INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) ADOPTION AND EARNINGS MANAGEMENT IN MANUFACTURING COMPANIES IN NIGERIA

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Abstract
This paper examines the impact of IFRS adoption on earnings management of manufacturing firms in Nigeria. In this study IFRS does not have any proxies because the study is a comparative analysis that assesses earnings management pre- and post-IFRS adoption in the manufacturing sector of Nigeria, however, a dummy variable was developed to distinguish pre and post IFRS periods in the data analysis as shown below: Post-adoption = 1,Pre-adoption = 0. The study covers four years (2008-2011) Pre and four years (2016-2020) post-IFRS. This study modified the Jones (1991) model to measure earnings management in the manufacturing sector. The Logistic Regression was used in the analysis with aid of Statistical Package for Social Sciences (SPSS) version 20. Our findings revealed that earnings management measured by Discretionary Accrual was reduced after the adoption of IFRS and was statistically significant at 5% level. Based on the findings, the paper recommended that the mandatory adoption of IFRS should be embraced by all sectors of the Nigerian economy, all relevant factors such as CBN, accounting professional bodies, accounting academia, not only IFRS, should be considered in monitoring and creating an international competitive environment to ensure improvement in transparency and comparability of financial statements.
Keywords: *earnings management, discretionary accrual, IFRS, manufacturing*

Introduction

One issue that has come to the vanguard of recent debate regarding unethical behavior in corporate accounting is that of earnings management or more expressively “opportunistic” earnings management. There is substantial evidence that executives engage in earnings management (Baber, Fairfield & Haggard, 1991). Aside the popular cases of Enron and WorldCom in the United States, in Nigeria the collapse of Intercontinental Bank, Oceanic Bank, Fin Bank, Equatorial Trust Bank, Afribank and Cadbury have been attributed to earning management. However, earnings management is not always alleged as wrong. Proponents of this believe that there is a good side of earnings management and that it “can be a device to convey insider information to the market, enabling share price to better reflect the firm’s future prospects” (Scott, 2003). The accounting profession has also accepted that not all earnings management techniques are deceptive.

However, the recent established idea among accountants, regulators and standard setters is that, more often than not, earnings management is detrimental. It deceives investors and reduces the dependability of financial reporting (Titas & Dipanjan2012). Thus this present study defined earnings management according to Healy & Wahlen (1999),as *'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 practices.* 'According to Roman (2019), "Earnings management occurs when firm management has the opportunity to make accounting decisions that change reported income and exploit those opportunities"

A number of studies found different managerial incentives for earnings management. DeFond & Jiambalvo (1994) find that sample firms accelerate earnings prior to lending covenants, Holthausen, Larcker & Sloan (1995) observed that managers manipulate earnings downwards when their bonus are at their maximum. Watts &Zimmerman (1986) suggests that certain factors such as debt covenant constraints, compensation plan provisions, and political costs, the need to issue equity capital, insider trading, etc. provide managers with incentives to manage earnings. Some of them blame GAAP (i.e., Generally Accepted Accounting Principles), citing that they are inherently faulty and enable earnings to be managed dishonorably. 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. Thus standard setters and the accounting profession are critically concerned about the practice of earnings management and the unfavorable consequence it has on financial reporting (Titas & Dipanjan 2012; Amrik (2004)

Changes in accounting standards are expected to influence the reporting habits and outcomes. Hence, the global adoption to or convergence with IFRSs is considered likely important determinant of the quality of accounting information (Houqe, Zijl, Dunstan & Karim, 2012).

Limited studies on impact of IFRS on earnings management in Nigeria centred in the banking sectors (Matthias & Obiamaka 2016); Ugbede, Mohd & Ahmad 2014). However, to the best of my knowledge no study has examined the impact of IFRS adoption on earnings management in the manufacturing sector of Nigeria by comparing NG-GAAP (2008-2011) and IFRS (2012-2015). To address these, the researchers hypothesized thus:

Ho: Post-IFRS adoption does not reduce earning management using discretionary accrual than pre-IFRS adoption

The paper is organised as follows' the next section reviews relevant literature with regards to context justification and provide a theoretical background for the study, respectively. Next describes the sample data and empirical methodology. The last section summaries the main results, offers conclusion and recommendations.

Review of related literature

Efficient contracting theory

Efficient contracting theory underpinned this study. Efficient contracting theory takes the view that firms organize themselves in the most efficient manner, so as to maximize their prospects for survival. Some firms are more decentralized than others, some firms conduct activities inside while other firms contract out the same activities, some firms finance more with debt than others, etc. The theory assumes that managers, like investors, are rational. Consequently, given that important contracts depend on accounting variables, managers may be tempted to be bias or otherwise manage reported earnings and working capital valuations if they perceive this to be for their own benefit. This creates a demand for accounting policies to control such tendencies. Controlling these tendencies is the efficient contracting and stewardship role of financial reporting. Efficient contracting theory helps accountants to understand why reporting on stewardship is important, and to appreciate the boundaries of legitimate management concern about accounting policy choice. The efficient contracting theory suggests a positive association between accounting discretion and long term firm performance and quality of financial information (Hassan, 2015). Therefore, in this study the efficiency contracting theory is selected to link manufacturing firms attribute with earnings management before and after the adoption of International Financial Reporting Standards in Nigeria.

Empirical Reviews

Several studies related to the adoption of IFRS have been conducted and published in recent times. Hassan, (2015) examined Adoption of International Financial Reporting Standards and Earnings Quality in Listed Deposit Money Banks in Nigeria. The paper investigated firm attributes from the perspective of structure, monitoring, performance elements and the quality of earnings of listed deposit money banks in Nigeria. The study adopted correlational research design with balanced panel data of 14 banks as sample of the study using multiple regression as a tool of analysis. The result reveals that firms attributes (leverage, profitability, liquidity, bank size and bank growth) has as significant influence on earnings quality of listed deposit money banks in Nigeria after the adoption of IFRS, while the pre period shows that the selected firm attributes has no significant impact on earnings quality. It is therefore concluded that the adoption of IFRS is right and timely.

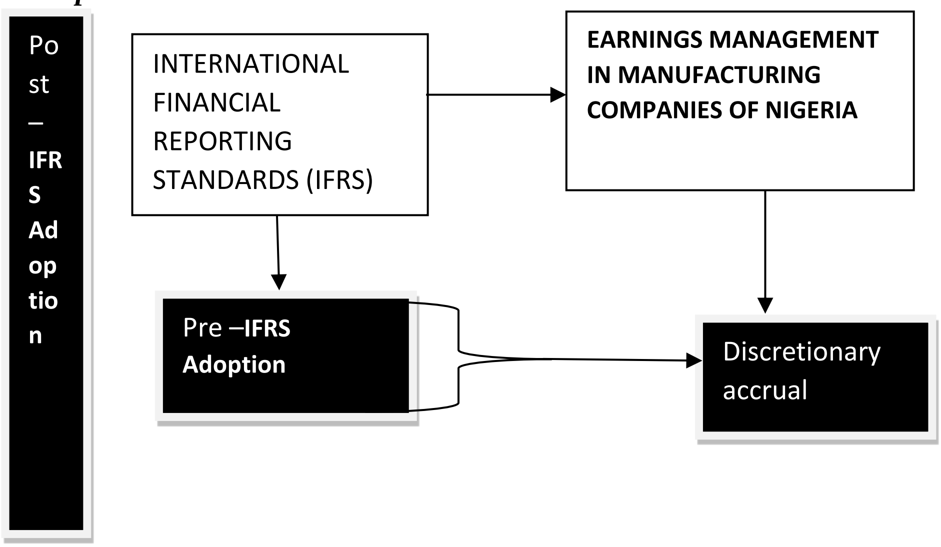
In a related development, Matthias & Obiamaka (2016) investigated The Impact of International Financial Reporting Standards Adoption and Banking Reforms on Earnings Management: Evidence from Nigerian Banks. The study examines stock market reaction and the impact of IFRS adoption on the Nigerian stock market. The paper also evaluates the effect of the Central Bank of Nigeria (CBN) reforms on earnings management of Nigerian banks. The result indicates no evidence of any significant effect on the market but a negative stock reaction in the medium term. the finding highlights mixed impact of IFRS adoption on earnings management; but a significant decrease in earnings management in the post CBN reforms. The study shows that adoption of IFRS was wrongly timed in Nigeria as the fragile investors' sentiment which was just recovering from the shock of the global financial crisis could have been weakened by the negative market returns. These results have signal effect on investors.

Ugbede, Mohd & Ahmad (2014) the Effects of Changes In Accounting Standards On Earnings Management Of Malaysia And Nigeria Banks. 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.

On the international setting, Lei, Asheq & Stephen (2008) investigated on the Effect of IFRS and its Enforcement on Earnings Management: An International Comparison. They examined the effect of IFRS and its enforcement on earnings management in financial reporting using over 100,000 firm-year observations from 2000 to 2006 across 32 countries. They conducted this examination by using a modified measure of enforcement developed by Hope (2003). They found that earnings management in IFRS adoption countries has been decreasing in recent years. The results also show that countries with stronger enforcement generally have less earnings management.

Kaaya (2015) the Impact of International Financial Reporting Standards (IFRS) on Earnings Management: A Review of Empirical Evidence. This study applies a desktop review to investigate the worldwide existing empirical research evidence on the impact of IFRS on earnings management post- IFRS adoption and in relation to other reporting standards and reports whether the results are indistinguishable between developed and developing economies. The findings reveal that the existing empirical crams and conclusions there on are mixed, inconsistent and difficult to generalize. This indicates the pressing need for country specific empirically tested studies of this nature. The study further, stumbles on the fact that IFRS can indistinctly benefit both developing and developed markets when coupled with appropriate effective enforcement machinery. Substantially, the results entail that IFRS is a critical determinant for quality reporting but not a 'prima facie' guarantor for quality reporting. From the above empirical review, it is clear that expectation following the adoption of IFRS both in Nigeria and globally is to improve quality of financial reporting better than local standards. Based on this expectation and on the Operational conceptual framework below, we hypothesize that;

Post-IFRS adoption reduce earning management using discretionary accrual than pre-IFRS adoption



Methodology

A time series design will be used for this study. It is a research design in which measurement of the same variables are taken at different points in time, often with a view to studying social trends (Pratt, 2014). A sample size of twenty-seven (27) manufacturing companies listed on the Nigerian Stock exchange. The study covers a period of eight (8) years divided into two periods- Pre and Post. 2008-2011 for pre-

IFRS adoption and 2012-2015 for post-IFRS adoption. The source of data for the study is secondary only extracted from the audited financial statements of the sampled firms.

The Logistic Regression is useful in analyzing categorical data, where the criterion variable is dichotomous and takes only two valves – 0 and 1. The Statistical Package for Social Sciences (SPSS) version 20 will be used in the analysis. A dummy variable has been developed to distinguish pre and post IFRS periods in the data analysis as shown below: Post-adoption = 1,Pre-adoption = 0

Measurement of earnings management:

Earning management = this study uses the discretionary accruals in measuring earning management. This study uses the cross-sectional modified Jones' model to obtain a proxy for discretionary accruals. Dechow *et al*. (1995) and Guay *et al*. (1996) argued that the modified Jones model is the most powerful model for estimating discretionary accruals among the existing models. Based on the above argument, discretionary accruals can be measured as follows:

TACCit = NIit - OCFit…………………………………………………………..(1)

Where, total accrual is the difference between earnings and cash flows from operating activities as shown in equation 1 above.

TACCit/TAit-1 = β1 (1/TAit-1) +β2 [(DREVit)/TAit-1] + β3 (PPEit/TAit-1) + eit…..(2).

Where, equation 2 above is estimated for each firm and fiscal year combination; thus the industry specific parameters of the Jones model are estimated above.

NDACit =***â***1 (1/TAit-1) + ***â*** 2[(DREVit- DRECit)/TAit-1] +***â*** 3(PPEit/TAit-1). (3)

Where, Non-discretionary accruals are measured for each year and fiscal year combination using the equation3 above

DACCit= TACCit – NDACit ……………………………………………… (4)

Equation4 above presents the discretionary accruals (DACC) which is The Difference between total accruals and the non-discretionary components of accruals.

$$DACC_{it} = \frac{TA_{it}}{A_{it-i}} - \left(\beta 0 + \beta_{1t}\frac{1}{A_{it-1}} + \frac{\beta_{2t}\,\Delta GE_{it} - \Delta NL_{it}}{A_{it-1}} + \beta 3t\,\frac{PPE_{it}}{A_{it-1}}\right) + \varepsilon \quad . (5)$$

Equation 5 presents the mathematical formulae of discretionary accrual used in the computation of earnings management in this study.

Where;

$DACC_{it}$=Discretionary accrual of company i at time t

TA_{it}=Total accruals of company i determined by subtracting Profit/loss before taxation, exceptional and extraordinary items and cash flows from operation for year t.

A_{it} = Asset at the commencement of the year
ΔGE_{it} = Variation in Gross earnings as of time t –1 to t
ΔNL_{it} = Change in the analysis of total loans and Advances and non-performing loan as of time t–1 to t to reflect variation in Net Loans (ΔNL)
Σ = error term/random term
Gross Earnings (GE) = Interest Income (IINC) + Fee Commissions (FCOM) + Foreign Exchange Income (FOREXINC) + Trusteeship Income (TINC) + Investments Income (INVINC) + Share Income (SHINC) + Other Income (OINC) ………………… (ii)
Net Loan (NL) = Total Loans (TL) – Non-Performing Loans (NPL) …………………… (iii)

TACCit= total accruals for company i in year t
NIit = net income before extraordinary items for company i in year t
OCFit = operating cash flows for company i in year t.
TAit-1 = Previous year's total assets
REVit = change in operating revenues for company i in year t
PPEit = gross property, plant and equipment for company i in year t.
NDACit= non-discretionary accruals for company i in year t
RECit = change in net receivables for company i in year t
We use the absolute value because either positive or negative discretionary accruals areconsidered as earnings management behavior (Wartfield et al., 1995; Gabrielsen et al., 2002;Wang, 2006; Chen et al., 2007; Barth et al. 2008).

Model specification
The econometric model that will be tested to determined effect of IFRS adoption in the performance of corporate entities in Nigeria is given below;
$Y = F(X_1, X_2)$
Where, Y represents the dependent variables (earnings management) and X_1, X_2 represent the independent variables (Pre-IFRS and Post-IFRS)

$$RR = \alpha_0 + \alpha_1 DACC_{it} + \varepsilon_{it} \ldots\ldots 1$$

α_o = Constant or intercept
α_1 = Coefficient or slope
ε_{it} = error term.
RR = A dummy variable representing the regulatory regime.
$DACC_{it}$=Discretionary accrual of company i at time t

Result and discussion
Descriptive results
Table 1 presents the descriptive statistics for both Pre-IFRS Discretionary accrual and post-IFRS Discretionary accrual for the twenty-seven (27) manufacturing firms.
(Insert table 1 here)

Table 1
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-IFRS DACC	108	-9.92	4.69	-2.8407	2.98192
Post-IFRS DACC	108	-9.73	-1.05	-3.7162	2.93760
Valid N (listwise)	108				

The criteria variable - the discretionary accruals (DACC) ranges from -9.92 to 4.69 for Pre-IFRS adoption with an average of -2.8407 while Post-IFRS DACC ranges from -9.73 to -1.05 with an average of -3.7162which provided evidence of earnings management in manufacturing companies in Nigeria

Model summary
The model summary is aim at determining if there is a statistical significant difference between pre- and post-IFRS adoption.
(Insert table 2 and 3 here)

Table 2
Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	294.725[a]	.022	.029

a. Estimation terminated at iteration number 3 because parameter estimates changed by less than .001.

Table 3
Hosmer and Lemeshow Test

Step	Chi-square	Df	Sig.
1	19.393	8	.013

Table 2 Contains the Cox & Snell R Square and Nagelkerke R Square values, which are both methods of calculating the explained variation. The table shows that the Cox & Snell R Square (R^2) = .022 while that of Nagelkerke R Square (R^2) .029.Similarly, the table 3 shows a chi^2 = 19.393 and sig value = .013. Since the sig value is less than 0.05, the study concludes that there is a statistical significant difference between pre- and post-IFRS adoption. In addition, Nagelkerke R Square (R^2) of.029indicates that the model is good but not great

Result Of Binary Regression For The Model Specified

$RR = \alpha_0 + \alpha_1 DACC_{it} + \varepsilon_{it}$………………………… *1* **(insert table 4 here)**

Table 4
Variables in the Equation

B	S.E.	Wald	Df
-.101	.047	4.568	1
-.329	.205	2.567	1

a. Variable(s) entered on step 1: DACC.

Table 4 provides the regression coefficient (B), the Wald statistics (to test the statistical significance) and the all important Odd ratio (Exp (B)) for each variable category. The explanatory variable was entered/removed from the binary logistic regression using a step-wise procedure with a p-value of 0.05 to enter and a p-value of 0.10 to remove. The Wald statistic was used to test the alternate hypothesis that each coefficient is zero. Table 4 compares the pre-IFRS based financial numbers reported during 2008-2011 and the post-IFRS financial numbers reported during 2012-2015. The result reveals that DACC (B = -.101, W = 4.568, Sig. = .033) was reduced after the adoption of IFRS and was statistically significance 5% level.

Conclusion and recommendations

The study examined the impact of IFRS adoption on earnings management in the manufacturing companies of Nigeria. The study provided both empirical as well as statistical evidence on the utility of twenty-seven (27) quoted firms in predicting earnings management of listed manufacturing companies in Nigeria after the adoption of IFRS better than before the adoption.

Our findings revealed that earnings management measured by Discretionary Accrual was reduced after the adoption of IFRS and was statistically significant 5% level. The findings of this study coincide with the findings of Hassan (2015) whose result reveals that firms attributes (leverage, profitability, liquidity, bank size and bank growth) has significant influence on earnings quality of listed deposit money banks in Nigeria after the adoption of IFRS, while the pre period shows that the selected firm attributes has no significant impact on earnings quality. It is therefore concluded that the adoption of IFRS is right and timely. Similarly, Matthias & Obiamaka (2016) discovered that earnings management decreased after IFRS adoption, implying that it is likely influenced by IFRS adoption in Nigerian banks.

In a comparative study between Nigeria and Malyasia, Ugbede, Mohd & Ahmad (2014) discovered that 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. In the entire European Union, the earnings management decreased and accounting quality was enhanced in only 16.6% (100 companies) of the examined companies. Earnings management in IFRS adoption countries has been decreasing in recent years. The results also show that countries with stronger enforcement generally have less earnings management (Tereza**2014;** Lei, Asheq & Stephen 2008). The study concludes that the timely adoption of IFRS in Nigeria presents perhaps the most important accounting regulatory change in recent time.

On the whole, this paper contributes to the current accounting debate with more empirical evidence from the manufacturing sectors of Nigeria, in which no study has been carried out in this sector of Nigeria. Based on the findings, the paper recommended that the mandatory adoption of IFRS should be embrace by all sectors of the Nigerian economy. Secondly, all relevant factors such as CBN, accounting professional bodies, accounting academia, not only IFRS, should be considered in monitoring and creating an international competitive environment to ensure improvement in transparency and comparability of financial statements.

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Table 4
Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1[a]	DACC	-.101	.047	4.568	1	.033	.904
	Constant	-.329	.205	2.567	1	.109	.720

a. Variable(s) entered on step 1: DACC.