relevance, F = 18.37 at significant level p-value = 0.00654) at 1% level. This suggested a structural break exist in the relationship between stock price and BV, E and DIV. Therefore, the hypothesis (H6) for more value relevance of book value, earnings and dividend after IFRS adoption is supported.

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Return Model

The return regression reflects the relationships between change in market capitalisation and earnings and dividends. Table 5.30 displayed regressions result for pooled data, pre- and post-adoption of IFRS.

The Pre-IFRS adoption presented EARN coefficient with 0.2104 lower than Post-IFRS adoption coefficient of 0.5258 at significant levels of 1% relationship with stock return. The variable ΔEARN presented positives coefficients (Pre-IFRS=0.0204 and Post-IFRS=2704) at a significant levels of 1% relationship with stock return. The EARN and ΔEARN variables presented coefficients that were lower after IFRS adoption. The increase

in value relevance can be reported as a result of higher coefficient after IFRS adoption. The variable DIV coefficients were positives (Pre-IFRS=0.2020 and Post-IFRS=0.5032) at significant levels of 1% relationship with stock return. The variable ΔDIV was also positive with coefficients (Pre-IFRS=0.2015 and Post-IFRS=0.4208) at a significant levels of 1% relationship with stock return. The variable AUD provided a positive relationship with stock return at both Pre-IFRS=0.3223 and Post-IFRS=0.7346 and both significant at 1% level.

The increase in coefficients from Pre-IFRS to Post-IFRS suggested an increase in value relevance after the adoption of IFRS. This is consistent with Kargin (2013) and Tsalavovas,a Andres and Evans (2012). The R^2 for the pre-adoption of IFRS present a lower explanatory power than post-IFRS adoption (pre-adoption=9.56% and post-IFRS=13.51%) suggesting higher value relevance after IFRS adoption, consistent with Barth, Landmans and Evans (1996).

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Table 5.30
Earnings and Dividend Hypothesis Six (H6)
Panel B: Return Regression

$RET_{it}^{SAS} = \alpha_0 + \beta_1 EARN_{it}^{SAS} + \beta_2 \Delta EARN_{it}^{SAS} + \beta_3 DIV_{it}^{SAS} + \beta_4 \Delta DIV_{it}^{SAS} \beta_5 AUD_{it}^{SAS} + \mu_{it}$- Model 34

$RET_{it}^{IFRS} = \alpha_0 + \beta_1 EARN_{it}^{IFRS} + \beta_2 \Delta EARN_{it}^{IFRS} + \beta_3 DIV_{it}^{IFRS} + \beta_4 \Delta DIV_{it}^{IFRS} + AUD_{it}^{IFRS} \mu_{it}$ Model 35

$RET_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 EARN_{it}^{SAS\&IFRS} + \beta_2 \Delta EARN_{it}^{SAS\&IFRS} + \beta_3 DIV_{it}^{SAS\&IFRS} + \beta_4 DIV_{it}^{SAS\&FRS} + \beta_5 AUD_{it}^{SAS\&IFRS} + \beta_6 D + \beta_7 DEARN_{it}^{SAS\&IFRS} + \beta_8 D\Delta EARN_{it}^{SAS\&IFRS} + \beta_9 DDIV_{it}^{SAS\&IFRS} + \beta_{10} D\Delta DIV_{it}^{SAS\&IFRS} + \beta_{11} DAUD_{it}^{SAS\&IFRS} \mu_{it}$
Model 36

Return Model 1	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α_0	0.0260(3.63)***	0.3081(3.28)***	0.2821(3.02)***	
β_1	0.2104(2.55)***	0.5258(2.77)**	0.2104(2.55)***	1.02
β_2	0.0204(4.32)***	0.2704(4.03)***	0.0204(4.32)***	1.04
β_3	0.2020(2.29)**	0.5032(2.99)***	0.2020(2.29)**	100
β_4	0.2015(3.38)***	0.4208(3.99)***	0.2015(3.38)***	1.02
β_5	0.3223(3.12)***	0.7346(2.43)**	0.3223(3.12)***	1.00
β_6			**0.3425(3.09)*** **	
β_7			0.3154(3.30)***	
β_8			0.2500(3.09)***	
β_9			0.3012(1.56)	
β_{10}			0.2193(1.04)	
β_{11}			0.4123(3.06)***	
R-Squared	0.0956	0.1351	0.1051	
White test	Chi=0.001			
Chow test(1960)	F=14.30		P=0.00670	

Notes: *** significance 1%, ** significance 5%, and * significance 10%
Variable definitions for Table 15: RET = return of firm three months after the year end t. EARN = Earnings for firm i at the end of fiscal year t. $\Delta EARN_{iit}$ = Change in earnings for firm i at the end of fiscal year t. DIV = Dividends for firm i at the end of fiscal year t. ΔDIV_{iit}= Change in dividends for firm i at the end of fiscal year t. AUD = Auditors as the dummy variable "1" for "Big 4" auditors and "0" if otherwise. β = Coefficient of the explanatory variables. R^2= Adjusted R^2 within the panel regression. The Chow test (1960) is for the structural break. between Pre-and Post-adoption of IFRS from table lists p-values.All p-values are estimated based on White's (1980) corrected error for heteroscedasticity

The results of the slope coefficient for dummy variable (0.3425)(β_6D) was positive and significant at 1% level. This shows that combined pre-and post-adoption provided a significant relationship with stock price. The results from the coefficients of DEARN, change in DEARN, and DAUD have shown an increase or change after the IFRS adoption.

Given that, the effect of IFRS can be reported on the value relevance of accounting information for the earnings, change in earnings and audit, because the coefficients for earnings has increased by 0.3154 (β_7), change in earnings by 0.2500 (β_8D), and audit (β_{11}D), by 0.4123 that are positives and the values are significant. The variable dividend (β_9D), and

change in dividend ($\beta_{10}D$), do not provide any significant relationship with stock return in the full data. It can be reported that IFRS has significant effect on the value relevance of accounting information for EARN, change in EARN and AUD.

The Chow test (1960) from the pooled sample estimation was significant at 1%(value relevance, F = 14.30 at a significant P-value = 0.00670). This suggested that structural break exist in the relationship between earnings, change in earnings and audit since Chow test is positive. However, the effect of IFRS has decrease on the dividend and change in dividend on the value relevance of accounting information. This has confirmed the hypothesis six (H6) that new accounting regulations provide more value relevance of accounting information after IFRS adoption for earnings, change in earnings and audit.

Robustness Test for Non-Financial

Table 5.31 is for robustness tests conducted to determine whether the effect of IFRS could provide different results than the full sample. Several studies conducted robustness tests using different methods such as stock price and stock return because of econometric issues (Sami & Zhou, 2004), using different regression techniques (Beisland, 2011). The concern for this study was that, the effect of IFRS on the value relevance could be because of the presence of financial firms after the financial crisis.

The estimated coefficients provided for the sub-samples were significantly like those of the full samples, pre-and post-adoption of IFRS in term of coefficients, significances and

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Table 5.31

Robustness Test Non-Financials Firms

Panel A: Price Regression Model 4 (H6)

$SP_{it}^{SAS} = \alpha_0 + \beta_1 BV_{it}^{SAS} + \beta_2 EP_{it}^{SAS} \beta_3 DIV_{it}^{SAS} + \beta_4 AUD_{it}^{SAS} + \mu_{it}$----------Model 31

$SP_{it}^{IFRS} = \alpha_0 + \beta_1 BV_{it}^{IFRS} + \beta_2 EP_{it}^{IFRS} + \beta_3 DIV_{it}^{IFRS} + \beta_4 AUD_{it}^{IFRS} + \mu_{it}$----Model 32

$SP_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 BV_{it}^{SAS\&IFRS} + \beta_2 EP_{it}^{SAS\&IFRS} + \beta_3 DIV_{it}^{SAS\&IFRS} + \beta_4 AUD_{it}^{SAS\&IFRS} + \beta_5 D + \beta_6 DBV_{it}^{SAS\&IFRS} + \beta_7 DEPS_{it}^{SAS\&IFRS} + \beta_8 DDIV_{it}^{SAS\&IFRS} + \beta_9 DAUD_{it}^{SAS\&IFRS} \mu_{it}$ Model 33

Price Model 1	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α	0.0423(3.60)***	0.0747(3.80)***	0.0324(3.14)***	
β_1	0.0213(3.20)***	0.0536(3.47)***	0.0213(3.20)***	1.00
β_2	0.0345(3.00)***	0.0867(4.44)***	0.0345(3.00)***	1.02
β_3	0.0654(2.82)**	0.1431(3.23)***	0.0654(2.82)**	1.01
β_4	0.2458(2.55)**	0.2976(2.99)**	0.2458(2.55)**	1.01
β_5			**0.2543(3.09)***	
β_6			0.0323(3.99)***	
β_7			0.0522(2.99)***	
β_8			0.0777(3.26)***	
β_9			0.0518(3.99)**	
R-Squared	0.3128	0.4900	0.4123	
White test	Chi=0.0030			
Chow test(1960)	F=15.30		P=0.00363	

Panel B: Return Regression Model 4 (H6)

$RET_{it}^{SAS} = \alpha_0 + \beta_1 EARN_{it}^{SAS} + \beta_2 \Delta EARN_{it}^{SAS} + \beta_3 DIV_{it}^{SAS} + \beta_4 \Delta DIV_{it}^{SAS} \beta_5 AUD_{it}^{SAS} + \mu_{it}$- Model 34

$RET_{it}^{IFRS} = \alpha_0 + \beta_1 EARN_{it}^{IFRS} + \beta_2 \Delta EARN_{it}^{IFRS} + \beta_3 DIV_{it}^{IFRS} + \beta_4 \Delta DIV_{it}^{IFRS} + AUD_{it}^{IFRS} \mu_{it}$Model 35

$RET_{it}^{SAS\&IFRS} = \alpha_0 + \beta_1 EARN_{it}^{SAS\&IFRS} + \beta_2 \Delta EARN_{it}^{SAS\&IFRS} + \beta_3 DIV_{it}^{SAS\&IFRS} + \beta_4 DIV_{it}^{SAS\&FRS} + \beta_5 AUD_{it}^{SAS\&IFRS} + \beta_6 D + \beta_7 DEARN_{it}^{SAS\&IFRS} + \beta_8 D\Delta EARN_{it}^{SAS\&IFRS} + \beta_9 DDIV_{it}^{SAS\&IFRS} + \beta_{10} D\Delta DIV_{it}^{SAS\&IFRS} + \beta_{11} DAUD_{it}^{SAS\&IFRS} \mu_{it}$

Model 36

Return Model 1	Pre-adoption	Post-adoption	Pooled data	Mean VIF
α_0	0.0560(3.03)***	0.3881(3.08)***	0.3321(3.02)***	
β_1	0.2041(3.88)***	0.5222(3.07)***	0.2041(3.88)***	1.02
β_2	0.2181(3.32)***	0.4435(3.03)***	0.2181(3.32)***	1.04
β_3	0.2026(3.20)***	0.4138(3.99)***	0.2026(3.20)**	100
β_4	0.1245(4.38)***	0.3675(2.99)***	0.1245(4.38)***	1.02
β_5	0.1325(4.00)***	0.4549(3.43)***	0.1325(4.00)***	1.00
β_6			**0.4250(3.59)***	
β_7			0.3181(3.30)***	
β_8			0.2254(3.88)***	
β_9			0.2112(1.06)	
β_{10}			0.2430(1.01)	
β_{11}			0.3224(3.54)***	
R-Squared	0.1009	0.1756	0.1228	
White test	Chi=0.001			
Chow test(1960)	F=14.17		P=0.000227	

Notes: *** significance 1%, ** significance 5%, and * significance 10%.

Variable definitions for Table 5.22: SP = Share price of firm three months after the year end t. BVPS = Book value per share of firm i at the end of fiscal year t. EPS= Earnings per share for firm i at the end of fiscal year t. DIV = Dividends per share for firm i at the end of fiscal year t

Variable definitions for Table 5.33: RET = Return of firm three months after the year end t. BV = Book value for firm i at the end of fiscal year t. EARN = Earnings for firm i at the end of fiscal year t. ΔEARN = Change in earnings for firm i at the end of fiscal year t. DIV = Dividends for firm i at the end of fiscal year t. ΔDIV = Change in dividends for firm i at the end of fiscal year t. AUD = Auditors as the dummy variable "1" for "Big 4" auditors

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and "0" if otherwise. β = Coefficient of the explanatory variables. The Chow test (1960) is for the structural break. All p-values are estimated based on White's (1980) corrected error for heteroscedasticity.

R^2s. The result of the findings for the price regression model presented an increased in value relevance in for the IFRS full samples.

This method is consistent with the Okafor et al. (2016) by conducting reobust test using non-fianncial firms and Fuensanta et al. (2016) by excluding financial firms from their studies to find value relevance effect of non-financial firms, because of having more regaltions. The estimated coefficients provided for the sub-samples were significantly like those of full samples.

Therefore, to understand whether the increasing value relevance after IFRS adoption could be explained as a result of financial firm increasing value relevance immediately after financial crisis not because of the effect of IFRS, financial firms were eliminated and run for only the non-financial firms. The number of financial firms for the study was 54 with 15 banks and 39 non-banks financial institutions listed in the Nigerian capital market as at the period of study.

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Table 5.31 represented the non-financial (70) firms listed from the Nigerian stock market. The full samples, pre-and post-adoption of IFRS in term of coefficients, significances and R^2s. All coefficients presented higher explanatory power under IFRS for both stock price and return models. Therefore, it can be reported that the findings were robust enough. The Chow test (1960) for the sub-sample did provide a structural break in the relationship between market value and assets and liabilities as a result of adoption of IFRS in Nigeria. Therefore, the conclusion for change in value relevance could not be altered for non-financial firms.

The increased value relevance does not change the decision that financial institutions have any effect on the value relevance of financial reporting. The findings are consistent with Okafor et al. (2016). Therefore, it can be reported that the findings were robust enough. The Chow test (1960) for the pooled sample provide evidence of structural break between the relationship between stock price and return models for sub-sample after the adoption of IFRS. Therefore, the conclusion for increased in value relevance could not be altered for non-financial firms.

The general results provided an increased coefficient and R^2 for stock price and return model after IFRS adoption for the full samples and non-financial firms, when financial firms were removed from the regression models. The empirical evidence of the increased in value relevance after IFRS adoption is noticed for full samples and non-financial firms' under-price model and return model.

5.6 Summary of the Regressions Results

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The regression results report in the analysis coincide with the period when Nigeria was in a period of financial crisis and a difficult economic situation that might have affected the outcome of the regression results. Based on the outcome of the results, there were indications of increases and decreases in value relevance after IFRS adoption from the coefficients. The increase in value relevance could be attributed to the utilisation of accounting reporting by the investors in the country and the use of new accounting reporting. The decline in value relevance could also be attributed to the period of study due to the economic crisis and financial turmoil in Nigeria. This suggested that the new accounting reporting (IFRS) can be utilised by the investors in predicting as well as explaining the

market valuation among Nigerian listed firms that are significant regarding value relevance.

The majority of value relevance studies have used coefficients of accounting numbers to determine the value relevance of accounting information between two models or periods of domestic financial reporting (NGAAP) to new financial reporting (IFRS). Although several value relevance studies reported evidence of value relevance but they did not provide statistical significance differences. Therefore, this study adopted the Chow test (1960) to determine the statistical significance of structural break that existed between market value and accounting numbers because of IFRS adoption in Nigeria, consistent with other studies (for Instance, Kargin (2013))

The regression results of balance sheet models for the assets and liabilities from the pooled estimation results in model 1A, presented coefficients that are greater after IFRS adoption. The Chow test (1960) from pooled sample estimation suggests significant level of 1 percent. This finding provided evidence of the existence of structural break in the relationship between market value and assets and liabilities as a result of IFRS adoption among Nigerian firms. The findings of stock return model for assets and liabilities and change in assets and liabilities pooled sample, present an increased in coefficients for all the accounting measures after IFRS adoption. The increase in value relevance after IFRS adoption has been statistically established by the Chow test (1960) for the pooled sample estimation at significant level of 1%. This suggests a structural break existed from the relationship between stock return and accounting measures as a result of IFRS adoption in Nigeria, except for change in fixed assets and change in non-current liabilities. Therefore hypotheses H1, H2, is to be accepted for both price and return models.

Similarly, the results of the combined and individual variables of net income and operating expense models showed that accounting information was more value relevant for the post-adoption period of IFRS compared to the pre-adoption period under the stock price model. However, variables net income and change in operating expenses do not provide any effect on the change in accounting information under return model. The result of Chow test (1960) for stock price provided evidence of statistical significant effect of IFRS on the value relevance of accounting information. Although return model presented increased value relevance after IFRS adoption, the Chow test (1960) for the pooled estimation is insignificant. These findings mean there is no structural break in the relationship between stock return and accounting numbers after switch to IFRS. This could be attributed to the non significance of net income and change in operating expenses.

Also, the selected net income and operating expenses presented an increase in value relevance after IFRS adoption under stock price regression model. The Chow test (1960) from pooled sample suggested statistical significant increase in value relevance after IFRS adoption under stock price at 1 percent level. This suggests a structural break exist from the relationship between stock price with accounting measures. This significant result supports a structural break between stock price and accounting numbers.

The Chow test (1960) for the pooled estimation was insignificant for the selected net income and operating expenses under stock return. This suggests there was no structural break in the relationship between stock return and accounting numbers. This could be as a result of the effect of change in DP and change in TAX as investors do not utilised the variables in stock valuation. Therefore, the hypothesis four (H4) book value, net interest income, operating income, depreciation, tax expenses provided more value relevance of

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accounting information is accepted under stock price. However, under return model hypothesis four (H4) is to be rejected.

The regression results of the book value and accruals from the stock price and return regression model had a significant increase in value relevance of accounting information after IFRS adoption. The Chow test (1960) for the pooled estimation is statistically significant at a level of 1 %, indicated an increase in value relevance after IFRS adoption under the stock price and stock return regression models. This supports a structural break in the relationship between stock price and book value and accruals after the adoption of IFRS for both stock price and return models. Therefore, Hypotheses H5 is to be supported

The regression results of the book value, earnings and dividends from the stock price and return regression model coefficients had a significant increase in value relevance of accounting information after IFRS adoption. The Chow test (1960) for the pooled estimation is statistically significant at a level of 1 %, indicated an increase in value relevance after IFRS adoption under the stock price and stock return regression models. However, dividend and change in dividends do not show any significant effect of IFRS on the value relevance of accounting information. This supports a structural break exist in the relationship between stock price and book value and earnings not to dividend and change in dividends after the adoption of IFRS for return model. Therefore, hypothesis H6 is to be supported for both price and return models but not for dividend and change in dividend under return model

The price regression result presented better result in term of coefficients and explanatory power than the return regression model. The lower explanatory power of variance reported by stock return has been consistent with other value relevance studies, for instance

those of Francis and Schipper (1999) and Kothari and Zimmerman (1995). The weak results of the return regression could also be consistent with Francis and Schipper (1999) who said that regression results are not suitable in an unstable financial situation and economic turmoil, which Nigeria experienced in the period of 2009 through 2013.

The variable AUD big 4 provided value relevance increase for pooled data, pre-and post-adoption of IFRS for both assets and liabilities, selected assets and liabilities, net income and operating expenses, selected net income and operating expenses, book value and accruals, book value, earnings and dividends for both stock price and return models. The overall regression results between stock price and return regression model, although from the same samples, had different findings. Consistent with the other value relevance studies (Bogstrand & Larson, 2012; Francis et al., 2002; Holthausen & Watts, 2001).

Table 5.32
Summary of Chow Test (1960)

Hypothesis	Model	F-value	Prob- value	Significance level	
Objective One Hypothesis one (H1)	Price	18.08	0.0000	1%	Supported
	Return	18.32	0.0000	1%	Supported
Hypothesis Two (H2)	Price	17.22	0.0040	1%	Supported
	Return	23.25	0.0006	1%	Supported
Objective Two Hypothesis Three (H3)	Price	24.24	0.0000	1%	Supported
	Return	6.40	0.4142	Nil	Not supported
Hypothesis Four (H4)	Price	17.87	0.0023	1%	Supported
	Return	7.45	0.5342	Nil	Not Supported
Objective Three Hypothesis Five (H5)	Price	13.08	0.0001	1%	Supported
	Return	18.60	0.0090	1%	Supported
Objective Four Hypothesis Six (H6)	Price	18.37	0.0654	1%	Supported
	Return	14.30	0.0007	1%	Supported

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5.7 Conclusions

This chapter discusses the data analysis and results of the study. The first Section contained data descriptions and descriptive statistics for all objectives. This followed by the Pearson's correlations for all the objectives. The next sections are for the regression analysis of all the objectives.

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CHAPTER SIX

CONCLUSIONS

6.1 Introduction

In the previous chapter, the analysis and findings of this study were presented. The aim of the current chapter is to discuss and present the conclusions in the present study as well as to make recommendations for investors and policy makers that are in alignment with the research objectives and the main findings. The chapter is divided into sections. First, Section 6.2 discusses an overview of the study. Second, Section 6.3 reported the summary of the hypotheses, discussions and a summary table of the study's results. Third, Section 6.4 reported the study contributions. Last, Section 6.5 provides the study's conclusions.

6.2 Study Overview

In general, this study investigated the value relevance of accounting information among the listed Nigerian firms. The research design used Chow test (1960) to determine whether accounting information is more value relevant after the IFRS adoption among listed Nigerian firms. The two competing regression models adopted for the study were (1) stock price and (2) return models. The present research is significant and timely in providing contributions to the study of value relevance particularly in emerging market for several reasons. Although several studies on the effect of IFRS on the value relevance have been conducted in developed economies (Ashraf E. Elbakry et al., 2017; Fuensanta et al., 2016; Jermakowicz et al., 2007; Palea, 2014; Tsalavoutas & Dionysiou, 2014a) and other emerging economies (Ames, 2013; Hillier et al., 2016; Kargin, 2013a; Kwong, 2010; Mishari,

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2016), only a few value relevance studies have been conducted in Nigeria after the adoption of IFRS (Ahmed & Bello, 2015; Muhammed et al., 2015; Odia & Ogiedu, 2013; Omokhudu & Ibadin, 2015; Rao, 2014). Even so these measured the book value and earnings or a combination of book value earnings and dividends using stock price regression models to determine the value relevance of accounting information.

This current study differed from those previous studies by adopting different approaches using stock price and return models. The study covers significant accounting disclosures for listed firms in Nigerian stock market. First, disclosures related to the assets and liabilities and selected assets and liabilities (current assets, fixed assets, current liabilities and non-current liabilities) for balance sheet items. Second, disclosures related to net income and operating expenses and selected net income and operating expenses (net interest income, operating income, and depreciation and tax expenses) on income statements. Third, disclosure related to accruals and book value. Last, the value relevance of accounting information using book value, earnings and dividends. Majority of the studies do not use control variable AUD big 4 to understand their effect on the value relevance after IFRS adoption. The studies also felt to confirm whether their findings had any statistical significance increase.

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The study adopted regression approach in performing the analysis of the disclosures. In the price model, all variables were deflated by the total number of shares outstanding while for the stock return model the variables were deflated by the market capitalisation at the end of fiscal year, consistent with the previous studies of Barth et al.(2014), and Easton and Sommers(2003). The findings of the study were discussed based on the pre-

adoption and post-adoption periods of IFRS to determine the effect of IFRS on Nigerian listed firms, consistent with Fuensanta et al.(2016) and Graham et al.(2000)

Signs exist of an increase and decrease in both coefficients and explanatory power of R^2sbetween the pre-and post IFRS periods of adoption from the regressions analysis. However, the level of the effect of IFRS from the regression analysis was determined based on the statistical significance of coefficients between the two periods using the Chow test (1960). The study used the structural break that exist between the stock price and return models to support or reject the hypotheses based on previous value relevance studies (Ball et al., 2000; Devalle, Kargin, 2013; Onali and Magarini, 2010; Sami & Zhou, 2004; Tsalavout, Andre, Evans, 2012).

The data for the study were divided into three stages using pooled data for the period from 2009 to 2013 of all the sample firms, which were further divided into pre-and post-adoption periods of IFRS, consistent with (Devalle, Onali and Magarini, 2010)and Graham et al. (2000). The reasons for this process were: 1) to examine the combined explanatory power of the variables and 2) to identify individual explanatory power of coefficients of each of the variables for the pre-and post-adoption of IFRS. This was conducted on assets and liabilities, net income and operating expenses, book value, and accruals from operation, book value, earnings and dividends as the aggregated data. The study also used AUD big 4, as a control variable to determine its effect on the study for both stock price and returns, because most value relevance studies used size, leverage and profitability ignoring Big 4 firms(Chebaane & Othman, 2014)and only used in developed economy (Mishari, 2016)

The study's findings reported that the regression analysis for both stock price and return model coincided with the serious financial situation in Nigeria. Sanusi (2010) reported that the lack of transparency and inadequate disclosure on the financial position of firms brought the Nigerian financial system to near collapse in the period from 2008 to 2009. Therefore, the outcome of the regression might have been affected by the problem.

The result of the study was based on the statistical significance findings between coefficients of each variable for different models, for either the pre-adoption or post-adoption of IFRS. Statistical differences in coefficient between variables were used using Chow test (1960) for the pooled sample structural differences between market value and accounting numbers. The results of the findings vary between the objectives. The adoption of IFRS appears have created structural break in the relationship between stock price and stock return and accounting numbers.

For assets and liabilities explanatory power of coefficients appears to have formed a structural break in the relationship between market value and accounting numbers. For the book value, net income and book value and selected net income explanatory power of coefficients increase after IFRS adoption suggesting structural break in the relationship with market value, except return level for change in net income and change in operating expenses and change in depreciation after IFRS adoption.

For the book value and accruals explanatory power has increased from pre-adoption to post-adoption period. The Chow test for pooled sample supports structural break between market value and accounting numbers, suggesting increase in value relevance after IFRS adoption for both stock price and return models. The coefficients for the book value, and

earnings power increased after IFRS adoption, except for dividends and change in dividends. The coefficients suggested structural break in the relationship between market value and accounting numbers for both stock price and stock return regression models, except for dividends and change in dividends..

Robustness tests for all the objectives were conducted by eliminating financial firms from the full sample to determine whether the effect of IFRS is a result of financial firms. The study's findings established that results were driven by non-financial firms, which could be explained that the result is robust enough and financial firms has no effect on the increased and decreased in value relevance of accounting information. The results of robustness provided by the firms were found to be consistent with the full sample results and that made the analysis robust.

The variable big 4 from this study had a positive relationship with the stock price in all the models. Based on the results of the findings, the presence of Big 4 audit firms had an influence on the value relevance of accounting information for accruals and, book value, and dividends. Therefore, the conclusion can be drawn that the use of a Big 4 audit firm would improve a firm's disclosures.

6.3 Summary of Hypotheses and Major Findings

Table 6.1 presented a summary of major findings of the hypotheses of this study and arranged in accordance with the objectives.All the findings for the hypotheses were determined by the increase in coefficient consistent with other studies such (Devalle, Onali and Magarini, 2010; Kargin, 2013) that used Chow test (1960) to determine structural break in the relationship between market value and accounting numbers

The results of objective one presented Hypothesis one for net assets and liabilities for both price and return models with an increase in value relevance of accounting information after IFRS adoption. The Chow test (1960) supported the statistical significant increase in value relevance after IFRS adoption for the two models. This suggests structural break between market value and accounting numbers after IFRS adoption.

The results of hypothesis two objective one for the selected assets and liabilities (current assets, fixed assets, current liabilities and non-current liabilities) presented an increase in value relevance of accounting information after IFRS adoption for both price and return models. The Chow test (1960) for pooled sample presented was significant at 1 % level, suggesting structural break between the relationship between assets and liabilities for stock price models. Also, pooled sample for stock return model Chow test presented statistical significance level of 1 percent. This suggest structural break in the relationship between stock return and accounting numbers. Therefore, hypotheses one (H1) and two (H2) for the effect of IFRS on value relevance has been supported.

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The findings from the objective two for hypothesis three (H3) of the book value, net income and operating expenses, presented an increase in value relevance of accounting information after the IFRS adoption for stock price model as a result of the increase in coefficient after IFRS adoption. The results of the Chow test (1960) for the pooled sample supported statistical significant increase in value relevance of accounting information for stock price model and a statistical significance decline in stock return model. Therefore, hypothesis three (H3) for stock price is supported and for return model is rejected.

The hypothesis four (H4) for selected income and expenditure reported an increase in value relevance from the coefficients after IFRS adoption for the book value, net interest

income, operating income, depreciation and tax expenses. The result of the price model presented an increase in value relevance after IFRS adoption. The Chow test (1960) for poled samples suggested statistical significance difference value relevance after IFRS adoption for the stock. This suggests structural break between market price and accounting numbers. The results of return model provided an increase in value relevance after IFRS adoption. Chow test (1960) do not supported statistical significance difference in value relevance of accounting information after IFRS adoption. Therefore, hypothesis four (H4), for stock price model is to be supported while return regression model is not supported.

The objective three for the book value and accruals provided hypothesis five (H5) presented an increase in value relevance of accounting information after IFRS adoption from the explanatory power of coefficients for both price and return models. The Chow test (1960) suggested a structural break between market value and accounting numbers. Therefore, hypothesis five (H5) is supported for both price and return models.

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The objective four is for the book value, earnings and dividends for the hypothesis six (H6). The findings provided and increase in coefficient explanatory power between pre- and post-adoption of IFRS for both price and return models under pooled data. This suggested an increase in value relevance of accounting information. The Chow test (1960) for pooled sample support structural break between market value and accounting numbers for both stock price and return models. Therefore, hypothesis six (H6) for both stock price and return models cannot be supported, except for dividends and change in dividends. Table 6.1 is the summary of the hypothesis results.

Table 6.1 Summary of Hypotheses and Major Findings

Objective one: To determine whether disclosures related to book value of assets and liabilities are more value relevant under IFRS than book value of assets and liabilities disclosed under NGAAP among Nigerian listed firms

Hypothesis	Variables	Findings	Not supported	Chow test
Hypothesis One	Assets and Liabilities	The results suggested higher value relevance of accounting information from greater coefficients after IFRS adoption for both stock price and return models. The variable TA and TL presented negative and positive coefficients respectively. All variables have a significant relationship with stock price and return models. The control variable AUD provided positive relationship with stock price and return models. The findings of the robustness test provided evidence that non-financial firms presented evidence of value relevance and have similar result with full sample.	Price= Supported Return=Supported	Supported Supported
Hypothesis Two	Selected assets (current assets and fixed assets) and liabilities (Current liabilities and non-current liabilities) for the stock price and return models	The results suggested higher value relevance of accounting information after IFRS adoption for both stock price and return model from the increase in coefficients after IFRS adoption. The variables under stock price models for CA, FA and AUD presented coefficients that were positively related to the stock prices and CL and NCL had negative relationship with stock price. The stock return model provide increase in value relevance after IFRS adoption by providing higher coefficients after IFRS adoption for all avriables.The robustness text presented evidence of value relevance like full sample for non-financial firms.	Price=Supported Return=Supported	Supported Supported

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Table 6.1 Continued

Objective Two: To determine whether disclosures related to income and operating expenses are more value relevant under IFRS than income and operating expenses disclosed under NGAAP among Nigerian listed firms

Hypothesis	Variables	Findings	Increase in Coefficients	Chow test
	Net income and operating expenses	The variables BV, NI, OE and AUD presented positive relationship with stock price at the pre-and post-adoption of IFRS. The overall result presented an increase in value relevance after IFRS adoption from coefficients of determination increase after IFRS adoption.	Price= Supported	Supported
Hypothesis Three		The variables NI and change in OE under return model do not present any significant relationship with stock return but after IFRS adoption. The change in NI and OE presented positive and negative relationship with stock return. The effect of IFRS is reported from the greater coefficients after IFRS. The variable AUD has a positive relationship with stock return for both pre-and post-adoption of IFRS. However, a decline in value relevance of accounting information after IFRS adoption under return model was reported.	Return= Not Supported	Not Supported
Hypothesis Four (Stock Return model	Selected Book value Net income and operating expenses Net interest, operating income, depreciation, tax expenses and audit stock return mode	The variables BV NII, OI, DP and TAX present higher coefficients after the IFRS adoption signifying higher value relevance after IFRS adoption for stock price model. The stock return model reported NII, Change in NII, OI, change in OI, TAX and change in TAX to present higher coefficient after IFRS adoption. However, change in DP and change in TAX has no significant relationship with stock return stock return. The explanatory R^2 after the IFRS adoption was greater. The variable AUD provided a positive coefficient for both pre-and post-adoption of IFRS.	Price= Supported Return= Not supported change in depreciations and change in TAX not supported	Supported Not Supported

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Table 6.1 Continued

Objective Three: To determine whether disclosures related to book value and accruals under IFRS are more value relevant than book value and accruals disclosed under NGAAP among Nigerian listed firms.

Hypothesis	Variables	Findings	Increase in Coefficients	Chow test
Hypothesis Five	Book value and accruals	The results for BVPS, ACC and AUD presented positive relationship with stock price. The result of findings shows that coefficients for all the variables are greater after IFRS adoption. The return model reported Earnings, change in earnings, accruals and change in accruals to have greater coefficients after IFRS adoption. This suggests increase in value relevance of accounting information after IFRS adoption.	Price= Supported Return= Supported	Supported supported

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Table 6.1 Continued

Objective Four: To determine whether book value, earnings and dividends disclosed under IFRS more value relevant than book value, earnings and dividends, disclosed under NGAAP among Nigerian listed firms

Hypothesis	Variables	Findings	Increase in Coefficients	Chow test
Hypothesis Six	Book value, Earnings and Dividends for both price and return models	The results presented book value, earnings and dividends and AUD have positive coefficients and are greater after IFRS adoption. This suggested an increase in value relevance after IFRS adoption	Price mode Supported	Supported
		The return model provided a result that has positive and significant relationship for only EARN, change in EARN and ACC and change in ACC and AUD at the pre-adoption of IFRS with stock return. All variables BV, change in BV, EARN and change in EARN, and AUD presented positive coefficients and are greater after IFRS adoption. except the DIV and change in DIV,	Return model Supported. DIV and Change in DIV not supported	Supported

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6.4 Study Contributions

The findings of the present study have several significant contributions, which are based on practice and policy, methodology, and theory.

6.4.1 Theoretical Contributions

In previous studies, theories have provided mixed results on the value relevance of accounting information in the pre- and post-adoption periods of IFRS using book value and earnings in emerging markets (Aboody et al., 2002a; Jianwei Liu & Chunjiao, 2008; Kadri et al., 2009). The present study provided evidence of the value relevance of accounting information using the stock price and return models in an emerging market and specifically with respect to the Nigerian capital market that is considered an emerging market.

The results obtained concerning the relationship between the disclosures and stock price and return models provided evidence of increases and decreases in the value relevance of accounting information form IFRS adoption. The results present empirical evidence, which supports expectations of several theories (Efficient Market Hypothesis (EH)) concerning the relationship and value relevance of accounting information for market participation.

First, the theoretical contributions drawn from the literature review and the findings of the regression analysis contributed to the Efficient Market Hypothesis (EMH) in the value relevance literature in the Nigerian context. Several studies in developed markets have used EMH in value relevance studies (Bogstrand & Larson, 2012; Dung, 2010; Kusuma,

2014). This present study also demonstrated that all prices and returns of the disclosed and recognised variables traded in the Nigerian capital market by firms reflect all the available information in an accurate manner and revealed the shared beliefs of all users or investors about the predictive prospect of the Nigerian share market. Fama (1970) reported that the Efficient Market Theory is more interested in prices at any given point in time as "fully reflecting" available information.

Furthermore, Hodnett and Hsieh (2012) argued that EMH is the most significant theory underpinning areas of accounting research. The significant results presented in the current study are grounded in EMH, meaning that disclosed assets and liabilities under both stock and return regression models, recognised net income and operating expenses and their components, and book value and accruals under NGAAP and IFRS are generally reflected by the stock prices and stock returns. This has shown that Nigerian capital market is efficient as all variables have reflected all available information of the market. The market value presented in this study has causes existing share prices have been incorporated and also reflect all relevant information.

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6.4.2 Practical and Policy Implications

The investigation conducted in the present study of the new financial reporting presented evidence of a significant relationship between the financial reporting with the stock price and return models. The findings of the present study suggested that, selected assets (current assets, fixed assets) and liabilities (current liabilities and non-current liabilities), and selected net income (net interest income, operating income), and operating expenses (depreciation and tax expenses), book value and accruals and book value, earnings could

provide better, more useful accounting information to investors, and therefore need to be used in providing financial information to investors. Therefore, Nigerian firms need to be monitored to ensure a greater compliance with the IFRS and to also be extended to firms not listed in the Nigeria stock market.

The findings of the present study could mean that investors may have more confidence in selected accounting disclosures of assets (for example, current assets, fixed assets and current liabilities and non-current liabilities), than aggregated assets and liabilities as selected assets provided each of the variables contributions on the aggregated assets and liabilities. The policy makers need to provide additional policy on the disclosures to be made on disaggregated than aggregated disclosures for all firms.

Majority of the literature on empirical studies regarding value relevance studies mainly focused on book value of equity and earnings as the two accounting reporting elements. Some of these studies reported a decline in explaining market price after IFRS adoption. The decline in accounting reporting as suggested by the researchers is as a result of the noise that embedded into stock market price, This noise have proved to be from an increasing volume of transactions that are based on non-information and also, the ability of the market prices to fully reflect accounting information being thus reduced. This was found in the net income statement and book value, earnings and dividends. Therefore, policy makers, regulators require this information to improve the quality of financial reporting

The study findings provided evidence of increasing value relevance of AUD big 4 as suggested from the literature that they improve the quality of financial reporting. The

Nigerian CAMA (1990) has stated categorically the audit requirements and qualification in financial reporting. Now that IFRS is new to local auditors, therefore, they need to be strengthening on how to implement and comply with IFRS for firms that do not use AUD big 4 to improve the quality of accounting standards.

The IFRS has been reported to provide high quality financial reporting than domestic accounting reporting by the IASB 2015 and World Bank reports of 2004 and 2011 provided Nigerian domestic accounting reporting to be weaker than the IFRS. The findings of this study, though reported conflicting results but the superiority of value relevance after IFRS adoption has been established. Therefore, the findings of this study could serve as a means to report to IASB that IFRS has provided more value relevance of accounting information than SAS in Nigeria.

Most of the value relevance studies conducted in Nigeria used stock price in determining relationship between accounting numbers and market value. This study used two approaches of stock price and return model to determine the value relevance of accounting information. The findings suggested different results particularly for income statements. Therefore, investors and regulators should look at the accounting information in the two directions to ensure the quality of financial reporting.

Lastly, the results of the present study is of interest to managers, investors, and other researchers, who presently use accounting information provided by firms to use in monitoring of business performance. These variables have important roles with respect to investors and by implication to capital market development.

6.4.3 Methodological Contributions

The majority of the studies conducted in Nigeria are based on earnings and book values using stock price model only for the pre-and post-adoption periods of IFRS. This present study employed both stock price and return model on the assets and liabilities, net income and operating expenses, book values, and accruals, and book value, earnings and dividends. Also, studies conducted in Nigeria do not determine the statistical relevance of accounting information after IFRS adoption. They based their findings on the explanatory power of adjusted R^2.

This present study used the Chow test (1960) to determine whether structural break in the relationship between market value and accounting numbers. Therefore, this study differs with all other studies conducted on value relevance in Nigeria particularly using the two models and statistical significance measurements using the Chow test (1960) to measure structural break between the two models. This gives an opportunity to provide contributions about the information content of the disclosed and recognised financial reporting information used in the operations of Nigerian firms. Additionally, the present study provided a better understanding of financial reporting of Nigerian firms to investors for the investment decisions.

Similarly, the stock prices and return models measure the degree of the value relevance of accounting information among the Nigerian firms in the present study. Some literature

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has reported that the stock price models could not be standalone in explaining stock markets (for instance, Yang, 2007). In the present study, the stock return models provided less dynamic analysis, relating the changes that had occurred within the independent variables, in explaining of the stock market.

This approach has contributed to the literature, demonstrating that stock return models do not provide a better power of prediction because the model is unreliable during periods of financial crisis and economic turmoil (Francis & Schipper, 1999). Nevertheless, the (Ohlson, 1995)) and Easton and Harris (1991) valuation models have been used by many researchers as the leading methodological contributions of research in accounting (Brown, Lo, & Lys, 1999; Dechow et al., 1999).

Lastly, the present study made a further contribution by validating the studies of Alali and Foote (2012), Barth et al. (1996), Dechow et al. (1999), and Dhaliwal et al. (1999b) in a completely different setting, with different samples, periods and methodology. The present study also extended the use of Big 4 audit firms that has seldom been used in value relevance research. The findings support that fact that Big 4 audit firms have contributed to the value relevance of accounting information to investors by exhibiting a significant relationship with stock price and stock return.

6.4.4 *Study Limitations and Future Research*

As with any study, the results of the present study have been constrained by several limitations and requirements for future research. The general or major limitations are that the

data collected for this study were from the all listed firms on the Nigerian stock market and that future research should extend to periods beyond 2013.

First, this present study adopted a secondary data collection procedure, with data collected from Thompson Reuters, Bank Scope Data Streams, and annual reports of firms listed in the Nigerian stock market. Although this method is consistent with previous studies on value relevance in emerging markets (Kadri et al., 2009), several studies are sceptical of the reliability of the measures and therefore attempted to provide solution such as Clacher et al. (2013) and Xiaoqing Zeng (2012), that considered the methods of determining value relevance as most effective. A future study could use other measures by combining both primary data and secondary data to see if different results would be achieved.

Second, the two periods of the present study are the periods immediately after the collapse of the Nigerian capital market of 2008 and period of transition to IFRS. The impact of the value relevance of the stock market failure may not give proper results because it was the period in which the government bailed out banks and issues of merger and acquisitions arose while the period of transition was a window period for firms to understand and comply with IFRS. Future study should be undertaken beyond 2013 when banks and other firms might have fully complied with the IFRS.

Third, this current study considered assets and liabilities, and selected assets and liabilities, net income and operating expenses in determining the relationship between with stock prices and returns. However, other accounting numbers that could be value relevant can also be examined (such as, non-performing loans and assets, derivatives disclosures,

financial assets and financial liabilities, goodwill impairment, relevance and reliability of fair values.

Fourth, the results of this study are only for the firms in Nigerian capital market, an emerging market. Future study can be extended to other countries that have adopted IFRS using similar disclosures. Also, this study may suffer from bias in its conclusions due to the limited number of years after the IFRS adoption, which may affect the result. Therefore, it would be of importance to cover a longer time horizon.

Fifth, although, the sample size was initially large, the sample became smaller because there was a reduction of sample in the models for regression as a result of incomplete data resulting in the loss of about 30% of all observations). Therefore, a need exists to extend the study using larger samples than the present study.

Sixth, the period of this study was marred with the financial crisis before the period of IFRS adoption and also a decline in local currency during the period of IFRS adoption that may affect banks and other non-financial firms. Therefore, there is need for a study to be conducted after the year 2013 before 2015 during which the foreign currency was stable.

Finally, future research could compare a specific topic using fair value and historical measurements between Nigerian firms that used NGAAP and IFRS. Confirmation from a further study from using the two models for a different study in a different sector or settings could be used to determine if similar results could be obtained.

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6.5 Conclusions

This present study determined the value relevance of Nigerian firms' assets and liabilities (balance sheet) and net income and operating expenses (income statement), book value and accruals, book value, earnings and dividends from operations, over a period of five years (pre-and post-adoption periods of IFRS). The study aimed to provide more light to see if the adoption of IFRS globally has improved the quality of accounting information in term of decision usefulness to equity investors for decision making. The major motivating factor for the study was the empirical and practical evidence of eroded (decline) concern of accounting information of reported financial reporting for investors' decision making. The decline in accounting information is of much concern for auditors, corporate accountants, and financial analysts that was directed towards assets and liabilities, income statement and particularly bottom line items like book value and accruals, and book value, earnings and dividends.

The study addressed these issues using a sample of 126 firms on the Nigerian stock market with 630 firm-year observations for disclosures of balance sheet items and income statements between 2009 and 2013. The five-year observations were divided into two periods: 2009 to 2011 as the pre-adoption period of IFRS and 2012 to 2013 as the post-adoption period of IFRS. The 630 firm-year observations were also divided into pre-and post-adoption periods of IFRS with 387 firm-year observations for the pre-adoption period and 252 for the post-adoption period of IFRS. The scale of value relevance is operationalised using stock price and return regression models, and determined by the Chow test (1960) for statistical difference in value relevance between the two periods.

The findings of this study have shown that assets and liabilities, income and operating expenses captured most of the required information in determining the value relevance of accounting information among Nigerian firms. Prior literature and studies have supported the notion that accounting information has decreased in value relevance over the past few decades. The findings of the present study generally show that accounting disclosures under NGAAP and IFRS adoption have explained the relationship between stock prices and returns. Specifically, the disclosures reported from financial statements such as: 1) assets and liabilities and selected of assets and liabilities, and 2) income and operating expenses and their components under both stock price.

The results on select net income and operating expenses presented a decline in value relevance of accounting information for stock price model, supporting Francis and Schipper (1999) that accounting information declined over time. However, Chow test (1960) did not support any differences in value relevance between the two periods. The results of stock prices for 1) book value and accruals, supported incremental value relevance of accounting information after the IFRS adoption under stock price and return models, and 4) book value, earnings and dividends also reported statistical significance value relevance. The results from the study have also shown that the stock price model provided a better relationship with accounting number than the stock return model.

The results are similar, with the theoretical assumptions of the EMH for the listed firms, specifically for book value, accruals, and book value, earnings and dividends. However, unlike prior literature on value relevance research in emerging markets, the present study

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found relatively higher coefficient after IFRS adoption in regression measurement especially for the stock price model.

This indicates that an increase in the value relevance of accounting information grew from NGAAP to IFRS over the period. This finding supported the literature finding that accounting information did not decrease for earning information and book value. The most significant aspect of the present study within the period of NGAAP and the transition reporting period of January 2012 was the mixed empirical signals on the variables adopted as they exhibit greater and lower value relevance of accounting information after the adoption of IFRS.

Furthermore, the empirical findings from the stock price and return models show significant signs of increase and decline in the value relevance of information as well as an increase in value relevance in the disclosures. Namely, total assets and total liabilities and selected assets and liabilities, net income and operating expenses and selected net income and operating expenses under-price model but no effect of IFRS was noticed under stock return models. The possible explanation for this finding can be attributed to the fact that the period of transition was characterised by the economic turmoil and recovery.

However, the results of this study presented mixed findings for the disclosure on the impact of IFRS. The conclusions for the empirical findings confirmed that assets and liabilitiesand book value and accruals are value relevant for both stock price and return model. Also, book value net income and operating expenses under stock price and selected net income provided value relevant relevance of accounting information. However, book value, net income and operating expenses and selected net income under stock return

model do not provide any significant effect of IFRS. The findings of book value accruals for both stock price and return presented a significant statistical increase in value relevance of accounting information as a result of IFRS adoption. Lastly, the results of book value and earnings presented statistical significant increase in value relevance of accounting information for both stock price and return model. The result of dividend under stock return does not present any significant increase in value relevance after IFRS adoption. Therefore, the accounting information that was regarded by previous literature to have lost its decision usefulness has regained its relevance in Nigeria but also provides evidence in decline in value relevance of accounting information.

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Appendix A

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Notes:

.reg
last estimates not found
r(301);

ASSETS AND LIBILITIES

Price Regression model

. reg sp ta tl aud if D1=0, r

Linear regression Number of obs = 378
F(1, 138) = 5.53
Prob> F = 0.0000
R-squared = 0.2009
Root MSE = .763542

| Robust
Sp |Coef. Std. Err. t P>|t| [95% Conf. Interval]
---|---
Ta | .0354254 .008812 4.02 0.000 .0267262 .0426514
tl | -.024201 .007857 -3.08 0.000 -.031762 .0352611
aud | .0524310 .016233 3.23 0.000 .0703541 .6534311

_cons | .326511 .065564 4.98 0.000 .256342 .4356299

. regsp ta tl aud if D1=1, r

Number of obs = 252
F(2, 137) = 44.76
Prob> F = 0.0000
R-squared = 0.2735
Root MSE = .45211

Sp | Coef. Std. Err. t P>|t| [95% Conf. Interval]

Ta | .2785796 .081575 3.48 0.000 .1867230 .3464414

Tl | -.094930 .022670 -3.12 0.000 -.042222 -.089243

Aud| .686952 .22975 2.99 0.000 .524313 .08425617 _cons | .860724 .288834 2.98 0.001 .7082870 1.0514117

. regsp ta tlaud d1 d*ta d*tl d*aud, r

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Number of obs = 630
F(2, 137) = 231.40
Prob> F = 0.0000
R-squared = 0.25.08
Root MSE = .87796

Sp| Coef. Std. Err. t P>|t| [95% Conf. Interval]

Ta | .0354254 .0088120 4.02 0.000 .0267262 .0426514

tl | -.024201 .0078570 -3.08 0.000 -.031762 .0352610

aud | .0524310 .0162330 3.23 0.000 .0703541 .6534319

d | .3301094 .0956839 3.45 0.000 .3075541 .1673214

d*ta | .2431542 .0077934 3.12 0.000 .2076443 .3421621

d*tl | -.0465282 .0123421 -3.77 0.000 -.0365437 .0543270

D*aud| .6345211 .1733660 3.65 0.000 .5165432 .7987654

_cons	.5342131	.1325530	4.00	0.000	.432146	.6664007

VIF

Variable	VIF	1/VIF
Tl	1.01	0.213110
aud	1.02	0.2413118
ta	1.04	0.8635422
Mean VIF	1.03	

White's test for Ho: homoskedasticity

against Ha: unrestricted heteroskedasticity

chi2(9) = 2.98

Prob>chi2 = 0.000

Return regression model

reg ret ta Lta tl Lt laud if D1=0, r

Number of obs = 378

F(6, 157) = 55.40

Prob> F = 0.0000

R-squared = 0.1005

Root MSE = .876532

---

sp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Ta	.0652111	.0163440	3.99	0.000	.0560230	.0934434
LTa	.0525410	.0176311	2.98	0.000	.0445097	.0714180
Tl	-.0376251	.0136820	-2.75	0.030	-.045614	.0156250
LTl	-.0542311	.0131682	-4.11	0.000	-.0711665	-.0032118
Aud	.0762430	.0208880	3.65	0.000	.0634521	.086614
_cons	.256924	.080794	3.18	0.000	.108287	.418397

---

reg ret ta Lta tl Ltl laud if D1=, r

Number of obs = 252
F(6, 157) = 54.40
Prob> F = 0.0000
R-squared = 0.1289
Root MSE = .65431

---

sp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Ta	.1364420	.0453300	3.01	0.000	.1064433	.231002
LTa	.1197510	.0374220	3.20	0.001	-.1287621	.0201180
Tl	-.0532500	.014211	-3.75	0.003	-.0609181	-.0879230
LTl	-.0209100	.0355601	-3.40	0.000	-.050817	-.0705621
Aud	.3414570	.090572	3.77	0.000	.2161201	.3107704
_cons	.909335	.181867	5.04	0.000	.7415342	.1500120

---

reg ret ta Lta tl Ltl aud d d*ta d*Lta d*tl d*Ltl aud, r

Number of obs = 630
F(2, 137) = 69.22
Prob> F = 0.0000
R-squared = 0.1609
Root MSE = 6.65353

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sp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Ta	.0652111	.0163440	3.99	0.000	.0560230	.0934434
LTa	.0525410	.0176311	2.98	0.000	.0445097	.0714180
Tl	-.0376251	.0136820	-2.75	0.030	-.045614	.0156250
LTl	-.0542311	.0131682	-4.11	0.000	-.0711665	-.0032118
Aud	.0762430	.0208880	3.65	0.000	.0234521	.086614
d	.4133151	.0124493	3.32	0.000	.2955113	.5355414
d*Ta	. 0712311	.0252590	2.82	0.000	.01176723	.0892112
d*LTa	.0672100	.0224031	3.00	0.000	.0064533	.0820918
d*Tl	-.015624	.0052251	-2.99	0.001	-.005614	-.0098730
d*LTl	-.066671	.0191030	-3.49	0.000	-.00114597	-.03651421

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Aud |	.265214	.068287	4.30	0.000	.15542165	.3312011
_cons |	.6524111	.173053	3.77	0.000	.5280060	.7653411

Selected Assets and liabilities

. regsp ca fa cl ncl aud if D1=0, r

Number of obs = 378
F(3, 156) = 57.02
Prob> F = 0.0000
R-squared = 0.3099
Root MSE = 2.651400

Sp |	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
ca |	.1523210	.033774	4.51	0.000	.134321	.16517100
fa |	.0673431	.022523	2.99	0.000	-.0522682	.080213
cl |	-.4219746	.141601	-2.98	0.000	-.365395	-.606534
ncl |	-.6234512	.147744	-4.22	0.000	-.565512	-.7652110
aud |	.6534211	.178044	3.67	0.000	.555225	.76252400
_cons |	.26354211	.087847	3.00	0.000	.1976681	.352424

. reg sp ca fa cl ncl aud if D1=1, r

Number of obs = 252
F(5, 126) = 56.02
Prob> F = 0.0000
R-squared = 0.4507
Root MSE = .54231

Sp |	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
ca |	.393832	.122308	3.22	0.000	.2977662	-.4253420
fa |	.371996	.101917	3.65	0.000	.2898000	.411041
cl|	-.776190	.213241	-3.64	0.000	-.6428877	.8786542
ncl |	-.927010	.261131	-3.55	0.000	-.787551	1.275553
aud|	.9430430	.314348	3.00	0.000	.753422	1.714622
_cons |	.8273691	.225441	3.67	0.000	.1987311	1.107555

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. vif

Variable	VIF	1/VIF
aud	1.01	0.50398
ca	1.02	0.493111
Fa	1.03	0.503988
ncl	1.03	0.764966
cl	1.04	0.493111
Mean VIF	1.30	

White's test for Ho: homoskedasticity
against Ha: unrestricted heteroskedasticity

chi2(9) = 29.06
Prob>chi2 = 0.000

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Pooled data

Reg sp ca fa cl ncl d d*ca d*fa d*cl d*ncl d*aud, r

Number of obs = 630
F(3, 630) = 287.02
Prob> F = 0.0000
R-squared = 0.3598
Root MSE = .76254

Sp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ca	.1523210	.033774	4.51	0.000	.134321	.16517100
fa	.0673431	.022523	2.99	0.000	-.0522682	.080213
cl	-.4219746	.141601	-2.98	0.000	-.365395	-.606534

ncl	-.6234512	.147744	-4.22	0.000	-.565512	-.7652110
aud	.6534211	.178044	3.67	0.000	.555225	.76252400
d	.1824362	.015644	2.90	0.001	.05152362	.7342610
d*ca	.2415111	.061926	3.90	0.001	.1534220	.3543333
d*fa	.3046531	.097645	3.12	0.000	.2058381	.3987311
d*cl	-.3542111	.118470	-2.99	0.000	-.267326	.3998710
d*ncl	-.3035621	.083171	-3.65	0.000	-.2651004	.4088440
d*aud	.2896222	.074453	3.89	0.000	.2314158	.3322114
_ cons	.5638271	.183061	3.08	0.000	.4500740	.6524311

Return Model Selected Assets

reg ret ca Lca fa Lfa cl Lcl nclt lncl laud if D1=0, r

Number of obs = 378
F(9, 198) = 55.40
Prob> F = 0.0040
R-squared = 0.1009
Root MSE = .56354

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sp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ca	.0254110	.0074741	3.40	0.000	.0176511	.0303314
Lca	.0325141	.0108744	2.99	0.000	.0254131	.0425304
fa	.0376252	.0125400	3.00	0.030	.0201011	.0432311
Lfa	.0431711	.0138801	3.11	0.000	.0308176	.5342318
cl	-.0653421	.0130921	-4.99	0.000	-.0682651	.0244425
Lcl	-.0421982	.0070622	-5.98	0.000	-.0109650	.0714180
Ncl	-.2563701	.0683651	-3.75	0.030	-.0254131	.0156250
LNcl	-.5423111	.0106127	-5.11	0.000	-.0785241	-.0032118
Aud	.2652413	.0469452	5.65	0.000	.1652411	.4086622
_cons	.256924	.0807940	3.18	0.000	.108287	.4183970

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reg ret ca Lca fa Lfa cl Lcl ncl lncl laud if D1=1, r

Number of obs = 252
F(9, 200) = 67.40
Prob> F = 0.00220
R-squared = 0.1609

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Root MSE = .76532

sp	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
ca	.1017650	.0309321	3.29	0.000	.0982270	.0934434
Lca	.0649651	.0216550	3.00	0.000	.0511220	.0714180
fa	.0939682	.0234921	4.00	0.030	.0672126	.0156250
Lfa	.0653821	.0163862	3.99	0.000	.0565251	-.0032118
cl	-.1327711	.0331900	-4.00	0.000	-.1005430	.0932234
Lcl	-.0964304	.0196812	-4.90	0.000	-.0109187	.071330
Ncl	-.2875910	.0781511	-3.68	0.030	-.0332170	.015544
LNcl	-.6076512	.0195391	-3.11	0.000	-.0982215	-.0032118
Aud	.9176721	.2353011	3.90	0.000	.7652331	.1083314
_cons	.4782580	.0153781	3.11	0.000	.2085537	.6542117

reg ret ca Lca fa Lfa cl,lcl ncl lncl aud d*ca d*Lca d*fa d*Lfa d*cl,d*lcl d*ncl d*lncl d*aud, r

Number of obs = 630
F(2, 137) = 69.44
Prob> F = 0.0000
R-squared = 0.1309
Root MSE = 6.65550

sp	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
ca	.0254110	.0074741	3.40	0.000	.0176511	.0303320
Lca	.0325141	.0108744	2.99	0.000	.0254131	.0425340
fa	.0376252	.0125400	3.00	0.030	.0201011	.0432311
Lfa	.0431711	.0138801	3.11	0.000	.0308176	.5342318
cl	-.0653421	.0130921	-4.99	0.000	-.0682651	.0244425
Lcl	-.0421982	.0070622	-5.98	0.000	-.0109650	.0714180
Ncl	-.2563701	.0683651	-3.75	0.030	-.0254131	.0156250
LNcl	-.5423111	.0106127	-5.11	0.000	-.0785241	-.0032118
Aud	.2652413	.0469452	5.65	0.000	.1652411	.4086622
d	.4653421	.1077180	4.32	0.000	.3092201	.5355422
d*ca	.0763542	.0261492	2.92	0.000	.0654210	.0892112
d*lca	.0324511	.0088661	3.66	0.000	.0265417	.0820918
d*fa	.0563431	.0141200	3.99	0.001	.0420962	-.5618730
d*Lfa	.0222110	.0049510	4.49	0.000	.0125444	-.0365614
cl	-.0674322	.0022551	-2.99	0.000	.-086023	.0306650

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Lcl	-.0542315	.0136300	-3.98	0.000	. 0651197	.0165543
ncl	-.0312211	.0054311	-5.75	0.030	-.0226511	-.054321
Lcl	-.06534311	.0158991	-4.11	0.000	-.033325	-.030937
Aud	.6524311	.0151728	4.30	0.000	.3076515	.831201
_cons	.2213335	.0284861	7.77	0.000	.10989008	.464431

Income and Expenditure

___ ____ ____ ____ ____ (R)
/__ / ____/ / ____/
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Notes:

.reg
last estimates not found
r(301);

Price Regression model

Reg sp bv ni oe aud if D1=0, r

Linear regression

Number of obs = 378
F(3, 136) = 99.21
Prob> F = 0.0000
R-squared = 0.2981
Root MSE = 9.45242

| Robust
sp | Coef. Std. Err. t P>|t| [95% Conf. Interval]

bv | .0524119 .0175291 2.99 0.000 .046221 .09425222
ni | .0043122 .0010780 4.00 0.000 .4052670 .0154231
oe | -.0232111 .0069100 -3.36 0.000 -.0335000 .0022111
aud| .0424312 .0116251 3.65 0.000 .0298176 .0634221
_cons | .2541311 .0636921 3.99 0.000 .1876453 .3652410

Reg sp bv ni oe aud if D1=1, r

Linear regression

Number of obs = 252
F(4, 145) = 61.22
Prob> F = 0.0000
R-squared = 0.4022
Root MSE = 1.54252

| Robust
sp | Coef. Std. Err. t P>|t| [95% Conf. Interval]

bv | .1377180 .034516 3.99 0.000 .1065222 .2064675
ni | .0324421 .008111 4.00 0.000 .016524 .0472330
oe | -.0542110 .016731 -3.24 0.000 -.035421 -1.30827
aud| .1066315 .030998 3.44 0.000 .1010233 .432701
_cons | .7818441 .250591 3.12 0.000 .5422211 .987622

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. vif

Variable	VIF	1/VIF
bv	1.01	0.493111
aud	1.01	0.503988
oe	1.03	0.503988
ni	1.04	0.764966
Mean VIF	1.02	

White's test for Ho: homoskedasticity
against Ha: unrestricted heteroskedasticity

chi2(9) = 21.06
Prob>chi2 = 0.000

Reg sp bv ni oe aud d d*bv d*ni d*oe d*aud, r
Linear regression

Number of obs = 630
(10, 146) = 354
Prob> F = 0.0000
R-squared = 0.3142
Root MSE = 2.1111

	Robust					
sp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
bv	.0524119	.0175291	2.99	0.000	.046221	.09425222
ni	.0043122	.0010780	4.00	0.000	.4052670	.0154231
oe	-.0232111	.0069100	-3.36	0.000	-.0335000	.0022111
aud	.0424312	.0116251	3.65	0.000	.0298176	.0634221
d	**.3312087**	.0665081	4.98	0.000	.213550	.3532413
d*bv	.0853070	.0141002	4.90	0.000	.0765311	. 102413
d*ni	.0281301	.0090160	3.12	0.000	.012134	.0415410
d*oe	-.0310002	.0091211	-3.44	0.000	-.023200	-.042222
d*aud	.0642002	.0160903	3.99	0.000	.0436250	.087365
_cons	.5027713	.1385071	3.81	0.000	.4024061	.751030

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Selected Net Income and Operating Expenses

Reg sp bv nii oi dp tax aud if D1=0, r

Linear regression

Number of obs = 378
F(7, 176) = 76.22
Prob> F = 0.0000
R-squared = 0.2544
Root MSE = 7.2243

| Robust
sp | Coef. Std. Err. t P>|t| [95% Conf. Interval]

bv	.0421221	.0122451	3.44	0.000	.0302209 .03423267
nii	.0543210	.0153459	3.54	0.000	.0421311 .00723650
oi	.0213229	.0071078	3.00	0.000	-.0156200 .0421432
dp	-.0321219	.0221500	-1.45	0.224	-0216131 -.5385331
tax	-.0222121	.0145210	-1.53	0.154	-.0123141 -.1672122
aud	.4321247	.1342100	3.25	0.000	.0334525 .0702650
_cons	.4563617	.1408521	3.22	0.000	.3132090 .5542373

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Reg sp bv nii oi dp tax aud if D1=1, r

Linear regression

Number of obs = 252
F(7, 156) = 98.22
Prob> F = 0.0000
R-squared = 0.3523
Root MSE = 5.0922

| Robust
sp | Coef. Std. Err. t P>|t| [95% Conf. Interval]

bv	.198445	.0543681	3.65	0.000	.100233 .29815332
nii	.121975	.0379990	3.21	0.000	.1078424 .38562200

oi	.067854	.0211382	3.21	0.000	.0523122	.7934422
dp	-.108661	.0331311	-3.28	0.000	-.0904534	-.0365443
tax	-.062086	.0292822	-2.22	0.001	-.524256	-.0437764
aud	1.024746	.3404478	3.01	0.001	1.002401	.6487720
_cons	.744015	.4971482	2.11	0.030	.9066600	2.7009849

Reg sp bv nii oi dp tax audd d*bv d*nii d*oi d*dp d*tax d*aud, r

Linear regression

Number of obs = 378
F(7, 620) = 98.22
Prob> F = 0.0000
R-squared = 0.3125
Root MSE = 9.6534

sp	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
bv	.0421221	.0122451	3.44	0.000	.0302209	.03423267
nii	.0543210	.0153459	3.54	0.000	.0421311	.00723650
oi	.0213229	.0071078	3.00	0.000	-.0156200	.0421432
dp	-.0321219	.0221500	-1.45	0.224	-0216131	-.5385331
tax	-.0222121	.0145210	-1.53	0.154	-.0123141	-.1672122
aud	.4321247	.1342100	3.25	0.000	.0334525	.0702650
d	.3421230	.1055941	3.24	0.000	.234221	.4903335
d*bv	.1563231	.0389834	4.01	0.000	.1030620	.0644327
d*nii	.0676541	.0169560	3.99	0.000	.1923435	.0053425
d*oi	.0465322	.0155631	2.99	0.001	.2071652	.0393232
d*dp	-.0765343	.0256830	-2.98	0.002	-.0045423	-.0023221
d*tax	-.0398721	.0132501	-3.01	0.001	-.0742325	-.0522242
d*aud	.5926216	.1949410	3.04	0.005	-.0245277	.04134265
_cons	.2876534	.068425	3.09	0.000	.1987622	.354353

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Book value and Accruals

Reg sp bv acc aud if D1=0, r

Linear regression Number of obs = 378

F(4, 156) = 98.22

Prob> F = 0.0000

R-squared = 0.4890

Root MSE = .673542

| Robust

sp | Coef. Std. Err. t P>|t| [95% Conf. Interval]

bv | .0245611 .0061400 4.00 0.000 .0134239 .04532630

Acc | .0342191 .0100640 3.40 0.000 .0152421 .0503199

Aud | .2654131 .0884710 3.00 0.000 .1421112 .5322345

_cons | .2681022 .1359185 3.67 0.000 .3746000 .5128740

Reg sp bv acc aud if D1=1, r

Linear regression

Number of obs = 252

F(3, 134) = 62.65

Prob> F = 0.0000

R-squared = 0.5533

Root MSE = 7.56342

| Robust

sp | Coef. Std. Err. t P>|t| [95% Conf. Interval]

bv | .0677731 .0222210 3.05 0.000 .0519239 .0954363

Acc| .087641 .0239450 3.66 0.000 .992240 2.0456331

Aud| .664150 .2031042 3.27 0.000 .427267 .8542320

_cons | .5937442 .1985777 2.99 0.001 .484330 .7212575

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Reg sp bv acc aud d d*bv d*acc d*aud, r

Linear regression Number of obs = 630

F(8, 194) = 635.34

Prob> F = 0.00301

R-squared = 0.5022

Root MSE = 66.2221

| Robust

sp | Coef. Std. Err. t P>|t| [95% Conf. Interval]

bv | .0245611 .0061400 4.00 0.000 .0134239 .0453263

Acc | .0342191 .0100640 3.40 0.000 .0352421 .72323199

Aud | .2654131 .0884710 3.00 0.000 .1421112 .53222345

D | .3762542 .1217651 3.09 0.000 .2150001 .52326250

D*bv | .0432119 .0132961 3.25 0.000 .0052111 .09543630

D*acc| .0534211 .0173450 3.08 0.000 .4653421 . 75633100

D*ud | .3987365 .1324710 3.01 0.000 .3042241 .54232210

_cons | .3256422 .1391631 2.34 0.060 .265342 1.31252

Book value Earnings and dividends

Reg sp bv earn div aud if D1=0, r

Linear regression Number of obs = 378

F(5, 156) = 91.22

Prob> F = 0.0000

R-squared = 0.3025

Root MSE = 7.57651

| Robust

sp | Coef. Std. Err. t P>|t| [95% Conf. Interval]

bv | .05763520 .0182971 3.15 0.001 .0300295 .0774542

earn| .0271131 .0087180 3.11 0.000 .0121271 .0335201

div| .0243332 .0243331 1.00 0.270 .0141325 .0302542

```
         Aud|   .0155312   .0056680     2.74   0.041    .0151332   .0431231
       _cons |   .0227001   .1661151     4.17   0.000    .0100460  .04542874
------------------------------------------------------------------------------
```

Reg sp bv earn div aud if D1=1, r

```
Linear regression                               Number of obs =     378
                                                                  F(5,   156) =   91.22
                                                                  Prob> F     =  0.0000
                                                R-squared     =  0.3890
                                                                  Root MSE    = 9.73831
------------------------------------------------------------------------------
             |               Robust
          sp |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          bv |   .3452880   .1150960     3.00   0.001     .0265022    .0423342
        earn|   .2924540   .0835581   3.50   0.000     .1785241    .4764520
         div|   .0695761   .0223728     3.11   0.000     .0565343    .0824320
         Aud|   .0509541   .0168726     3.02   0.000     .0432256    .4563422
       _cons |   .5783220   .1934195                2.99   0.002     .4291762    .7334522
------------------------------------------------------------------------------
```

Reg sp bv earn div aud d d*bv d*earn d*div d*aud, r

```
Linear regression                               Number of obs =     378
                                                                  F(5,   156) =   91.22
                                                                  Prob> F     =  0.0000
                                                R-squared     =  0.3420
                                                                  Root MSE     = 7.55667
------------------------------------------------------------------------------
             |               Robust
          sp |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          bv |   .05763520   .0182971       3.15   0.001    .0300295    .0774542
        earn|   .0271131    .0087180 3.11   0.000    .0121271    .0335201
          div|   .0243332    .0243331     1.00   0.270    .0141325   .0302542
          Aud|   .0155312    .0056680       2.74   0.041    .0151332   .0431231
           d|   .4542319    .0928900     4.89   0.000     .364322    .5152410
       d*bv |   .2876530    .0962050     2.99   0.000     .136353    .3025242
      d*earn|   .2653411    .0884470     3.00   0.000     .1524363   .4343291
      d*div |   .0452431    .0107720     4.20   0.000     .0353310   .0635353
```

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```
      d*Aud|   .0354231    .0088780     3.99   0.001     .0142254   .0534232
      _cons |   .5556221    .1389060     4.00   0.000     .4234353   .6968740
------------------------------------------------------------------------------
```

Chow test

Using William Gould, StataCorp www.stata.com

Stata

```
clear
set obs 378
set seed 1234
generate ta= uniform()
generate tl = uniform()
generate aud = uniform()
generate sp= 4*ta - 2*tl + 1*aud+ 2*invnormal(uniform())
generate group = 1
save one, replace

clear
set obs 252
generate ta= uniform()
generate tl = uniform()
generate aud = uniform()
generate sp= 4*ta - 2*tl + 1*aud+ 2*invnormal(uniform())
generate group = 2
save one, replace
generate group = 2
save two, replace

use one, clear
append using two

save combined, replace
```

Running for chow test for the Assets and liabilities

Pre and post combine together and pooled data analysis

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. regress sp ta tl aud if group==1

```
      Source |       SS       df       MS              Number of obs =     378
-------------+------------------------------           F(  4,   136) =   27.02
       Model |  116.409101     4  25.221642            Prob > F      =  0.0000
    Residual |  76.592285   123  .32534324            R-squared     =  0.2543
-------------+------------------------------           Adj R-squared =  0.2363
       Total |  121.004419   122  1.3335326            Root MSE      =  .79333

------------------------------------------------------------------------------
          Sp |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ta |   .6746693    .031369     5.09   0.000    . 1881403   .1311984
          tl |  -.0254298    .006641    -3.37   0.000     -.0098862   .0546457
         aud |   .1591100    .031369     5.09   0.000      .1881403   .1311984
       _cons |  .342541     .119620     4.00   0.000      4.23668    4.72026
------------------------------------------------------------------------------
```

. regress sp ta tl aud if group==2

```
      Source |       SS       df       MS              Number of obs =     252
-------------+------------------------------           F(  4,   136) =   54.22
       Model |  126.409101     4  21.225424            Prob > F      =  0.0000
    Residual |  88.5959785   101  .214332             R-squared     =  0.2677
-------------+------------------------------           Adj R-squared =  0.307
       Total |  101.002211   112  1.3722109            Root MSE      =  .12.229

------------------------------------------------------------------------------
          Sp |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ta |   .143141    .029326     6.01   0.000      .2411403  .13764654
          tl |  -.0333241   .005525    -6.07   0.000     -.046352    .0213557
         aud |   .124411    .079294     4.90   0.000      .254363    .1321804
       _cons |  .67121331   .172108     3.90   0.000      .653432    3.647534
------------------------------------------------------------------------------
```

Regress sp ta tl aud group1 group2, non nest

```
      Source |       SS       df       MS              Number of obs =     630
```


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----------+---------- F(4, 136) = 54.22

Model | 122.229101 8 21.22763424 Prob > F = 0.0000

Residual | 88.52285 111 .1272532 R-squared = 0.3633----------+---------- Adj R-squared = 0.3907

Total | 101.087654 1023.372109 Root MSE = .242329

Sp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ta	2133450	.095563	3.01	0.000	.2421303	.13653554
tl	-.2123324	.0475984	-5.07	0.000	-.0566002	.0233357
aud	.3321141	.068060	4.90	0.000	.4327822	.534336
_cons	.542211	.139338	3.90	0.000	.4533252	2.64534

Price Model

. generate g2 = (group==2)

. generate g2ta = g2*ta

. generate g2tl = g2*tl

. generate g2aud = g2*aud

. regress sp ta tl aud g2 g2ta g2tl g2aud

.test g2 g2ta g2tl g2aud

(1) g2 = 0

(2) g2*ta = 0

(3) g2*tl = 0

(4) g2*aud = 0

F(4, 169) =18.08

Prob > F=0.000

Combine model pooled data with coefficient

.test sp ta tl aud d d*ta d*tl d*aud group1 group2, non nest

Source	SS	df	MS	Number of obs = 630
				F(8, 174) = 51.15
Model	204.124448	8	73.195654	Prob > F = 0.0000
Residual	115.2716	165	20.542211	R-squared = 0.4409

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Adj R-squared = 0.89762

Total 501.521946 117 33.7653423 Root MSE = 17.1133

Sp	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
ta	.6746693	.031369	5.09	0.000	. 1881403	.1311984
tl	-.0254298	.006641	-3.37	0.000	-.0098862	.0546457
aud	.1591100	.031369	5.09	0.000	.1881403	.1311984
D	.6746693	.031369	3.00	0.000	. 1881403	.1311984
D*TA	-.0254298	.006641	-3.09	0.000	-.0098862	.0546457
D*TL	.1591100	.031369	6.00	0.000	.1881403	.1311984
D*AUD	.6746693	.031369	5.00	0.000	. 1881403	.1311984
_cons	.1591100	.031369	4.09	0.000	.1881403	.1311984

Coefficient model

.contrast sp d g2*ta g2*tl g2*aud, overall

	df	F	P>F
d	1	3.00	0.000
g2*ta	1	3.09	0.000
g2*tl	1	6.00	0.000
g2*aud	1	5.09	0.000
Overall	**4**	**18.08**	**0.000**
Residual	174		

Return model

.contrast rt d g2*ta g2*lta g2*tl g2*ltl g2*aud, overall

	df	F	P>F
d	1	3.68	0.000
g2*ta	1	3.66	0.000
g2*Lta	1	4.07	0.000
g2*tl	1	2.99	0.000
g2*Ltl	1	4.59	0.000
g2*laud	1	3.98	0.000
Overall	**7**	**18.32**	**0.000**
Residual	287		

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. generate g2 = (group==2)

. generate g2ca = g2*ca

. generate g2fa = g2*fa

. generate g2cl = g2*cl

. generate g2ncl=g2*ncl

. generate g2aud=g2*aud

. regress sp ta la aud g2 g2*ta g2*lta g2*tl g2*ltl g2*aud

.test g2 g2*ta g2*lta g2*tl g2*ltl g2aud

(1) g2 = 0

(2) g2*ta = 0

(3) g2*lta = 0

(4) g2*tl= 0

(5) g2*ltl = 0

(6) g2*laud = 0

F(8, 138) =18.32

Prob > F=0.0000

Price model

Selected assets and liabilities

Summary of Chow test for selected assets and liabilities

. generate g2 = (group==2)

. generate g2ca = g2*ca

. generate g2fa = g2*fa

. generate g2cl = g2*cl

. generate g2ncl=g2*ncl

. generate g2aud=g2*aud

. regress sp ca fa cl nce aud g2 g2ca g2fa g2cl g2ncl g2aud

.test g2 g2ca g2fag2cl g2 ncl g2aud

(1) g2 = 0

(2) g2*ca = 0

(3) g2*fa = 0

(4) g2*cl = 0

(5) g2*ncl = 0

(6) g2*aud = 0

F(8, 138) =18.90

Prob > F=0.0000

Coefficient model

.contrast sp d g2*ca g2*fa g2*cl g2*ncl g2*aud, overall

	df	F	P>F
d	1	3.88	0.000

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g2*ca	1	3.50	0.000
g2*fa	1	2.90	0.001
g2*cl	1	2.65	0.002
g2*ncl	1	3.02	0.001
g2*aud	1	2.95	0.000
Overall	**6**	**18.90**	**0.000**
Residual		195	

Return Model

Selected assets and liabilities

Summary of Chow test for selected assets and liabilities

. generate g2 = (group==2)

. generate g2ca = g2*ca

. generate g2fa = g2*lca

. generate g2cl = g2*fa

. generate g2ncl=g2*lfa

. generate g2ca = g2*cl

. generate g2fa = g2*lcl

. generate g2cl = g2*ncl

. generate g2ncl=g2*lncl

. generate g2aud=g2*laud

. regress sp g2*ca g2*lca g2*fa g2*lfa g2*cl g2*lcl g2*ncl g2*lnce g2*laud

.test g2*ca g2*lca g2*fa g2*lfa g2*cl g2*lcl g2*ncl g2*lnce g2*laud

(1) g2 = 0

(2) g2*ca = 0

(3) g2*lca = 0

(4) g2*fa = 0

(5) g2*lfa = 0

(6) g2*cl = 0

(7) g2*lcl = 0

(8) g2*ncl= 0

(9) g2*lncl= 0

(10) g2*laud = 0

(11) g2*aud = 0

F(11, 221) =33.83

Prob > F=0.0000

Coefficient model

.contrast sp d g2*ca g2*fa g2*cl g2*ncl g2*aud, overall

	df	F	P>F

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d	1	4.00	0.000
g2*ca	1	3.99	0.000
g2*lca	1	3.00	0.001
g2*fa	1	2.99	0.002
g2*lfa	1	3.23	0.001
g2*cl	1	3.00	0.000
g2*lcl	1	3.65	0.000
g2*ncl	1	2.99	0.001
g2*lncl	1	2.98	0.002
g2*laud	1	3.98	0.000
Overall	6	33.83	0.000
Residual		312	

Chow test Income and Expenditure

Chow test

Using William Gould, StataCorp www.stata.com

Stata

```
clear
set obs 378
set seed 1234
generate ta= uniform()
generate tl = uniform()
generate aud = uniform()
generate sp= 4*ta - 2*tl + 1*aud+ 2*invnormal(uniform())
generate group = 1
save one, replace

clear
set obs 252
generate ta= uniform()
generate tl = uniform()
generate aud = uniform()
generate sp= 4*ta - 2*tl + 1*aud+ 2*invnormal(uniform())
```

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generate group = 2

save one, replace

generate group = 2

save two, replace

use one, clear

append using two

save combined, replace

Running for chow test for the Assets and liabilities

Pre and post combine together and pooled data analysis

. regress sp ta tl aud if group==1

```
      Source |       SS       df       MS              Number of obs =     378
-------------+------------------------------           F(  4,   136) =   27.02
       Model |  116.409101     4  25.221642            Prob > F      =  0.0000
    Residual |  76.592285   123  .32534324            R-squared     =  0.2543
-------------+------------------------------           Adj R-squared =  0.2363
       Total |  121.004419   122  1.3335326            Root MSE      =  .79333

------------------------------------------------------------------------------
          Sp |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ta |   .6746693    .031369     5.09   0.000    . 1881403   .1311984
          tl |  -.0254298    .006641    -3.37   0.000    -.0098862   .0546457
         aud |   .1591100    .031369     5.09   0.000     .1881403   .1311984
       _cons |  .342541      .119620     4.00   0.000     4.23668    4.72026
------------------------------------------------------------------------------
```

. regress sp ta tl aud if group==2

```
      Source |       SS       df       MS              Number of obs =     252
-------------+------------------------------           F(  4,   136) =   54.22
       Model |  126.409101    4  21.225424            Prob > F      =  0.0000
    Residual |  88.5959785   101  .214332            R-squared     =  0.2677
-------------+------------------------------           Adj R-squared =  0.307
       Total |  101.002211   112  1.3722109            Root MSE      =  .12.229
```


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Sp	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
ta	.143141	.029326	6.01	0.000	.2411403	.13764654
tl	-.0333241	.005525	-6.07	0.000	-.046352	.0213557
aud	.124411	.079294	4.90	0.000	.254363	.1321804
_cons	.67121331	.172108	3.90	0.000	.653432	3.647534

Regress sp ta tl aud group1 group2, non nest

Source	SS	df	MS	Number of obs =	630
				F(4, 136) =	54.22
Model	122.229101	8	21.22763424	Prob > F =	0.0000
Residual	88.52285	111	.1272532	R-squared =	0.3633
				Adj R-squared =	0.3907
Total	101.087654	1023.372109		Root MSE =	.242329

Sp	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
ta	2133450	.095563	3.01	0.000	.2421303	.13653554
tl	-.2123324	.0475984	-5.07	0.000	-.0566002	.0233357
aud	.3321141	.068060	4.90	0.000	.4327822	.534336
_cons	.542211	.139338	3.90	0.000	.4533252	2.64534

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Price Model

. generate g2 = (group==2)

. generate g2ta = g2*ta

. generate g2tl = g2*tl

. generate g2aud = g2*aud

. regress sp ta tl aud g2 g2ta g2tl g2aud

.test g2 g2ta g2tl g2aud

(1) g2 = 0

(2) g2*ta = 0

(3) g2*tl = 0

(4) g2*aud = 0

F(4, 169) =18.08

Prob > F=0.000

Combine model pooled data with coefficient

.test sp ta tl aud d d*ta d*tl d*aud group1 group2, non nest

Source	SS	df	MS		
				Number of obs	= 630
				F(8, 174)	= 51.15
Model	204.124448	8	73.195654	Prob > F	= 0.0000
Residual	115.2716	165	20.542211	R-squared	= 0.4409
				Adj R-squared	= 0.89762
Total	501.521946	117	33.7653423	Root MSE	= 17.1133

Sp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ta	.6746693	.031369	5.09	0.000	. 1881403	.1311984
tl	-.0254298	.006641	-3.37	0.000	-.0098862	.0546457
aud	.1591100	.031369	5.09	0.000	.1881403	.1311984
D	.6746693	.031369	3.00	0.000	. 1881403	.1311984
D*TA	-.0254298	.006641	-3.09	0.000	-.0098862	.0546457
D*TL	.1591100	.031369	6.00	0.000	.1881403	.1311984
D*AUD	.6746693	.031369	5.00	0.000	. 1881403	.1311984
_cons	.1591100	.031369	4.09	0.000	.1881403	.1311984

Coefficient model

.contrast sp d g2*ta g2*tl g2*aud, overall

	df	F	P>F
d	1	3.00	0.000
g2*ta	1	3.09	0.000
g2*tl	1	6.00	0.000
g2*aud	1	5.09	0.000
Overall	**4**	**18.08**	**0.000**
Residual	174		

Return model

.contrast rt d g2*ta g2*lta g2*tl g2*ltl g2*aud, overall

	df	F	P>F
d	1	3.68	0.000
g2*ta	1	3.66	0.000
g2*Lta	1	4.07	0.000
g2*tl	1	2.99	0.000
g2*Ltl	1	4.59	0.000
g2*laud	1	3.98	0.000
Overall	**7**	**18.32**	**0.000**
Residual	287		

. generate g2 = (group==2)

. generate g2ca = g2*ca

. generate g2fa = g2*fa

. generate g2cl = g2*cl

. generate g2ncl=g2*ncl

. generate g2aud=g2*aud

. regress sp ta la aud g2 g2*ta g2*lta g2*tl g2*ltl g2*aud

.test g2 g2*ta g2*lta g2*tl g2*ltl g2aud

(1) g2 = 0

(2) g2*ta = 0

(3) g2*lta = 0

(4) g2*tl= 0

(5) g2*ltl = 0

(6) g2*laud = 0

F(8, 138) =18.32

Prob > F=0.0000

Price model

Selected assets and liabilities

Summary of Chow test for selected assets and liabilities

. generate g2 = (group==2)

. generate g2ca = g2*ca

. generate g2fa = g2*fa

. generate g2cl = g2*cl

. generate g2ncl=g2*ncl

. generate g2aud=g2*aud

. regress sp ca fa cl nce aud g2 g2ca g2fa g2cl g2ncl g2aud

.test g2 g2ca g2fag2cl g2 ncl g2aud

(1) g2 = 0

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(2) g2*ca = 0

(3) g2*fa = 0

(4) g2*cl = 0

(5) g2*ncl = 0

(6) g2*aud = 0

F(8, 138) =18.90

Prob > F=0.0000

Coefficient model

.contrast sp d g2*ca g2*fa g2*cl g2*ncl g2*aud, overall

	df	F	P>F
d	1	3.88	0.000
g2*ca	1	3.50	0.000
g2*fa	1	2.90	0.001
g2*cl	1	2.65	0.002
g2*ncl	1	3.02	0.001
g2*aud	1	2.95	0.000
Overall	**6**	**18.90**	**0.000**
Residual	195		

Return Model

Selected assets and liabilities

Summary of Chow test for selected assets and liabilities

. generate g2 = (group==2)

. generate g2ca = g2*ca

. generate g2fa = g2*lca

. generate g2cl = g2*fa

. generate g2ncl=g2*lfa

. generate g2ca = g2*cl

. generate g2fa = g2*lcl

. generate g2cl = g2*ncl

. generate g2ncl=g2*lncl

. generate g2aud=g2*laud

. regress sp g2*ca g2*lca g2*fa g2*lfa g2*cl g2*lcl g2*ncl g2*lnce g2*laud

.test g2*ca g2*lca g2*fa g2*lfa g2*cl g2*lcl g2*ncl g2*lnce g2*laud

(1) g2 = 0

(2) g2*ca = 0

(3) g2*lca = 0

(4) g2*fa = 0

(5) g2*lfa = 0

(6) g2*cl = 0

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(7) g2*lcl = 0

(8) g2*ncl= 0

(9) g2*lncl= 0

(10) g2*laud = 0

(11) g2*aud = 0

F(11, 221) =33.83

Prob > F=0.0000

Coefficient model

.contrast sp d g2*ca g2*fa g2*cl g2*ncl g2*aud, overall

	df	F	P>F
d	1	4.00	0.000
g2*ca	1	3.99	0.000
g2*lca	1	3.00	0.001
g2*fa	1	2.99	0.002
g2*lfa	1	3.23	0.001
g2*cl	1	3.00	0.000
g2*lcl	1	3.65	0.000

A

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