THE EFFECTS OF CHANGES IN ACCOUNTING STANDARDS ON EARNINGS MANAGEMENT OF MALAYSIA AND NIGERIA BANKS

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ABSTRACT: The objective of this study is to investigate the effects of changes from Malaysia and Nigeria previous accounting standards to IFRSs-based standards on earnings management of Malaysia and Nigeria banks. Limited studies on the association between IFRS and earnings management in emerging economies and the continuous exclusion of financial institutions from samples of prior studies motivated this study to acquire the banking sector of two emerging countries – Malaysia and Nigeria in order to investigate whether changes in Malaysia and Nigeria accounting standards affects earnings management activities. Hence, this study used a sample of 23 banks representing 8 Malaysian banks and 15 Nigerian banks for a study period of 4 years (2009-2012). This study modified the Jones (1991) model to investigate earnings management in the banking sector. The modified Jones model is able to investigate earnings management in the banking sector. MFRSs and IFRSs impact more significantly and positively on the quality of accounting information of banks than the previous FRSs and SASs respectively for Malaysia and Nigeria. Specifically, the accrual and earnings quality of Nigerian banks has improved by approximately 41% and Malaysia banks 12.6% during the IFRSs/MFRSs adoption era. This study therefore recommends that globally, IFRSs should be adopted as the standard for the preparation and reporting of financial statements.

KEYWORDS: Accounting Standards, IFRSS, MFRSS, Earnings Management, Discretionary Accruals, Non-Discretionary Accruals, Total Accruals, Jones Model

INTRODUCTION

Purpose of Study
The main purpose of this study is to empirically investigate the effects of changes in Malaysia and Nigeria accounting standards on earnings management in a sample of 23 Malaysia and Nigeria banks. More specifically, this study investigates whether there has been a significant change in earnings management in Malaysia banks following the change in Malaysia accounting standards from Financial Reporting Standards (hereafter referred to as FRSs) to International Financial Reporting Standards (hereafter referred to as IFRSs) to International Financial Reporting Standards (hereafter referred to as IFRSs)-based Malaysia Financial Reporting Standards (hereafter referred to as MFRSs). This study equally investigates whether there has been a significant change in earnings management in Nigeria banks following the change in Nigeria accounting standards from Statement of Accounting Standards (hereafter referred to as SASs) to International Financial Reporting Standards (hereafter referred to as IFRSs).
Overview of Accounting Standards and Earnings Management

In recent years several financial and accounting scandals have risen, all above Enron and Worldcom in the United States. Chen (2012) affirmed that incidents of corporate frauds in the form of false financial reporting, irregular transactions, inflated revenues and assets embezzlement have been on the increase world over. The resultant effects of these gross accounting violations are disastrous and have created ripple in the corporate world. The public and especially investors have lost confidence and trust in financial reporting, management team along with their accounting decisions (Anja, 2008). Ultimately, it has led to the global collapses of many high profile businesses (Elisa, et al., 2006).

The above financial reporting frauds are commonly discussed in this literature by the terms income smoothing, big bath accounting, creative accounting, aggressive accounting, window dressing or generally earnings management (Rolland, 2012). Consistent with Healy and Wahlen (1999) earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company, or to influence contractual outcomes that depend on reported accounting numbers. Consequently, earnings management erodes the value-relevance and reduces the reliability of financial statements information. Whelan (2004) indicate that the value-relevance of earnings is expected to be lower for earnings management firms than for non-earnings management firms. Hodge (2003) examined the association between lower perception of earnings quality and reliance on audited reports and showed simultaneous decrease in perceived earnings and perceived reliability of audited financial information.

Firms generally use allowances, accounting choices, opportunities and flexibilities provided in accounting standards to manipulate and manage financial reports. Kai (2011) posits that managers may use the flexibility in the GAAP to misstate the accounting numbers. He described “within-GAAP earnings management” as a situation where managers exploit the flexibility allowed by the accounting principles in the GAAP to smooth earnings. Amrik (2004) affirmed that earnings management may arise where managers have flexibility and alternatives in choosing from a set of accounting policies (within the context of financial reporting) to respond to changing business circumstances. Goncharov and Zimmermann (2007) studied whether accounting standards influence the level of earnings management and equally showed that a different amount of accounting choices and flexibilities embedded in different accounting standards influences the level of earnings management. However, Yang (2012) investigated the effects of the convergence of Chinese GAAP with IFRSs on earnings management of Chinese listed companies and demonstrated that flexible accounting standards do not increase the accrued earnings management in China.

One common ground from the above arguments is that differences in quality of accounting standards, fundamentally, play a role in differences in earnings quality and value relevance of accounting numbers. Quality of accounting standards influences the users’ perception of quality of financial information. High quality accounting standards reduce earnings management and information asymmetry between managers, owners and other users of financial reports and enhance the value-relevance and reliability of financial information.
Better quality financial information, as a result, will mitigate the agency problem between contracting parties (Etty, 2005). Ball, Robin and Wu (2003) argue that adopting high quality standards might be a necessary condition for high quality information, but may not necessarily guarantee high-quality financial reporting.

Changes in accounting standards are expected to influence the reporting habits and outcomes. According to Anja (2008) introducing new standards or changes in standards is usually aimed at improving the accuracy, comparability and uniformity of accounting numbers across firms and economies. Hence, the global adoption to or convergence with IFRSs is considered likely important determinant of the quality of accounting information (Houqe, Zijl, Dunstan and Karim, 2012). Arum (2013) investigating the impacts of the implementation of IFRSs on the quality of financial statement information in Indonesia strongly posits that the adoption of IFRSs is expected to result to better, more relevant and reliable financial reporting quality capable of reducing moral hazard in the financial statements to conduct earnings management through accrual policy. Ewert and Wagenhofer (2005) examined the economic impacts of tightened accounting standards on earnings management and found a decrease in accounting earnings management and an increase in earnings quality.

Ashbaugh and Pincus (2001) in Etty (2005) showed that differences in different country accounting standards relative to IFRSs and earning forecast errors of analysts are positively related. This means that the smaller the differences between national accounting standards and IFRSs, the smaller the earnings forecast errors and the opposite holding true for a larger difference. Also following the mandatory implementation of IFRSs in Indonesia, Arum (2013) examined the impacts of IFRSs adoption on the quality of financial statement information in Indonesia using earnings management, timely loss recognition, and value relevance of accounting information as proxies and indicated that the implementation of IFRS has an effect to decreased the scope of earnings management and increased the value relevance of accounting information. Malaysia convergence with and Nigeria adoption to IFRSs can be seen as a way to tighten accounting standards in order to diminish the manipulation of accounting numbers. Hence, the figure below explains the prediction that the adoption of a high quality standard such as IFRSs will improve the quality of financial statement information by reducing the scope and magnitude of earnings management.

![Figure 1](image-url)
Motivations for Study and Statement of Problem
IFRSs issued by the Financial Accounting Standards Board (hereafter referred to as FASB) have been developed to ensure consolidation and harmonization of corporate accounting practice and to answer the need for high quality standards to be adopted in the world’s global and international capital markets (Van Tendeloo and Vansrealen, 2005). However, inconclusive views exist on the development, adoption, and application of IFRSs as a single set of high-quality global accounting standards. The proponents of single set of global accounting standards (IFRSs adoption) assert that financial statements prepared in accordance with a nations local accounting standards may hardly meet the global needs of investors, business partners, financiers decision-makers among other users of financial statements (Antwi, 2010). Some proponents equally maintain that a single set of global standards will ensure similarities in the treatment of transactions world over, resulting in globally comparable financial statements (Beke, 2011). Tokar (2005) also posits that global convergence with single set of accounting standards would result in the use of the same conventions to measure and report financial position and financial performance of firms in different capital markets as differences in conventions might impact the data available for making investment decisions affecting the investment decisions themselves. Tweedie and Seidenstein (2005) indicate that a single global accounting standard ensure comparability of financial results of diverse companies, the elimination of a major investment risk relating to understanding different national accounting regimes and the creation of more opportunities for diversification and improved investment returns.

Notable opponents of a single set of global accounting standards are Nobes (2006), Kvaal and Nobes (2010). They identified many opportunities for variation in practices under IFRSs and accorded support for different national accounting standards profiles. Oseni, Iregah and Ali-Momoh (2011) suggests that a single set of global accounting standards would not be flexible enough and might likely not be able to cater for the diverse national circumstances including legal, economic and cultural differences. Černe (2012) examining factors that influence country’s accounting system, evidenced interdependency of accounting system and its environment. Chen et al. (2010) posits that accounting standards in two countries need not be the same giving consideration to features of local business environments and institutional framework. Holthausen (2009) affirmed that to the extent that IFRSs enforcement varies substantially across countries, would result in corresponding wide variation in financial reporting outcomes. Some opponents equally suggest that a single set of global accounting standard will be costly and that the benefits of comparability may not be realized due to disparities in the application across countries (Soderstrom and Sun, 2007; Kvaal and Nobes, 2010; Hail, Leuz and Wysocki, 2010a, 2010b).

In spite of the numerous studies about the adoption of IFRSs by Europeans, developed and industrialized countries around the world, less attention has been given to developing countries. Palea (2013) and Paglietti (2009) studied the effects of IFRSs adoption on the quality of financial reporting focusing on European Union. Steve, William and Changjiang (2013) used German market to examine the relative benefits of convergence U.S. GAAP with IFRSs. Brochet, Jagolinzer and Riedl (2011) employed firms domiciled in the UK to examine the effects of mandatory IFRS adoption on financial statement comparability. Kamran and Manzurul (2012) focused on Australia to investigate the effect of IFRSs adoption on the
financial reports of local government entities. Virtually, no articles and books about the impacts of changes in Malaysia and Nigeria accounting standards on earnings management in Malaysia and Nigeria banks as developing countries exist.

This is an important gap in this literature given evidences that emerging markets are substantially different from developed markets in terms of the nature, direction, magnitude and processes of operation of their financial markets resulting from differences in their economic, social, regulatory framework and market behaviour (Rashid and Islam, 2008), institutional, organisational and market aspects of the economy and society (Hofstede and Hofstede, 2004), independence of supervisory and regulatory authorities (Bergh, 2002), government domination of banking systems (Gibson, 2003; Lins, 2003) including state governments ownership (Claessens, Djankov and Lang, 2000; Shleifer and Vishny, 1997; Thillainathan, 1998).

Controversies equally exist over the suitability of applying IFRSs and ability of IFRSs to deter management opportunistic behaviour in developing countries. There exist two schools of thought in this area. The first opposes the use of IFRSs in developing countries by arguing that the characteristics of local business environments and institutional frameworks determine the form and contents of accounting standards (Erick, 2011; Chen et al., 2010). The second indicates that IFRSs provides more opportunities for managers to use accruals to manipulate earnings in developing countries while in developed countries IFRSs limits flexibilities and accounting choices. Rudra and Bhattacharjee (2011) findings is of immense concern to regulators and accounting experts about the effectiveness of IFRS in reducing opportunistic earnings management in an emerging economy as they provide evidence that Indian firms adopting IFRSs are more likely to smooth earnings compared to non-adopting firms. The above results contradict most of the previous findings based on developed countries.

In Malaysia, the Roadmap toward IFRS Adoption was announced on 19 November, 2011. According to the Roadmap the adoption of IFRS is mandatory for all publicly listed companies from 1 January, 2012. Similarly, on 28 July, 2010, Nigeria approved 1 January 2012 as the effective date for convergence with IFRSs. The questions capital market participants usually ask: what are the effects of the changes in accounting standards on accounting quality? Answers to these questions critically depend upon whether the current MFRSs/IFRSs are of higher or lower quality than Malaysia and Nigeria domestic FRSs/SASs. By a higher quality standard this study means a standard that either reduces managerial discretion over accounting choices or inherently disallows smoothing or overstatement of earnings. If MFRSs/IFRSs are of higher quality than previous Malaysia and Nigeria domestic FRSs/SASs and they are appropriately enforced, then this study expects mandatory adoption of MFRSs/IFRSs to improve accounting quality. On the other hand, if MFRSs/IFRSs are of lower quality than previous Malaysia and Nigeria domestic FRSs/SASs then this study would expect them to reduce accounting quality.

It is pertinent to observe that nearly all experts on accounting standards and accounting quality focus mostly on manufacturing sales based firms as samples. Arifin and Kusuma (2011) presenting evidences of the effects of different accounting standard on earnings management restricted their sample to all U.S and German manufacturing firms. Mohammad et al. (2013)
used 107 listed non-financial companies on the Tehran Stock Exchange to investigate the impact of setting and executing accounting standards on earnings management. Martijn (2011) investigating whether the adoption of IFRS by privately held companies from the United Kingdom in 2009 influences the extent of earnings management excluded companies from financial institutions because the specific requirements for the financial statements of financial institutions differ substantially from those of the other companies. Himma (2013) used manufacturing companies listed on Indonesia Stock Exchange 2009-2011 period to investigate the impact of earnings management on the value-relevance of earnings and book value.

In a related development, previous studies that employed accrual quality as proxy for earnings management consistently excluded financial institutions and utility companies from their sample framework (see Mendes, Rodrigues and Esteban, 2012; Majoor and Vanstraelen, 2006; Lenard and Bing, 2012; Kabir, Sharma, Islam and Salat, 2011; Anderson, Woodhouse, Ramsay and Faff, 2009; Jalil and Rahman, 2010). Yang (2012) chooses manufacturing companies as study sample to investigate earnings management of Chinese listed companies. Dechow, Hutton, Kim and Sloan (2012) providing a new approach to testing for accrual-based earnings management excluded financial firms because working capital is less meaningful for these companies. Gunny (2010) investigating the relation between earnings management using real activities manipulation and future performance excluded firms in the financial industry and utility industry because these firms operate in highly regulated industries with accounting rules that differ from other industries.

With common agreement by experts on earnings management affirming that the Jones (1991) model is the best in investigating discretionary accruals (Tianran, 2012; Bae, Hamao and Kang, 2009; Sharifah, Nor, Noor and Fatima, 2012), nearly all previous studies in this area used the popular Jones (1991) model to decompose total accruals into its non-discretionary and discretionary components (Mohammady, 2012; Habib, 2004; Chen, Lin and Zhou, 2005; He, Yang and Guan, 2010). However, Jones (1991) used a manufacturing sample to develop what has been widely known as the Jones earnings management model. Therefore, measures of earnings management based on the model need to be modified for banks or other financial institutions that are not engaged in sales-based businesses another fundamental motivation for this study (Cohen, Cornett, Marcus and Tehranian, 2014)

These are important gaps in this literature giving consideration to evidences that financial institutions particularly banking sector play a dominant role in the financial sector and machinery for economic advancement (Were and Wambua, 2013; Aniekan and Sikiru, 2010; Levine, 1999) yet researchers found evidence of earnings management in banking for quite some time (Iannotta and Kwan, 2013). Diantimala and Baridwan (2012) providing answers as to whether the Indonesian SFAS 50 and 55 (Revised 2006) could reduce earnings management of commercial banks in Indonesia demonstrated that firm’s managers, including bank managers, manage their reported earnings for many different purposes. Flannery, Kwan and Nimalendran (2013) investigating the 2007–2009 financial crisis and bank opaqueness painfully questioned the reasonability of transparency of financial institutions and specifically opined that the possibility that banking firms are ‘‘opaque’’ has played a central role in the financial crisis.
Therefore, the effects of changes in accounting standards from previous Malaysia and Nigeria domestic FRSs/SASs to IFRSs-based standards on earnings management in Malaysia and Nigeria banks is an empirical question that employ investigation figure presented below:

**Significance of Study**

Regulators, standards setters and policy makers are concerned about the impact that changes from Malaysia and Nigeria previous accounting standards to IFRSs-based standards might have on the quality of financial statement information of firms. This study will provide relevant information and promote understanding to regulatory and supervisory agencies Malaysia Accounting Standard Board, Nigeria Financial Reporting Council, Bank Negara Malaysia, Central Bank of Nigeria, Securities Commission, Bursa Malaysia and the Malaysian Institute of Corporate Governance for a number of reasons.
Through issuance of a set of high quality financial reporting standards, the IASB has attempted to prevent earnings management (Lei, Asheq and Stephen, 2008). One aim of IASB is to improve the transparency and comparability of financial reporting across countries. This study would also be informative to the FASB, which sets the accounting standards that are designed to remove many allowable accounting alternatives expected to limit the managements’ discretion to manipulate earnings, thereby improving earnings quality. This is achievable through the instrumentality of country specific standards setting bodies such as MASB and FRCN.

Global adoption to or convergence with IFRSs has been one of the most controversial, costly, and complex standards projects implemented by the Board. This study will be useful to the FASB in assessing country behaviour, changes in country responses to the adoption and a vetting process for IFRSs in Nigeria and Malaysia. More specifically, adoption to or convergence with IFRSs should enable the FASB to observe changes in the use of discretionary accounting choices, evaluate the impacts of IFRSs on earnings and value relevance and reliability of accounting information.

Earnings management and the use of flexibilities in accounting standards have been the focus of Malaysia and Nigeria Security Exchange Commissions’ attention. Earnings management can potentially lead to misleading/low value relevant financial statements as illustrated by the recent cases of fraudulent reporting, accounting scandals that have eroded public confidence in the quality and accuracy of external financial reporting.

Generally, the SEC also has a key role in enforcing IFRSs because it touches on the SEC's own agenda, which is transparency of financial statements and potential manipulation of earnings. In addition, it is the role of the SEC to control insider trading, to promote prompt disclosures, to reduce information asymmetry, and to improve the efficient operation of the securities markets (Amrik, 2004). Through various speeches by SEC officials, the agency has indicated that it will review filings to ensure that firms are strictly and fully compliant with all the disclosure requirements of IFRSs. Given that financial reporting is used to communicate management information to investors, financial analysts, managers and auditors and creditors among others, these actions by the SEC indicate that the results of this study would be relevant and informative to the SEC.

In addition, financial information is used to assess the firm’s financial position in order to forecast the firm’s future prospects. The users of financial statements use the outcome from the analysis of financial statements in decision making. This study should also help regulators including country specific accounting standards setters (MASB and FRC) determine if IFRSs is being implemented as intended with full disclosures so that financial statement users will have relevant information to understand factors that influence the quality of financial statements information which will in turn moderate dependence on financial statement figures and build confidence in decision making (Yunos, 2011).

This study is timely and is the first study to-date to empirically investigate the effects of the changes in Malaysia and Nigeria accounting standards on earnings management in Malaysia and Nigeria banks. By using control periods from before and after IFRSs/MFRSs adoption, this
study identifies unexpected changes that are associated with changes in the standards. Many previous studies examined the link between accounting standards and quality of financial reports focusing on multi-sales based industries and seldom provide cross country comparisons. Thus, we offer the advantage of cross country comparative panel data methodology by examining a more detailed and extensive data so that the results can be generalised and provide meaningful interpretations giving considerations to regional trends and developments.

Furthermore, no research has directly modified the Jones (1991) model using banking industry. Therefore this study provides new evidence about modifications to the Jones model in investigating earnings management of banks.

**Formulation of Hypotheses**

Mohammad et al. (2013) defined Accounting standards as dominant rules on state of accountancy as a profession and guidelines for professionals. Accounting standards as defined by Financial Reporting Act 1997: “Statements of accounting practices used for the preparation of financial statements”. They are methods or approaches to preparing accounts which has been chosen and established by accounting professional bodies overseeing the profession. In other words, accounting standards are documented or written rules that accountants follow to prepare financial statements of a corporate firm. From the above, it could be deduced that in a reporting ecosystem, accounting standards represents input sub-system while financial statements represents output sub-system as presented below:

![Figure 3](image)

The Malaysia and Nigeria change from their previous accounting standards to adoption to or converged with IFRSs-based standards has raised concerns about the effects of the changes on earnings management in Malaysia and Nigeria banks. Lei, Asheq and Stephen (2008) affirmed that global adoption IFRSs is expected to improve accounting quality In this study, we examine the question of whether IFRSs adoption or convergence deters or encourages greater earnings management (smoothing) thereby enhancing or reducing the value-relevance and reliability of financial statements information of banks.

Opponents of IFRSs adoption posit that greater flexibility in IAS/IFRS standards has led to greater earnings management (smoothing) under IFRS reporting regime (Capkun, Collins and Jeanjean 2012). Li and Park (2012) evidenced that Chinese firms do more earnings management after IFRS adoption than before IFRS adoption period. However, Wolfgang, Petra and Georg (2008) observed from their studies on the association between earnings management and local versus international accounting standards that companies applying IAS/IFRS experience less earnings management than firms applying domestic standards. Lei, Asheq and
Stephen (2008) in their study on the effect of IFRS on earnings management showed that IFRSs adoption countries exhibit minimal earnings management. Therefore, to determine whether the Malaysia and Nigeria changes in accounting standards has affected earnings management of Malaysia and Nigeria banks, this study predicts that application of IFRSs is associated with higher accounting quality than Nigeria and Malaysia domestic accounting standards hence, proposing the following hypothesis (in alternative form):

**H1A** Change in Malaysia accounting standards from FRSs to MFRSs is not likely to impact significantly on earnings management of Malaysia banks.

**H1B** Change in Nigeria accounting standards from SASs to IFRSs is not likely to impact significantly on earnings management of Nigeria banks.

### Data and Descriptive Statistics

**Sample Selection**
The sample used in this study is restricted to eight Malaysian banks and fifteen Nigerian banks. Nigeria has a total of about twenty four banks but foreign banks and banks with missing data were excluded bringing the number of Nigeria banks used to fifteen. Therefore, the total number of banks used for this study is twenty three.

**Investigation Period**
The study period is four years made up two years pre adoption period (2009 and 2010) and two years (2011 and 2012) post adoption period. Though 2012 is the full adoption year for both Nigeria and Malaysia, 2011 is considered a post adoption period because it is the transition year statutorily requiring all 2011 annual reports to be restated to IFRSs/MFRSs based reports. Thus, the IFRSs/MFRSs restated reports are considered to be post adoption reports. This study is restricted to equal two years pre and post adoption periods because most entities including banks in Malaysia and Nigeria are yet to publish their 2013 annual reports.

Data from banks’ financial statements are used to construct a proxy for banks’ accounting quality. Data for overall operations are used rather than segment data because the segment data do not provide enough information to compute an estimate of banks’ earnings management i.e accruals as proxy for accounting information quality. A total of ninety two banks annual financial data (that is four annual financial reports and observations for each bank) were used for this study.

**Earnings Management**
This study in agreement with Jones (2011) defines earnings management as involving the use of the flexibility within accounting to manage the accounts in order to deliver a predetermined profit or achieve a specific objective. The definition of earnings management provided by Healy and Wahlen (1999) and Williams (2004) including recent studies describes both accounting and non-accounting techniques that can be used to manipulate earnings otherwise referred to as attributes of earnings. These attributes include: accrual quality, persistence, predictability, smoothness, reliability, relevance, timeliness, and conservatism (Sora, 2007; Francis, LaFond, Olsson and Schipper, 2004; Biddle and Hilary 2006; Wang 2006).
It is pertinent to note that the aforementioned attributes of the quality of earnings may be mutually inconsistent or overlapping and they are not separately measured. These attributes are all intertwined (Sora, 2007). Revsine, Collins and Johnson (1999) and Bodie Kane and Marcus (2002) stated that low levels of accruals result in the higher persistence and predictability of earnings. Studies such as Leuz, Nanda and Wysocki (2003), Lang, Raedy and Yetman (2003), and Dechow (1994) measured earnings management using accruals and smoothness. Hodge (2003) explores that more managed earnings do not faithfully represent true economic earnings and thus result in less value relevance of financial information. Hunton, Libby and Mazza (2006) indicate that greater transparency reduces earnings management, and Ball, Kothari and Robin (2000) believe that transparency can be captured by timeliness and conservatism.

Therefore, in agreement with Jones (1991), Jorion, Shi and Zhang (2009) among others earnings management can be achieved by various means such as the use of accruals, changes in accounting methods and changes in capital structure (e.g. debt defeasance, debt-equity swaps). More specifically, Jones (1991) reported that discretionary accruals are used as measures of managers’ earnings manipulations during import relief investigations. Previous studies such as DeAngelo (1986), Healy (1985), McNichols and Wilson (1988), Jones (1991) which use some type of discretionary accruals measure, discuss the partitioning of total accruals into discretionary and nondiscretionary components. Consequently, this study focuses on total accruals as the source of earnings management.

Consistent with Jones (1991) the discretionary portion of total accruals is used in this study to capture earnings management rather than the discretionary portion of a single accrual account (as used in McNichols and Wilson (1988)) because total accruals should capture a larger portion of managers’ manipulation. Also, consistent with Dabor and Adeyemi (2009); Collins and Hribar, (2002); William (2004); Keefe (2012); Ilanit (2007) and Dechow and Ge (2006) Total Accruals (TA) are calculated by subtracting operating cash flows from profit before tax and extraordinary items for bank \( j \) at time \( t \) using details from cash flow statements and income statements of banks.

**Descriptive Statistics**

The descriptive statistics presented in here are based on the expectations model used by DeAngelo (1986). DeAngelo used total accruals from a prior period \( (t-k) \) as a measure of the “normal” total accrual. She defines “abnormal” total accrual \( (\Delta TA) \) as the difference between total accruals and normal total accruals, which in turn, can be separated into discretionary and nondiscretionary accruals. This study decomposes total accruals into nondiscretionary and discretionary components by regressing total accruals on change in gross earnings minus net loans and property, plant and equipment.

In alliance with Jones (1991) gross earnings \( (GE) \) are used to control for the economic environment of the bank because they are an objective measure of banks’ operations before managers’ manipulations, but they are not completely exogenous. In addition, changes in net loans \( (\Delta NL) \) is subtracted from changes in gross earnings \( (\Delta GE) \) in order to capture the impact of banks’ most significant component of accounting transactions and operations susceptible to managers’ manipulation on changes in gross earnings \( (\Delta GE) \). Bushman and Williams (2012), Valahzaghard and Samadi (2013), Rolland (2012), Beck and Narayanamoorthy (2012),
Molenaar (2010) and Wall and Kock (2000) affirmed that banks do use their reporting discretion over loan loss provisions (LLP) to smooth earnings. Property, plant and equipment is included to control for the portion of total accruals related to nondiscretionary depreciation expense. All variables in the accruals expectations model are scaled by lagged assets to reduce heteroscedastic.

Table 1 summarises all the variables used by the expectation model that accounts for economic circumstances of banks. Total accruals exhibit positive mean and median for the different reporting period except for the Nigeria post IFRSs adoption period. Changes in gross earnings (ΔGE) minus changes in net loans (ΔNL) exhibit negative mean and median for the two samples and the different reporting era. This is an indication that changes in net loans (ΔNL) averagely were higher than changes in gross earnings (ΔGE) for the two samples and the different period. Property plant and Equipment (PPE) has positive mean and median for both samples and considering the reporting periods.

Table 1

<table>
<thead>
<tr>
<th>Period</th>
<th>Mean</th>
<th>Median</th>
<th>Max</th>
<th>Min</th>
<th>Std. Dev.</th>
<th>Skewness</th>
<th>Kurtosis</th>
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<tbody>
<tr>
<td>Nig. Pre</td>
<td>TA</td>
<td>0.116519</td>
<td>0.02305</td>
<td>2.06533</td>
<td>-0.2553</td>
<td>0.42752</td>
<td>3.60458</td>
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<td></td>
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<td>1.22004</td>
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<td>1.05396</td>
<td>-3.091</td>
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<tr>
<td></td>
<td>PPE</td>
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<td>0.0438</td>
<td>0.11022</td>
<td>0.00273</td>
<td>0.02486</td>
<td>0.69777</td>
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<tr>
<td>Nig. Post</td>
<td>TA</td>
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<td>-0.0083</td>
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<td>0.08463</td>
<td>0.01264</td>
<td>0.01833</td>
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<td>Mal. Pre</td>
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Source: Compiled by the Researcher

Decomposition of Total Accruals into its Non-Discretionary and Discretionary Accruals Components

Ronen and Yaari (2008) explain that accruals are the result of the discrepancy (time lag) between the timing of cash flows and the timing of the accounting recognition of a transaction. Accruals are thus the difference between net profit (earnings) and cash flow from the operational result in a certain period (Badloe, 2011). According to Ronen and Yaari (2008) there are two types of accruals, namely, normal accruals (often referred to as expected or non-discretionary accruals) which are accruals that “arise from transactions made in the current
period that are normal for the bank given its performance level and business strategy, industry conventions, macro-economic events and other economic factors” and abnormal accruals (or unexpected or discretionary accruals) which are accruals that “arise from transactions made or accounting treatments chosen in order to manage earnings” and thus a reflection of earnings management and inverse measurement of earnings quality (Mohammady, 2012).

**Accruals Model**

The descriptive statistics presented in table 1 above can be interpreted as support for the earnings management hypothesis only if one assumes that the difference between current and prior year accruals is due solely to changes in discretionary accruals because non-discretionary accruals are assumed to be constant from period to period. Therefore, tests of earnings management hypothesis are based on the estimate of discretionary accruals, \( u_{ip} \), during the pre and post IFRSs/MFRSs adoption periods.

The following modified regression equation is used to obtain estimates of non-discretionary accruals (NA) and discretionary accruals (DA):

\[
TA_{jt}/AST_{jt-1} = \left[ a_0 \left( 1/AST_{jt-1} \right) + a_{1,i} \left( \Delta GE_{jt/AST_{jt-1}} - \Delta NL_{jt/AST_{jt-1}} \right) + a_{2,i} \left( PPE_{jt}/AST_{jt-1} \right) \right] + e_{jt} \quad \text{..... (i)}
\]

Where

- \( TA_{jt} \) is total accruals of bank \( i \) calculated as the difference between profit or loss before taxation, exceptional and extraordinary items and operating cash flows for year \( t \);
- \( AST_{jt-1} \) is assets at the beginning of the year;
- \( \Delta GE_{jt} \) is the change in Gross earnings from year \( t-1 \) to \( t \);
- \( \Delta NL_{jt} \) is the change in the analysis of total loans and advances and non-performing loan from year \( t-1 \) to \( t \);
- \( PPE_{jt} \) is gross property, plant, and equipment;
- \( j = 1 \ldots 15 \) banks index for Nigeria sample and \( 1 \ldots 8 \) bank index for Malaysia sample;
- \( e_{jt} \) is the error term or residual indicating discretionary accruals.

Following Jones (1991) one method of testing the overall significance of manager’s discretionary accrual is to compute a standardized prediction error similar to that used by Patell (1976). For each prediction error, an estimated standard deviation \( u_{ip} \) is calculated. The regression equations are estimated over two available years (2009, 2010) prior to the adoption of IFRSs/MFRSs and two available years (2011, 2012) after IFRSs/MFRSs adoption. Non-discretionary accruals (NA) are predictions based on the estimated regression coefficients from the above equation. Discretionary accruals (DA) are the related prediction error.

Table 2 presents the non-discretionary accruals (NA) and discretionary accruals (DA) for pre IFRSs/MFRSs adoption and post IFRSs/MFRSs adoption periods.
Table 2
Pre and Post IFRSs/MFRSs Bank’s Nondiscretionary and Discretionary Accruals

<table>
<thead>
<tr>
<th>Bank</th>
<th>Pre Adopt Nigeria DA</th>
<th>Pre Adopt Nigeria NA</th>
<th>Post Adopt Nigeria DA</th>
<th>Post Adopt Nigeria NA</th>
<th>Pre Adopt Malaysia DA</th>
<th>Pre Adopt Malaysia NA</th>
<th>Post Adopt Malaysia DA</th>
<th>Post Adopt Malaysia NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.05984</td>
<td>0.237819</td>
<td>-0.01682</td>
<td>0.145789</td>
<td>-0.0201</td>
<td>0.046243</td>
<td>-0.01394</td>
<td>0.041676</td>
</tr>
<tr>
<td>2</td>
<td>-0.19955</td>
<td>0.291744</td>
<td>0.000626</td>
<td>0.145696</td>
<td>-0.07033</td>
<td>0.053611</td>
<td>-0.01885</td>
<td>0.043732</td>
</tr>
<tr>
<td>3</td>
<td>0.051711</td>
<td>0.237924</td>
<td>0.017095</td>
<td>0.154157</td>
<td>-0.06542</td>
<td>0.054808</td>
<td>-0.02267</td>
<td>0.046275</td>
</tr>
<tr>
<td>4</td>
<td>0.03475</td>
<td>0.238444</td>
<td>-0.00632</td>
<td>0.142889</td>
<td>-0.00949</td>
<td>0.050502</td>
<td>0.014641</td>
<td>0.041673</td>
</tr>
<tr>
<td>5</td>
<td>0.053919</td>
<td>0.237992</td>
<td>-0.01408</td>
<td>0.145944</td>
<td>0.013573</td>
<td>0.057776</td>
<td>-0.03363</td>
<td>0.05213</td>
</tr>
<tr>
<td>6</td>
<td>0.125674</td>
<td>0.244643</td>
<td>-0.03063</td>
<td>0.150708</td>
<td>-0.0277</td>
<td>0.046332</td>
<td>0.003372</td>
<td>0.041785</td>
</tr>
<tr>
<td>7</td>
<td>0.484966</td>
<td>0.290717</td>
<td>-0.01992</td>
<td>0.146047</td>
<td>-0.00494</td>
<td>0.048239</td>
<td>0.036902</td>
<td>0.046913</td>
</tr>
<tr>
<td>8</td>
<td>0.122285</td>
<td>0.242877</td>
<td>-0.01628</td>
<td>0.148785</td>
<td>0.011166</td>
<td>0.049885</td>
<td>0.014469</td>
<td>0.041682</td>
</tr>
<tr>
<td>9</td>
<td>0.041334</td>
<td>0.238198</td>
<td>-0.00606</td>
<td>0.142863</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>0.034124</td>
<td>0.23868</td>
<td>-0.02648</td>
<td>0.148138</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>0.016764</td>
<td>0.239694</td>
<td>-0.01366</td>
<td>0.1466</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>0.597676</td>
<td>0.281355</td>
<td>0.094743</td>
<td>0.190599</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>0.08963</td>
<td>0.240686</td>
<td>-0.03358</td>
<td>0.154803</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>0.051799</td>
<td>0.238226</td>
<td>-0.00859</td>
<td>0.145142</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>0.238864</td>
<td>0.258425</td>
<td>-0.00618</td>
<td>0.157835</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled by the Researcher
Key note: NA = Non-discretionary accruals DA = Discretionary accruals

Xavier, Masashi and Michio (2010) affirmed that GAAP allows certain discretion to report accounting accruals. Hence, there is a possibility that accruals contain management’s expectations about future cash flows or management’s intention to manipulate. Goncharov and Zimmermann (2007) equally posits that different accounting standards exist allowing different flexibility and providing different (amount of) accounting choices. Consistent with Van Tendeloo and Vanstraelen (2005) who propounds that the adoption of IFRSs gives a positive signal of higher quality accounting and transparency this study discovered that the amount of discretionary accruals (DA) reduced by almost half for all the Nigeria sample banks in the IFRSs adoption period compared to the pre adoption period. There is equally a significant reduction of discretionary accruals (DA) for Malaysia sample banks after the adoption of MFRSs compared to pre adoption period.

Although the quality of Malaysia sample banks accruals and earnings has increased significantly after the adoption of the MFRSs, it is worth noting that the quality of Malaysia sample banks pre and post MFRSs adoption era is fundamentally better compared to the Nigeria sample banks pre and post IFRSs adoption periods accruals and earnings quality. This study discovered that the pre and post MFRSs adoption high accrual and earnings quality for Malaysia sample banks is directly linked to evidences that Malaysia immediate past accounting standards – Financial Reporting Standards (FRSs) issued by the MASB are mostly adopted from IFRSs. It could be said conclusively that the immediate past Malaysia FRSs is a partial compliance or convergence with IFRSs while the new Malaysia accounting framework –
MFRSs suggests full compliance with IFRSs. Conversely, this study discovered that nearly all Nigeria SASs issued by the Financial Reporting Council (FRC) are obsolete and do not reflect current developments in global accounting and reporting practices. Therefore, this study concludes that the IFRSs/MFRSs are stricter, exhibit limited flexibilities and amount of accounting choices; provide clearer rules and ultimately producing low level of discretionary accruals and higher earnings quality than the previous Malaysia FRSs and Nigeria SASs. This conclusion is consistent with Barth, Landsman and Lang (2008) who affirmed that higher earnings quality can be achieved by having stricter accounting standards that limit the number of accounting choices and prescribe clearer rules.

**Percentage Improvement in Accruals/Earnings Quality**

From the above analyses, it is clear that accruals or earnings quality for both Malaysia and Nigeria sample banks has greatly improved for the post IFRSs/MFRSs adoption period compared to the pre IFRSs/MFRSs adoption period. However, this improvement in earnings and accrual quality varies among Malaysia and Nigeria sample banks. The post IFRSs adoption earnings or accrual quality for Nigeria sample banks has improved almost by 41%. Whereas, the Malaysia sample banks post adoption earnings/accruals quality has improved by almost 13%. The table below presents summary of the percentage improvement in the post IFRSs/MFRSs adoption accruals/earnings quality of Nigeria/Malaysia sample banks.

**Table 3**

<table>
<thead>
<tr>
<th>Country Samples</th>
<th>Pre Adopt Earnings/Accruals Quality</th>
<th>Post Adopt Earnings/Accruals Quality</th>
<th>Percentage Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>0.252770</td>
<td>0.147502</td>
<td>41%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>0.050925</td>
<td>0.044483</td>
<td>12.65%</td>
</tr>
</tbody>
</table>

Source: Compiled by the Researcher

**Nigeria Pre and Post IFRSs Adoption Tests of Significance**

Two-tail tests of significance for the effect of change in gross earnings (ΔGE) minus change in net loans (ΔNL) and the effect of property, plant and equipment (PPE) are considered here. The hypotheses for these tests are:

- \[ H_0: \beta_2 = (no \ \Delta GE - \Delta NL \ \text{effect}) \]
- \[ H_1: \beta_2 = (there \ is \ \Delta GE - \Delta NL \ \text{effect}) \]
- \[ H_0: \beta_3 = (no \ \text{PPE \ effect}) \]
- \[ H_1: \beta_3 = (there \ is \ \text{PPE \ effect}) \]

This study used Eviews to calculate the t-values and p-values for these tests. They are automatically computed with the estimation of the equation and are reported on the least squares output as respectively estimated for pre and post IFRSs adoption period. Consider the test for the effect of changes in gross earnings (ΔGE) minus changes in net loans (ΔNL) and property, plant and equipment (PPE) for the pre IFRSs adoption. The t-value respectively is given by:

- \[ GE_{NL\_AST}: t = -0.032939/0.077810 = -0.423327 \]
- \[ PPE_{AST}: t = -1.053592/3.298752 = -0.319391 \]

The p-value is respectively given by:

- \[ p-value = P(t_{27} > -0.423327) + P(t_{27} < 0.423327) = 2 \times P(t_{27} < 0.423327) = 0.6754 \]
- \[ p-value = P(t_{27} > -0.319391) + P(t_{27} < 0.319391) = 2 \times P(t_{27} < 0.319391) = 0.7519 \]
Thus knowing the p-value is sufficient information for rejecting or not rejecting \( H_0 \). For both cases, i.e. changes in gross earnings (\( \Delta GE \)) minus changes in net loans (\( \Delta NL \)) and property, plant and equipment (PPE) this study do not reject \( H_0: \beta_2 = 0 \) and \( H_0: \beta_3 = 0 \) at a 5% significance level because the respective p-values of 0.6754 and 0.7519 are greater than 0.05. To make a decision about \( H_0 \) by comparing respectively the calculated values \( t = -0.423327 \) and \( t = -0.319391 \) to a 5% critical value, this study equally do not reject \( H_0: \beta_2 = 0 \) and \( H_0: \beta_3 = 0 \) because calculated \( t \) value \( t = -0.423327 \) and \( t = -0.319391 \) are less than 2.052 a 5% critical value. In summary the independent variables - changes in gross earnings (\( \Delta GE \)) minus changes in net loans (\( \Delta NL \)) and property, plant and equipment (PPE) indicate no effect on the dependent variable – total accruals (TA) during the pre IFRSs adoption in Nigeria. An additional confirmation of this is the high Sum squared residuals of 5.248654 of the least square regression model. Dechow and Dichev (2002) defining accruals as the magnitude of the estimation errors indicate that higher the accruals, the lesser the quality of earnings due to the possibility of higher estimation errors. Further details in this regard are provided in the Nigeria pre IFRSs adoption period least squares output blow.

### Nigeria Pre IFRSs Adoption period Least Squares Estimation Output

<table>
<thead>
<tr>
<th>Dependent Variable: TA</th>
<th>Method: Least Squares</th>
<th>Date: 03/21/14</th>
<th>Time: 17:33</th>
<th>Sample: 1 30</th>
<th>Included observations: 30</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.156614</td>
<td>0.173239</td>
<td>0.904036</td>
<td>0.3740</td>
</tr>
<tr>
<td>GE_NL_AST</td>
<td>-0.032939</td>
<td>0.077810</td>
<td>-0.423327</td>
<td>0.6754</td>
</tr>
<tr>
<td>PPE_AST</td>
<td>-1.053592</td>
<td>3.298752</td>
<td>-0.319391</td>
<td>0.7519</td>
</tr>
</tbody>
</table>

| R-squared   | 0.009776    | Mean dependent var | 0.116519 |
| Adjusted R-squared | -0.063574 | S.D. dependent var | 0.427522 |
| S.E. of regression | 0.449092 | Akaike info criterion | 1.294651 |
| Sum squared resid | 5.248654 | Schwarz criterion | 1.434771 |
| Log likelihood | -16.41977 | Hannan-Quinn criter. | 1.339477 |
| F-statistic | 0.133279    | Durbin-Watson stat | 1.446807 |
| Prob(F-statistic) | 0.875793 |

In the case of test for the effect of changes in gross earnings (\( \Delta GE \)) minus changes in net loans (\( \Delta NL \)) and property, plant and equipment (PPE) for the post IFRSs adoption. The t-value respectively is given by:

\[
\begin{align*}
GE_NL_AST: & \quad t = 0.473702/0.124347 = 3.809522 \\
PPE_AST: & \quad t = 5.808997/2.216278 = 2.621059
\end{align*}
\]

The p-value is respectively given by:

\[
\begin{align*}
\text{p-value} &= P(t_{27} > 3.809522) + P(t_{27} < -3.809522) = 2 \times P(t_{27} < -3.809522) = 0.0007 \\
\text{p-value} &= P(t_{27} > 2.621059) + P(t_{27} < -2.621059) = 2 \times P(t_{27} < -2.621059) = 0.0142
\end{align*}
\]
As earlier stated, knowing the p-value is sufficient information for rejecting or not rejecting \( H_0 \). For both cases, i.e. changes in gross earnings (\( \Delta GE \)) minus changes in net loans (\( \Delta NL \)) and property, plant and equipment (PPE) this study do reject \( H_0: \beta_2 = 0 \) and \( H_0: \beta_3 = 0 \) at a 5% significance level because the respective p-values of 0.0007 and 0.0142 are less than 0.05. To make a decision about \( H_0 \) by comparing respectively the calculated values \( t = 3.809522 \) and \( t = 2.621059 \) to a 5% critical value, this study equally do reject \( H_0: \beta_2 = 0 \) and \( H_0: \beta_3 = 0 \) because calculated \( t \) value \( t = 3.809522 \) and \( t = 2.621059 \) are greater than 2.052 a 5% critical value. Unlike the pre IFRSs adoption period, the independent variables - changes in gross earnings (\( \Delta GE \)) minus changes in net loans (\( \Delta NL \)) and property, plant and equipment (PPE) indicate effects on the dependent variable – total accruals (TA) during the post IFRSs adoption in Nigeria. An additional confirmation of this is the low Sum squared residuals of 1.150591 of the least square regression model. The lower magnitudes of the estimation errors indicate higher accruals and earnings quality for the post adoption era. Further details in this regard are also provided in the Nigeria post IFRSs adoption period least squares output blow.

Nigeria Post IFRSs Adoption period Least Squares Estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.268647</td>
<td>0.100638</td>
<td>-2.669450</td>
<td>0.0127</td>
</tr>
<tr>
<td>GE_NL_AST</td>
<td>0.473702</td>
<td>0.124347</td>
<td>3.809522</td>
<td>0.0007</td>
</tr>
<tr>
<td>PPE_AST</td>
<td>5.808997</td>
<td>2.216278</td>
<td>2.621059</td>
<td>0.0142</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.380698</td>
<td></td>
<td></td>
<td>-0.053149</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.334824</td>
<td></td>
<td></td>
<td>0.253111</td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.206433</td>
<td></td>
<td></td>
<td>-0.223044</td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>1.150591</td>
<td></td>
<td></td>
<td>-0.082925</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>6.345667</td>
<td></td>
<td></td>
<td>-0.178219</td>
</tr>
<tr>
<td>F-statistic</td>
<td>8.298743</td>
<td></td>
<td></td>
<td>1.550339</td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.001551</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Malaysia Pre and Post MFRSs Adoption Tests of Significance

Similarly, two-tail tests of significance for the effect of change in gross earnings (\( \Delta GE \)) minus change in net loans (\( \Delta NL \)) and the effect of property, plant and equipment (PPE) are equally performed for Malaysia samples. The stated hypothesis holds equally. In the case of test for the effect of changes in gross earnings (\( \Delta GE \)) minus changes in net loans (\( \Delta NL \)) and property, plant and equipment (PPE) for Malaysia samples pre MFRSs adoption. The t-value respectively is given by:

\[
GE_{NL\_AST}: t = \frac{0.044660}{0.404186} = 0.110494 \\
PPE_{AST}: t = \frac{-0.622725}{9.617285} = -0.064751
\]

The p-value is respectively given by:
p-value = P (t_{27} > 0.110494) + P(t_{27} < -0.110494) = 2 x P(t_{27} < -0.110494) = 0.9137  

p-value = P (t_{27} >-0.064751) + P(t_{27} < 0.064751) = 2 x P(t_{27} < 0.064751) = 0.9494  

This study also relies on the p-value sufficient information for rejecting or not rejecting $H_0$. For both cases, i.e. changes in gross earnings ($\Delta GE$) minus changes in net loans ($\Delta NL$) and property, plant and equipment (PPE) this study do not reject $H_0: \beta_2 = 0$ and $H_0: \beta_3 = 0$ at a 5% significance level because the respective p-values of 0.9137 and 0.9494 are greater than 0.05. To make a decision about $H_0$ by comparing respectively the calculated values $t = 0.110494$ and $t = -0.064751$ to a 5% critical value, this study equally do not reject $H_0: \beta_2 = 0$ and $H_0: \beta_3 = 0$ because calculated t value $t = 0.110494$ and $t = -0.064751$ are less than 2.052 a 5% critical value. Similar to the Nigeria pre IFRSs adoption period, the independent variables - changes in gross earnings ($\Delta GE$) minus changes in net loans ($\Delta NL$) and property, plant and equipment (PPE) indicate no effects on the dependent variable – total accruals (TA) during the pre MFRSs adoption in Malaysia. However the Sum squared residuals of 0.036702 is relatively low compared to Nigeria comparative figure of 5.248654. Further details in this regard are equally provided in the Malaysia pre MFRSs adoption period least squares output blow.  

Malaysia Pre MFRSs Adoption period Least Squares Estimation Output

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.009005</td>
<td>0.054072</td>
<td>0.166543</td>
<td>0.8703</td>
</tr>
<tr>
<td>GE_NL_AST</td>
<td>0.044660</td>
<td>0.404186</td>
<td>0.110494</td>
<td>0.9137</td>
</tr>
<tr>
<td>PPE_AST</td>
<td>-0.622725</td>
<td>9.617285</td>
<td>-0.064751</td>
<td>0.9494</td>
</tr>
</tbody>
</table>

R-squared: 0.001605  
Adjusted R-squared: -0.151995  
S.E. of regression: 0.053134  
Sum squared resid: 0.036702  
Log likelihood: 25.91701  
F-statistic: 0.010447  
Prob(F-statistic): 0.989615  

Finally, testing for the effect of changes in gross earnings ($\Delta GE$) minus changes in net loans ($\Delta NL$) and property, plant and equipment (PPE) for Malaysia samples post MFRSs adoption period, the t-value respectively is given by:

$GE_{NL\_AST}$:  
$t = 0.182734/0.148377 = 1.231552$

$PPE_{AST}$:  
$t = 5.826770/11.15439 = 0.522375$

The p-value is respectively given by:

p-value = P (t_{27} > 1.231552) + P(t_{27} < 1.231552) = 2 x P(t_{27} < 1.231552) = 0.2399  

p-value = P (t_{27} > 0.522375) + P(t_{27} < 0.522375) = 2 x P(t_{27} < 0.522375) = 0.6102
This study also relies on the p-value sufficient information for rejecting or not rejecting H\(_0\). For both cases, i.e. changes in gross earnings (ΔGE) minus changes in net loans (ΔNL) and property, plant and equipment (PPE) this study do not reject H\(_0\): \(\beta_2 = 0\) and H\(_0\): \(\beta_3 = 0\) at a 5% significance level because the respective p-values of 0.2399 and 0.6102 are greater than 0.05. To make a decision about H\(_0\) by comparing respectively the calculated values t = 1.231552 and t = 0.522375 to a 5% critical value, this study equally do not reject H\(_0\): \(\beta_2 = 0\) and H\(_0\): \(\beta_3 = 0\) because calculated t value t = 1.231552 and t = 0.522375 are less than 2.052 a 5% critical value. Similar to the Nigeria and Malaysian pre IFRSs/MFRSs adoption period, the independent variables - changes in gross earnings (ΔGE) minus changes in net loans (ΔNL) and property, plant and equipment (PPE) indicate no effects on the dependent variable – total accruals (TA) for the post MFRSs adoption in Malaysia.

However the co-efficient on both independent variables from the estimation of the least squares equation suggest a strong positive association between changes in gross earnings (ΔGE) minus changes in net loans (ΔNL) and property, plant and equipment (PPE) – independent variables and total accruals (TA) – dependent variable, for the post MFRSs adoption in Malaysia contrary to the negative association between total accruals and property, plant and equipment (PPE) for Malaysia pre adoption period. In addition, Malaysia post MFRSs adoption era exhibit the least Sum squared residuals of 0.028861 throughout the whole analysis which by extension holds that Malaysia post MFRSs adoption period reports the best accrual and earning quality. The Malaysia post MFRSs adoption period least squares output is hereby provided.

### Malaysia Post MFRSs Adoption period Least Squares Estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.006239</td>
<td>0.044849</td>
<td>0.139118</td>
<td>0.8915</td>
</tr>
<tr>
<td>GE_NL_AST</td>
<td>0.182734</td>
<td>0.148377</td>
<td>1.231552</td>
<td>0.2399</td>
</tr>
<tr>
<td>PPE_AST</td>
<td>5.826770</td>
<td>11.15439</td>
<td>0.522375</td>
<td>0.6102</td>
</tr>
</tbody>
</table>

### Overall Model Adequacy Tests

The test for significance of regression which is a test to determine if there is a linear relationship between total accruals (TA) and any of the coefficients of Δ GE – ΔNL and PPE otherwise
known as the regressor variables \((a_1, a_2)\). The regressor variable \(a_1\) represents the coefficient of \(\Delta GE – \Delta NL\) while the regressor variable \(a_2\) represents the coefficient of PPE. The regressor variables for Malaysia and Nigeria pre and post IFRSs/MFRSs adoption period are presented in table 4 below:

<table>
<thead>
<tr>
<th>Regressor Variables for Malaysia and Nigeria Pre and Post Adoption (\Delta GE – \Delta NL) and PPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a_1) (coefficient of (\Delta GE - \Delta NL))</td>
</tr>
<tr>
<td><strong>Nigeria Bank Sample</strong></td>
</tr>
<tr>
<td>Pre Adoption Period</td>
</tr>
<tr>
<td>Post Adoption Period</td>
</tr>
<tr>
<td><strong>Malaysia Bank Sample</strong></td>
</tr>
<tr>
<td>Pre Adoption Period</td>
</tr>
<tr>
<td>Post Adoption Period</td>
</tr>
</tbody>
</table>

Source: Compiled by the Researcher

This study rejects the null hypothesis implying that at least one of the regressor variables contributes significantly to the model. This test is often thought of as an overall or global test of model adequacy (Montgomery, Peck and Vining, 2001). Another way to assess the overall adequacy of a model is the \(R^2\). The Malaysia and Nigeria post IFRSs/MFRSs adoption multiple regression exhibits respectively higher \(R^2\) of 0.123537 and 0.380698 compared to the pre adoption period of 0.001605 and 0.009776 respectively. This suggests that the Malaysia and Nigeria post adoption linear regression models are more adequate and powerful than the pre adoption linear regression models.

It is pertinent to mention at this juncture that there exist a close relationship between Malaysia pre and post MFRSs adoption sum squared residuals which when used to judge accrual and earnings quality suggests close link between the earnings and accrual quality for both periods. The fundamental reason as discovered by this study is that the prior Malaysian accounting and reporting standards – Financial Reporting Standards (FRSs) to some extent, cherry picked some parts of IFRS. FRSs issued by the MASB were mostly adopted from IFRSs. The Malaysian Financial Reporting Standards (MFRSs) just sealed the MASB’s plan to fully converge with IFRSs. The specific closeness of the Malaysia FRSs and Nigeria SASs with the IFRSs touching banks related standards as discovered by this study is thus presented in the table 5 below:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IAS 32 Financial Instruments: Presentation</td>
<td>A</td>
<td>A</td>
<td>N/A</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>IAS 39 Financial Instruments: Recognition and Measurement</td>
<td>Partial (2010 only)</td>
<td>A</td>
<td>N/A</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>IFRS 7 Financial Instruments: Disclosures</td>
<td>Partial (2010 only)</td>
<td>A</td>
<td>N/A</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>IFRS 9 Financial Instruments</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>IFRS 13 Fair Value Measurement</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: Compiled by the Researcher

Key: N/A = Not Applicable, A= Applicable
To further investigate the relationship between the dependent and independent variables, particularly with Malaysia two tail tests of significance indicating that both independent variables have no effect on the dependent variable, this study further provide correlation matrix for the dependent and independent variables used.

**Pre and Post IFRSs/MFRSs Correlation Matrix for TA, ΔGE – ΔNL, and PPE**

The table below provides the pre and post IFRSs/MFRSs adoption correlation Matrix for the dependent variable (total accrual -TA) and the two predictor variables (change in gross earnings (ΔGE) minus changes in net loans (ΔNL)). Three important points can be gleaned from this matrix. First there exist negative collinearity between property, plant and equipment (PPE) and changes in gross earnings minus changes in net loans (ΔGE - ΔNL) for the pre and post IFRSs/MFRSs adoption periods. This is because property, plant and equipment (PPE) are related to income decreasing accrual-depreciation expense. By extension except for Nigeria post IFRSs adoption era, plant, property and equipment (PPE) exhibit a negative correlation with total accruals for the Nigeria pre IFRSs adoption period and Malaysia pre and post MFRSs adoption periods.

### Table 6

<table>
<thead>
<tr>
<th></th>
<th>Pre and Post IFRSs/MFRSs Correlation Matrix</th>
<th>Post Adoption Correlation Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nigeria Pre Adoption Correlation Matrix</strong></td>
<td>TA</td>
<td>GE_NL_AST</td>
</tr>
<tr>
<td>TA</td>
<td>1</td>
<td>-0.077684</td>
</tr>
<tr>
<td>GE_NL_AST</td>
<td>-0.077684</td>
<td>1</td>
</tr>
<tr>
<td>PPE_AST</td>
<td>-0.056601</td>
<td>-0.057462</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Malaysia Pre Adoption Correlation Matrix</th>
<th>Malaysia Post Adoption Correlation Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TA_AST</strong></td>
<td>1</td>
<td>0.035815</td>
</tr>
<tr>
<td>GE_NL_AST</td>
<td>0.035815</td>
<td>1</td>
</tr>
<tr>
<td>PPE_AST</td>
<td>-0.025828</td>
<td>-0.234041</td>
</tr>
</tbody>
</table>

Source: Compiled by the Researcher

Second, this study notice that the Nigeria post adoption period changes in gross earnings (ΔGE) minus changes in net loans (ΔNL) exhibits the strongest correlation (0.472357) with total accruals. It is followed closely by Malaysia post adoption period changes in gross earnings (ΔGE) minus changes in net loans (ΔNL) equally exhibiting a correlation of (0.324252) with total accruals (TA), suggesting that Nigeria and Malaysia post adoption period is characterised with accruals and earnings of higher quality. Third, contrary to the results of the two tail significance tests, the matrix reveals that for the Malaysia pre and post MFRSs adoption periods, changes in gross earnings minus net loans (ΔGE – ΔNL) has a positive correlation (0.035815 and 0.324252) with total accruals.

**CONCLUSIONS AND POSSIBLE RECOMMENDATIONS**

This study examines the effects of changes in Malaysia and Nigeria accounting standards on the earnings management of the banking sector of two emerging countries Malaysia and Nigeria. Accruals quality, specifically, magnitude of discretionary accruals is used to proxy
for earnings management. Giving evidence that the Jones (1991) model is the most powerful in investigating discretionary accruals, the model was modified in order to investigate banks earnings management in terms of decomposing total accruals into its nondiscretionary and discretionary components.

These tests were performed for both country pre and post IFRSs/MFRSs adoption periods. This study discovered that discretionary accruals reduced almost by 41% or half during the post IFRSs adoption for Nigeria samples and about 12.6% for the post MFRSs adoption for Malaysia banks. This means that accrual and earnings quality were significantly better for post IFRSs/MFRSs adoption period than the pre adoption period for both countries confirming that IFRSs/MFRSs are more stricter, limits possible flexibilities and accounting choices and provide clearer rules and hence signal of high quality accounting information and transparency. This study therefore recommends globally the adoption to or convergence with IFRSs (MFRSs).

REFERENCES


Dabor, EL. and Adeyemi, SB. (2009), ‘Corporate Governance and the Credibility of


of Local Government Entities,’ Australasian Accounting Business and Finance Journal, 6(3) (7), 110-120.


Nobes, CW. (2006), ‘The Survival of International Differences under IFRS: Towards A


William HB. (2004), ‘Accounting Choice in Troubled Companies: An Examination of Earnings Management by NASDAQ Firms in Jeopardy of Delisting,’ (Unpublished Doctoral Dissertation), The Virginia Polytechnic Institute and State University, United States


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