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Earnings Persistence in the Post-SAS Period: The Case of Listed Firms in Nigeria

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Abstract

The adoption of International Financial Reporting Standards (IFRS) in Nigeria represents the major changes in the financial reporting system in recent time. On the basis of this change, this study investigates whether the transition Statement of Accounting Standards (SAS) to IFRS has resulted in higher earnings persistence among the listed firms in Nigeria. The study utilizes secondary data obtained from annual reports of sample firms listed on the Nigerian Stock Exchange (NSE) from 2007 to 2016 and employs panel regression for all the analysis. The findings from the regression analysis reveal that IFRS adoption did not engender higher persistence of earnings in the post-adoption period.

Keywords: Earnings persistence, IFRS, Statement of Accounting Standards, Nigeria Stock Exchange
JEL Codes: M41

1. Introduction

Prior to the wake of 2012, Statement of Accounting Standards (hereafter SAS) has been the basis of general purpose financial reporting in Nigeria. However, because of the need to bridge the gaps that existed in SAS and the desire to attract more investors (especially foreign investors), the Nigerian government made a pronouncement for the adoption International Financial Reporting Standards (hereafter IFRS) which has commenced since January 2012. Accordingly, listed firms in Nigeria began to disclose IFRS-based financial statement from the 2012 accounting year. Consequently, the adoption of IFRS in Nigeria represents the major changes in the financial reporting system in recent time with the adoption period spanning over five years already.

The International Accounting Standards Board (IASB) is the body saddled with the sole obligation of issuing IFRS (formerly known as International Accounting Standards) that are not only of high quality but acceptable to all nations and capable of promoting transparency in corporate reporting (Chebaane & Othma, 2014). To this end, the board which was created in 2001 has continued to pursue and promote this course of global acceptance and adoption to the extent that IFRS has become global financial reporting standards. The standards which are a principles-based set of standards with established rules as well as some dictates to specific treatments, represents the basis of corporate reporting for most nations in the globe.

Currently, IFRS is enjoying global acceptance since the year 2005 when it was first made mandatory in Europe as the basis of general purpose financial reporting. The twin factors influencing this global acceptance are the need for transparent reporting (De George, Li, & Shivakumar, 2016; Collett et al., 2001; Ahmed et al., 2013) and cross-border comparability (Daske & Gebhardt, 2006). Accordingly, prior studies document that IFRS-based financial statements are associated with higher accounting quality compared to financial statements based on local Generally Accepted Accounting Principles (GAAP). It is on this not that this study seeks to investigate whether earnings of listed firms in Nigeria exhibit higher persistence earnings subsequent to IFRS implementation. Examining the nexus between IFRS adoption and earnings persistence is important because the persistence of earnings is a consequence of company's economic performance and a reflection of the quality of general purpose financial reporting basis (Dichev & Tang, 2009). It is on this note that extant studies utilize earnings persistence as a measure of earnings quality as anecdotal of evidence suggests that higher earnings quality is that which is not only sustainable but highly persistent. Consequently, investors rely more on earnings persistence for economic decisions (Chambers & Payne, 2011).

Studies on the consequences of IFRS implementation are paramount in Western countries where it was first launched with little studies in the developing countries. Accordingly, it is necessary to extend this line of research to developing nations such as Nigeria. This is important as Financial Reporting Council of Nigeria (FRCN) recently required its listed firms to disclose IFRS-based financial statement from the dawn of 2012. The outcome from this study will assist the council in gauging the consequence of her decision and to take proactive measures on future IFRS related issues. Therefore, this study enriches the existing literature on IFRS adoption worldwide as it further serves as a response to IASB's call on the need to understand how IFRS affects each nation of the world.

The remaining portion of this study is structured as follows. Review of related literature and theoretical framework are presented first. The section that follows presents the study's methodology and models specification. Results from data analysis and conclusions consecutively follow and the final section presents the recommendations of the study.

2. Literature Review and Theoretical Framework

Earnings Persistence

Earnings persistence is the extent to which current earnings persist or repeat over periods of time (Hoang, Abeysekera, & Ma, 2015; Burnett et al., 2015; Parte-esteban & Garcia, 2014). According to Chambers and Payne (2011) both earnings persistence and its constituents measured the sustainability of future earnings by present earnings or its components. Firms with more persistent earnings have a more sustainable earnings/cash flow stream which is useful for valuation model (Dechow, Ge & Schrand, 2010). Consequently, extant studies support the notion that sustained earnings progress is an indication of higher earnings quality (Gu & Jain, 2005). This is why sustainability of earnings is seen as a necessary earnings quality by investors (Ewert & Wagenhofer, 2015).

Earnings persistence enhances the decision usefulness of earnings figures for both known and unknown investors. In this vein, most valuation models for predicting firm value are built with parameters of earnings persistence. Therefore the persistence of earnings does not only allow investors to forecast future earnings correctly but also firm value. Accordingly, the continuation of positive earnings trend is the anticipation of investors and such expectation would be attenuated whenever such trend is wrecked (Yao, 2015). Due to this greater importance of earnings persistence to investors, it becomes expedient to assess the consequence of IFRS implementation on the persistence of earnings especially that existing and potential investors are among the primary users of corporate financial statement (IASB, 2018). The next section converse on how the hypothesis of the study is developed.

Empirical Review

The adoption of IFRS in Nigeria represents major changes in the financial reporting system in the country with the aim of enhancing the quality of general purpose financial statements of its listed firms. Extant studies utilize different metrics of earnings quality to ascertain the effect of IFRS implementation on the quality of reported earnings. Results from these studies are mixed.

Utilizing earnings management models, Ismail et al. (2013) evenly match earnings quality of Malaysian companies before and after IFRS adoption by utilizing 4,010 firm-year observations. Their pre and post investigation results show that post-adoption earnings improves better. After utilizing earnings management model also, Krismiaji et al. (2016) provide proof of positive relationship between IFRS adoption and firms listed on Indonesian Stock Exchange. Kabir, Laswad and Islam (2010) utilize a period of eight years, 2002-2009 to assess the consequence of IFRS implementation on the accounts and the quality of earnings of 118 firms listed on New Zealand Stock Exchange. Contrary to the findings Krismiaji et al. (2016); Ismail et al. (2013), their result reveal that earnings management were significantly greater during IFRS regime compare to domestic standards regime indicating lesser earnings quality subsequent to IFRS adoption. Halabi and Zakaria (2015) examine how country-specific factors affect earnings quality in nations that mandatory implement IFRS from 2007 through 2011. Utilizing earnings management models, their findings suggest that IFRS application alone is inadequate in enhancing the quality of reported earnings when there is lack of strong regulatory institutions.

Also, studies that have utilize persistence of earnings as proxy for earnings quality provide evidence of conflicting results on the consequential impact of IFRS implementation on earnings persistence as some studies (like Liu & Sun, 2015) document evidence of higher persistence of earnings, other studies (like Doukakis, 2010) provide evidence of a decline in earning persistence after the adoption of IFRS. Employing period from 2002 to 2006, Doukakis (2010) utilizes a sample of companies quoted on the Athens Stock Exchange to examine the association between IFRS adoption and earnings persistence and its components. The findings from his study indicate that IFRS does not lead to higher persistence of earnings. In a more recent study, Liu and Sun, (2015) utilize earnings per share (EPS) to examine and compare the persistence earnings before and after the adoption of IFRS among 257 Canadian firms from 2008 to 2009. Their regression results reveal that post-IFRS earnings are more persistence compared to pre-IFRS earnings during the period of study.

Theoretical Framework and Hypothesis Development

Earnings are the excess of revenue over expenses which also mean income or profit. Among the important attributes of earnings, persistence of earnings stands out. Earnings that are more persistent indicate higher earnings quality (Ewert & Wagenhofer, 2015; Gu & Jain, 2005) which is desirable to both managers and investors. To investors, earnings persistence allow investors to value firm and forecast future earnings correctly as most valuation models for predicting future earnings and firm value are built with parameters of earnings persistence (Dechow, Ge & Schrand, 2010). To managers on the other hand, earnings are use as the gauge through which their efficiency and effectiveness in utilizing organisation resources are assessed. Therefore, earnings persistence offers the yardstick through which the success of managers is measured. Realising this fact, managers tend to manage earnings in several ways for the purpose of being adjudged as successful managers. When earnings are managed, the quality of such earnings is eroded thereby thwarting its decision usefulness.

Managers may continue to pursue the above purpose by engaging in earnings management (Laux & Leuz, 2009) in order to be adjudged successful. This engagement is highly detrimental to the interests of shareholders. In line with agency theory as propounded by Jensen and Meckling (1976) managers are view as the "agents" of shareholders, the "principals", resulting to agency relationship. In this relationship, management of the companies and decision-making are delegated to the agents by the principal. However, more often than not, the former do not decide in favour of the later which in most cases result to conflict of interest (Dion, 2016).

High accounting standards (which IFRS is) are needed to daunt managers from behaving opportunistically so that their interests will align with that of shareholders. IFRS is a high quality accounting standards capable of ensuring transparent reporting. Decision usefulness is the foundation upon which IFRS is built. When earnings are transparently disclosed, information users would be better placed in making rational decision about their stake in a given reporting entity. This suggests that when earnings are managed, they will affect the decisions of information users thus, contravening their essential objective. Therefore IFRS will ensure high persistent earnings which are useful to users especially, in resource allocation since persistence of earnings are regarded as an acute gauge as well as the core basis of capital markets' information (Wang & Yang 2013).

Therefore, the adoption of IFRS in Nigeria is expected to result to high transparent reporting capable of leading to more earning persistent subsequent to its adoption. Though the discussions presented in the previous section provide evidence of conflicting result on the association between IFRS adoption and earnings persistence, we do not expect that the adoption to lead higher earnings persistent. This is because adopting firms were not given enough time to prepare for and be familiar with the complex standard, full of intricacies and difficulties (Jermakowicz & Gornik-Tomaszewski, 2006). Enough preparation time is needed as there was no voluntary application of IFRS in Nigerian before it was made mandatory. On the basis of this, we hypothesis that:

H_1: Adoption of IFRS in Nigeria does not significantly enhance earnings persistence of listed firms in Nigeria in the post-adoption period

3. Methodology

Population of the Study and Data Source

The population of the study cut across all firms listed on the Nigerian Stock Exchange (NSE) within the period under review. Due to the fact that the study considers two periods (SAS and IFRS), we apply four cleaning processes to sieve out firms that do not meet the econometrics models employed for sample size determination. These cleaning procedures include:

a) Firms listed under financial service sector were dropped from the sample,
b) Firms not listed throughout SAS and IFRS periods were dropped from the sample,
c) Firms that are suspended or delisted within the study period were dropped from the sample and
d) Firms associated with missing values for the variable used were dropped from the sample.

After applying the processes, the final sample firms utilized in this current study consist of 78 listed firms from which all the data employed in the study relates. Consequently, the secondary data collected were obtained from the financial statements of the 78 companies and from the official books of NSE for all the two periods considered. These periods are SAS period (2007 to 2011) and IFRS period (2012 to 2016). The period when SAS was in used is tagged "SAS period". In contrast, the period from when IFRS becomes mandatory is tagged "IFRS period".

Model Specifications

We employ three econometric models to investigate whether earnings of listed firms in Nigeria are more persistent subsequent to IFRS implementation. Model 1 offers the grounded model using Kormendi and Lipe (1987) method. Utilizing their method, the coefficient of earnings persistence is estimated for current year's earning from previous year's earnings from firm-level regression. In this model (3.1), the persistence of earnings is measured by the coefficient on lag earnings, $Earnings_{it-1}$. The nearer this coefficient is to 1, the greater the magnitude of earnings persistence. However, the farther this coefficient is to 1, the lower the magnitude of earnings persistence.

$$Earnings_{it} = \beta_0 \frac{1}{TA_{it}} + \beta_1 Earnings_{it-1} + \mu_{it} \ldots\ldots\ldots\ldots\ldots\ldots .3.1$$

$$Earnings_{it} = \beta_0 \frac{1}{TA_{it}} + \beta_1 Earnings_{it-1} + \beta_2 IFRS_{dummy} + \beta_3 \text{IFRS} * Earnings_{it-1} + \mu_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.2$$

$$Earnings_{it} = \beta_0 \frac{1}{TA_{it}} + \beta_1 Acc_{it-1} + \beta_2 CF_{it-1} + \beta_3 IFRS_{dummy} + \beta_4 Acc_{it-1} * IFRS + \beta_5 CF_{it-1} * IFRS + \mu_{it} \ldots\ldots\ldots\ldots .3.3$$

Where:

$Earnings_{it}$ and $Earnings_{it-1}$ are current and lag-year earnings respectively scaled by the total amount of assets and measured by earnings before interest and tax. ACC_{it-1} and CF_{it-1} are lag year accruals and cash flow components of earnings respectively scaled by the total amount of assets. Cash flows are operating cash flows obtained from the statement of cash flow while accruals are measured as the difference between earnings before interest and tax and operating cash flow. $IFRS_{it}$ is a dichotomous variable measured as 1 for observations within IFRS period and 0 for observations in SAS period.

These methods are consistent with the approach of Hoang et al., (2015); Kamarudin, Ismail, & Samsuddin, (2012). We modified model 3.1 and included IFRS dummy, *IFRS*, in model 3.2 and interact it with $Earnings_{it-1}$ so as to capture the effect of IFRS adoption on earnings persistence. Consequently, the coefficient of interest in model 3.2 is β_3 which captures the interaction between earnings persistence and IFRS adoption. Expanding beyond the composite amount of earnings, we decomposed earnings into accruals and cash flows constituents as specified in model 3.3 and interacts each the two constituents (ACC_{it-1} and CF_{it-1}) with IFRS dummy so as to capture the effect of IFRS adoption on each earnings constituents. Therefore, β_4 and β_5 are the coefficients of interest in model 3.3. If earnings persist higher in the IFRS(SAS) period then, all coefficients of interest will be positive(negative). Higher earnings persistence is an indication of greater earnings quality. In contrast, transitory earnings on the other hand, is an indication of lower earnings quality.

4. Result and Discussion of Findings

Descriptive Statistics

Table 4.1 presents the descriptive statistics in relation to the univariate time series metric variables of earnings and its components. As reveals by the Table, some sample firms during the period of the study made loss as shown by the minimum values of earnings and its components. However, the majority of the sample firms made profits during the period of the study as revealed by the mean values. This revelation is good for the measurement of earnings persistence.

Table 4.1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
$Earnings_{it}$	780	0.0836631	0.18243	-1.872074	0.7926759
$Earnings_{it-1}$	780	0.0720861	0.204273	-2.847587	0.7163171
Acc_{it-1}	780	-0.009587	0.214002	-1.77089	2.228785
CF_{it-1}	780	0.081673	0.177592	-2.241023	0.9775165
$IFRS_{dummy}$	780	0.500000	0.500321	0.000000	1.0000000
$IFRS * Earnings_{it-1}$	780	0.0416321	0.112357	-1.27526	0.7163171

$IFRS * Acc_{it-1}$	780	-0.0041881	0.144631	-1.280269	2.228785
$IFRS * CF_{it-1}$	780	0.0458202	0.132469	-2.241023	0.6012321

Note: *Earnings$_{it}$ and Earnings$_{it-1}$ = current and lag-year earnings respectively scaled by total amount of assets and measured by earnings before interest and tax (EBIT). CF$_{it-1}$ = cash flows from operations scaled by total amount of assets. ACC$_{it-1}$ = total amount of accruals scaled by total amount of assets estimated as the difference between EBIT and CF. IFRS$_{dummy}$ = dichotomous variable measured as 1 for observations within IFRS period and 0 for observations in SAS period. The remaining variables are the interaction terms between IFRS and earnings and its components.*

Included in Table 4.1 are IFRS dummy and its interaction terms with previous year earnings and its components. The maximum values of these interaction terms indicate that a greater amount of profits were made during post-IFRS regimes.

Correlation Matrix

Table 4.2 presents bivariate correlation among all the explanatory variables for possible detection of multicollinearity. In all, there is no concern for multicollinearity as the coefficients of each bivariate are less than the threshold of 0.8. To further confirm the absence of multicollinearity, we run a variance inflation factor (VIF) on these variables. The VIF of each variable is within the allowable threshold. However, due to brevity, the result of VIF test is not shown.

Table 4.2: Correlation Matrix

	Variables	A	B	C	D	E	F	G
A	$Earnings_{it-1}$	1						
B	Acc_{it-1}	0.640	1					
C	CF_{it-1}	0.379	-0.469	1				
D	$IFRS$	0.016	0.011	0.005	1			
E	$IFRS * Acc_{it-1}$	0.275	0.675	-0.497	-0.026	1		
F	$IFRS * CF_{it-1}$	0.119	-0.447	0.676	0.310	-0.674	1	
G	$IFRS * Earnings_{it-1}$	0.495	0.342	0.157	0.332	0.492	0.311	1

Note: *Earnings$_{it}$ and Earnings$_{it-1}$ = current and lag-year earnings respectively scaled by total amount of assets and measured by earnings before interest and tax (EBIT). CF$_{it-1}$ = cash flows from operations scaled by total amount of assets. ACC$_{it-1}$ = total amount of accruals scaled by total amount of assets estimated as the difference between EBIT and CF. IFRS$_{dummy}$ = dichotomous variable measured as 1 for observations within IFRS period and 0 for observations in SAS period. The remaining variables are the interaction terms between IFRS and earnings and its components.*

Regression Results

Table 4.3 presents the output from the regression results in relation to earnings persistence as well as its components. We run two separate regressions. On the one hand, panel A presents the result of the first regression in relation to earnings as a whole. Panel B on the other hand presents the second regression result in relation to earnings components. Both panels include the coefficients of IFRS period and their respective interaction terms.

In relation to Panel A, as expected, the coefficient of *Earnings$_{t-1}$* is positive and statistically significant at 1% indicating that earnings of the sample firms are persistence. Though positive, the coefficient of IFRS dummy is not statistically significant. Regarding the variable of interest, *Ifrs_Earning$_{t-1}$* the coefficient of this variable is negative and statistically significant at 1%. This finding suggests that the adoption of IFRS does not improve earnings persistence of listed firms but rather worsen it indicating that earnings of pre-IFRS adoption period are more persistence compared to earnings of post-IFRS adoption period.

Table 4.3: Regression Results on Earnings Persistence

Variable[a]	Panel A	Panel B

Variable[a]	Panel A	Panel B
$Earnings_{t-1}$	0.3473	
	(10.27)***	
$IFRS_{dummy}$	0.0151	0.0078
	(1.52)	(0.76)
$Ifrs\_Earning_{t-1}$	-0.3601	
	(6.58)***	
Cf_{t-1}		0.6069
		(14.35)***
$Ifrs\_CF_{t-1}$		-0.2780
		(-4.14)***
Acc_{t-1}		0.3833
		(10.26)***
$Ifrs\_Acc_{t-1}$		-0.4054
		(-6.99)***
Constant	.06373	0.0687
	(8.91)***	(9.12)***
R-Square	0.351	0.353

****, ** and * indicate that values are significant at 1%, 5% and 10% respectively. T-statistics are in parentheses.*

Note: *$Earnings_{it}$ and $Earnings_{it-1}$ = current and lag-year earnings respectively scaled by total amount of assets and measured by earnings before interest and tax (EBIT). CF_{it-1} = cash flows from operations scaled by total amount of assets. ACC_{it-1} = total amount of accruals scaled by total amount of assets estimated as the difference between EBIT and CF. $IFRS_{dummy}$ = dichotomous variable measured as 1 for observations within IFRS period and 0 for observations in SAS period. The remaining variables are the interaction terms between IFRS and earnings and its components.*

To further confirm our findings, we decomposed earnings into cash flow and accruals components as reported in Panel B. the coefficients of cash flow (Cf_{t-1}) and accruals (Acc_{t-1}) are both positive and statistically significant at 1% suggesting that both components jointly contribute to earnings persistence. Similarly, after interacting each component with IFRS dummy, the coefficients of these interaction terms are negative and statistically significant at 1%.

The implication of this finding is that both cash flow and accruals are more persistence in the SAS period compared to the IFRS period. Our findings are consistent with the idea that IFRS adoption in Nigeria does not improve the quality of reported earnings but rather deteriorate it. Our findings are parallel to the findings of Doukakis (2010) who found that IFRS does not lead to higher earnings persistence and its components. However, our findings contradict the findings of Liu and Sun, (2015) who found higher earnings persistence subsequent to IFRS implementation.

5. Conclusion

This study instigates whether the adoption of IFRS has resulted in higher earnings persistence across firms listed on the Nigerian Stock Exchange (NSE) overs a period of ten years from 2007 to 2016. We ran two separate econometrics models. While the first one assesses overall earnings persistence, the other one assesses components of earnings in both SAS period and IFRS period. The findings from all the assessments reveal that earnings of sample firms during SAS period are more persistence compared to their earnings during IFRS period even after decomposing earnings into operating cash flows and accruals components. On the basis of this, we conclude that the adoption of IFRS in Nigeria has not resulted in higher earnings persistence.

Our findings do not imply that IFRS is a lower standard compared to domestic GAAP. But we can rather imply that lower earnings persistence is associated with greater variability of earnings which may be related to a reduction of income smoothing practices and consequently yielding higher earnings quality. Additionally, in order to realize the benefit of improved accounting quality associated with IFRS implementation, regulatory bodies that will ensure and guarantee adequate implementation of IFRS are necessary. However, in Nigeria, the primary regulatory body is not living to its expectation. This is correct when one looks at the functions of the Financial Reporting Council of Nigeria (FRCN). After its establishment in 2011, the council among others, is saddled with the responsibility of producing a new set of corporate governance codes that will, in addition, ensure proper IFRS implementation. However, up to recent, such mandate has not been achieved.

6. Recommendation

On the bases of the findings, we offer some recommendation to both regulators and future researcher. In relation to regulators, we recommend that FRCN to take more proactive actions that will lead to the realization of all the benefits associated with IFRS adoption such issuing new codes of good corporate governance. This will go along way in enhancing quality corporate reporting capable of attracting foreign investors. When investors are attracted, there would expansion of business which will lead to economic development thereby facilitating the realisation of the vision of becoming among the twenty most significant economy of the world by the year 2020.

This study suffers from survivorship bias as some firms were excluded from sample selection due to the nature of the study. In relation to this, future researchers can replicate this study by considering firms listed on the financial service sector. Similarly, other dimensions of earnings quality could be considered in assessing the consequences of forsaking the local standards for foreign standards and compared with the result with earnings persistence metric.

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