

# Effect of IFRS Adoption on Key Performance Indices of Banks Quoted on the Nigerian Stock Exchange.

Henry K. Obi\*<sup>1</sup>, Arinze E. Anaeye\*<sup>2</sup>

<sup>1</sup>*Department of Financial Management Technology, Federal University of Technology, Owerri, Imo State, Nigeria.*

[henryobiken@gmail.com](mailto:henryobiken@gmail.com)

<sup>2</sup>*Department of Accountancy, NnamdiAzikiwe University, Awka, Nigeria.*

[arinzeanaeye@gmail.com](mailto:arinzeanaeye@gmail.com)

**Abstract**— This study examined the effect of IFRS adoption on the key financial performance indices of banks quoted on the Nigerian stock exchange. Secondary data were obtained from annual reports of the listed banks from 2008 to 2011 for pre-IFRS periods and 2012 to 2015 for post-IFRS periods. Performance indicators such as return on assets, net book value, credit risk and capital adequacy ratio were employed. The data collected were analyzed using paired sample t-test. The results revealed that there is no significant difference in the return on assets and capital adequacy ratio of quoted banks after the adoption of IFRS while there is a significant difference in quoted banks' net book value and credit risk after the adoption of IFRS. The study recommended that users of financial information should take note of key performance indices in financial statements that are significantly affected by IFRS adoption and should be able to distinguish accounting number changes caused by the transition to IFRS from those resulted from changes in the business cycle.

**Keywords**— IFRS, return on assets, net book value, credit risk, capital adequacy ratio

## I. INTRODUCTION

The process of developing generally accepted accounting principles and reporting standards that will guide the practice of accounting and the preparation and presentation of financial statements among the various nations of the world has been a long and strenuous one. The journey to the development of IFRS commenced with the launching of the International Accounting Standards Committee in the wake of the 1972 World Accounting Congress. The members of IASC in July 2000, voted to abandon the organization's former structure, which was based on professional bodies, and adopt a new structure beginning in 2001. This effort by the international standard setting body led to the formation of the International Accounting Standards Board (IASB). The IASB is an independent body that is solely responsible for establishing International Financial Reporting Standards (IFRS), including IFRS for SMEs. The IASB also approves new interpretations [1].

Before the adoption of IFRS in Nigeria, the Company and Allied Matter Act (CAMA'90) prescribed some format and

content of company financial statement disclosure requirements and auditing. It requires that the financial statement of all corporate organisations comply with the Statement of Accounting Standards (SAS). The adoption of IFRS was made in such a way that all the first tier companies listed on the stock exchange and are of public interest use it by 2012, all other company of public interest but not first tier are to adopt in 2013 and all small and medium scale entity use it by January, 2014.

Although the conceptual basis and many of the general principles under NGAAP are similar to IFRS in certain respects, many differences still exist [2] which will lead to differences in financial statements prepared and presented under IFRS and NGAAP. The Nigerian banking industry being the most regulated sector in Nigeria economy has a highly organised corporate governance. This study therefore seeks to examine the effect of IFRS adoption on the key financial performance indices of banks quoted on the Nigerian stock exchange.

## II. REVIEW OF RELATED LITERATURE

### A. *International Financial Reporting Standards (IFRS)*

International Financial Reporting Standards (IFRS) are set of guidelines and rules set by the International Accounting Standard Board (IASB) that companies and organisations can follow when compiling financial statements [3]. Since financial information is a medium of communicating financial transactions, it became imperative that different countries' accounting standards be harmonized to form a single set of accounting standard, to improve the rate at which investment and credit decisions are taken and aid international comparability of companies' performance both within and outside the reporting countries [4].

### B. *Corporate Profitability (Return on Assets)*

Corporate profitability is a measure of the amount by which a company's revenues exceeds its relevant expenses. Reference [5] stated that profitability is the business' ability to generate earnings as compared to its expenses and other relevant costs incurred during a specific period of time. Return on Assets is the ratio of annual net income to average total

assets of a business during a financial year. It measures efficiency of the business in using its assets to generate net income. It indicates the number of kobo earned on each naira of assets.

### C. Net Book Value of Firm

The book value of a company is an assessment of the value of net asset of a company, in other words called net worth of a business. Since stock price reflects how much a firm is worth, a company that is a viable growing company would be worth more than its book value for its ability to generate earnings and growth.

### D. Credit risk

Credit risk is one of significant risks of banks by the nature of their activities. Through effective management of credit risk exposure banks not only support the viability and profitability of their own business but also contribute to systemic stability and to an efficient allocation of capital in the economy [6]. Credit risk is a risk of borrower default, which happens when the counterpart fails to pay on time.

### E. Capital Adequacy Ratio (CAR)

Capital adequacy ratio (CAR) is defined as the ratio of capital to the risk-weighted sum of bank's assets [7]. It measures the amount of a bank's capital relative to the amount of its risk weighted credit exposures. The specific calculation of capital adequacy ratio is estimated by dividing total capital by total risk-weighted-assets. Generally, two types of capital are measured for use in capital adequacy ratio [8].

## III. EMPIRICAL REVIEW

Reference [9] investigated the impact of IFRS adoption on value relevance of financial information of listed Deposit Money Banks (DMBs) in Nigeria. Using the Generalized Least Square (GLS) the study documented that: Pre-IFRS financial information is value relevant; post IFRS financial information has very weak value relevance and post IFRS financial information has no relative value relevance over pre-IFRS financial information.

Reference [10] examined the impact of International Financial Reporting Standard (IFRS) on financial reporting practices of corporate establishments in Nigeria. The findings revealed that IFRS provides better information for regulators than GAAP (mean = 4.72). The finding further showed that IFRS directly affects how earnings and other key aspect of the business are accounted and reported for (mean = 4.68).

Reference [11] investigated the impact of IFRS on the performance of banks in Nigeria. The result of our analysis revealed no statistically significant difference due to the IFRS adoption.

Reference [12] indicated that there were no statistically significant differences between IFRS and CGAAP means and medians of financial ratios.

In their study, using a sample of 60 companies, Reference [2] found that the adoption of IFRS caused a negative impact on the financial ratios of the sampled companies.

Reference [13] studied the effect of IFRS adoption on the performance evaluation of a case firm using some financial ratios selected from four major categories of financial ratios. The result of the Mann-Whitney U test showed that there is no significant difference between the pair of ratios at 5% level of significance.

The researchers observed the paucity of studies on IFRS adoption and key performance indicators of Nigerian banks. This study having revealed such gap in existing literature seeks to provide empirical evidence that will fill it. Thus we hypothesize in the null form as follows:

Ho There is no significant difference in the return on assets of quoted banks before and after the adoption of IFRS.

Ho There is no significant difference in quoted banks' net book value before and after the adoption of IFRS.

Ho The difference in quoted banks' credit risk before and after the adoption of IFRS is not significant.

Ho There is no significant difference in capital adequacy ratio of quoted banks before and after the adoption of IFRS.

## IV. METHODOLOGY

The ex-post facto research design was adopted for this study. The population of this study consists of fifteen commercial banks quoted on the floor of the Nigerian Stock Exchange (NSE) from 2008 to 2015. Eleven banks quoted on the floor the Nigerian stock exchange were chosen as the sample of the study. These banks were chosen using the purposive or judgemental sampling technique because they have been consistent throughout the restructuring and consolidation efforts of the Central bank of Nigeria and have adopted the IFRS as at the date of adoption. Annual reports for 2008- 2011 for pre-IFRS periods and 2012-2015 for post-IFRS periods were obtained.

To test the hypotheses, a paired sample t- test was used to test for the statistical significance of the differences between the mean values. The decision rule is to reject the null hypothesis if the calculated (t) value falls outside the critical values at 95% level of significance that is when the probability p-value is less than 0.05.

The relationship between pre-IFRS and post-IFRS values was also analysed using the ordinary least square (OLS) regression analysis. A model was formulated to establish a relationship among the variables.

The empirical model is specified as follows:

$$\text{postIFRS} = f(\text{preIFRS})$$

The full specification of the regression equations is as follows:  $\text{postIFRS} = \alpha_0 + \alpha_1\text{preIFRS} + \varepsilon_j$

The results of the regression analysis and paired sample t-test are shown in table 1 below.

## V. RESULT AND CONCLUSION

### A. Result of Analysis

TABLE 1  
 REGRESSION OF POST IFRS WITH PRE IFRS RATIOS

Dependent Variable (Post IFRS)		Pre-IFRS	R <sup>2</sup>	Paired Sampled t-test(P-value)
Return on assets	Coefficient	0.116	0.087	-2.011 (0.051)
	t statistics (P-value)	2.002 (0.52)		
Net book value	Coefficient	0.919	0.966	-9.967 (0.000)
	t statistics (P-value)	34.537 (0.000)		
Credit Risk	Coefficient	0.398	0.328	3.126 (0.003)
	t statistics (P-value)	4.531 (0.000)		
Capital Adequacy Ratio	Coefficient	0.008	0.001	1.648 (0.107)
	t statistics (P-value)	0.238 (0.813)		

The result of the regression analyses shows that only net book value ( $R^2 = 0.966$ ) has a strong relationship while Return on assets, credit risk and capital adequacy ratio has a weak relationship. The implication of this is that net book values under both standards are strongly correlated. The findings also reveal a reduced volatility of key performance indices under IFRS because the coefficient values are less than +1.00. A coefficient of less than +1.00 indicated that the value of the key performance indices during post IFRS are lesser than the value of pre IFRS periods.

### B. Test of Statistical Significance

For each of the variables, the paired sample t-test was computed as presented below. The result of the tests is presented in Table 1 above.

$H_0$  There is no significant difference in the return on assets of quoted banks before and before and after the adoption of IFRS.

The calculated t value for pre-IFRS return on assets and post-IFRS return on assets is -2.011 which is not significant since  $\text{sig}(p) = .051 > .05$ .

Following the decision rule stated earlier, we accept the null hypothesis since  $t_{cal} < t_{tab}$  and reject the alternate hypothesis. This therefore shows that there is a no significant difference in the return on assets of quoted banks before and after the adoption of IFRS.

$H_0$  There is no significant difference in quoted banks' net book value before and after the adoption of IFRS.

The calculated t value for pre-IFRS net book value and post-IFRS net book value is -9.967 which is significant since  $\text{sig}(p) = .000 < .05$ .

Following the decision rule stated earlier, we reject the null hypothesis since the probability is significant and accept the alternate hypothesis. This therefore shows that there is a significant difference in quoted banks' net book value before and after the adoption of IFRS.

$H_0$  The difference in quoted banks' credit risk before and after the adoption of IFRS is not significant.

The calculated t value for pre-IFRS credit risk and post-IFRS credit risk is 3.126 which is significant since  $\text{sig}(p) = .003 < .05$ .

Following the decision rule stated earlier, we reject the null hypothesis since the probability is significant and accept the alternate hypothesis. The implication of this is that the difference in quoted banks' credit risk before and after the adoption of IFRS is significant.

$H_0$  There is no significant difference in capital adequacy ratio of quoted banks before and after the adoption of IFRS.

The calculated t value for pre-IFRS capital adequacy ratio and post-IFRS capital adequacy ratio is 1.648 which is significant since  $\text{sig}(p) = .107 > .05$ .

Following the decision rule stated earlier, we accept the null hypothesis since the probability is not significant. This implies that there is no significant difference in capital adequacy ratio of quoted banks before and after the adoption of IFRS.

### C. Conclusion and Recommendation

This study examined the impact of IFRS adoption on key financial performance indices of banks quoted in the Nigerian stock exchange using four key financial performance indices of banks were examined viz: return on assets, net book value, credit risk and capital adequacy ratio. From the findings of this study, it was concluded that while the adoption of IFRS

by money deposit banks listed in the Nigerian Stock Exchange (NSE) has affected net book value and credit risk significantly, its effect on return on assets and capital adequacy ratio was observed to be statistically insignificant.

The study recommended that users of financial information should take note of KPI's that were significantly affected by IFRS adoption and should be able to distinguish accounting number changes caused by the transition to IFRS from those caused by changes in the business since changes in credit risk might not eventually result in mitigation of actual risk.

#### REFERENCES

- [1] B. Mackenzie, D. Coetsee, T. Njikizana, R. Chamboko, B. Colyvas, B. Hanekom, and B. Selbst. *Wiley 2013 Interpretation and Application of International Financial Reporting Standards*. New Jersey: John Wiley & Sons Inc, 2013.
- [2] N. A. Ibiameke, and P. B. Ateboh-Briggs, "Financial ratios effect of international financial reporting standards (IFRS) adoption in Nigeria," *International Journal of Business and Management Invention*, vol. 3 iss. 3 pp.50-59, March 2014.
- [3] A. Psaroulis, "Did financial reporting quality increase after adoption of IFRS in Greece?" M.Sc. thesis, University of Piraeus, Greece, Jan. 2011.
- [4] W. E. Herbert, I. N. Tsegba, A. C. Ohanele, and L. O. Anyahara, "Adoption of IFRS: insight from Nigerian academics and practitioners," *Research Journal of Finance and Accounting*, vol. 4iss. 6. 2013
- [5] A. A. Umobong, "Assessing the impact of liquidity and profitability ratios on growth of profits in pharmaceutical firms in Nigeria," *European Journal of Accounting, Auditing and Finance Research*, Vol.3, No.10, pp.97-114, October 2015.
- [6] M. Psillaki, I. E. Tsolas, and D. Margaritis, "Evaluation of Credit Risk Based on Firm Performance," *European Journal of Operational Research*, vol. 201iss. 3, pp. 873-888. 2010
- [7] J. Hyun, and B. Rhee, "Bank capital regulation and credit supply. *Journal of Banking & Finance*," vol. 35 iss. 2, pp. 323-330. 2011
- [8] Reserve Bank of New Zealand. (2007) Capital adequacy ratios for banks –simplified explanation and example of calculation. [Online]. Available: [http://people.stern.nyu.edu/igiddy/articles/capital\\_adequacy\\_calculation.pdf](http://people.stern.nyu.edu/igiddy/articles/capital_adequacy_calculation.pdf)
- [9] N. C. Akpaka, "International financial reporting standards (IFRS) adoption and value relevance of financial information of listed deposit money banks in Nigeria," M.Sc. thesis, Ahmadu Bello University, Zaria, March, 2015.
- [10] M. A. Abata, "Impact of IFRS on Financial Reporting Practices in Nigeria," *An Online International Research Journal*, vol. 1, Iss. 1, pp. 26-35, Feb. 2015.
- [11] Y. O. Adeuja, "A Comparative Approach to the Impact of IFRS (International Financial Reporting Standards) on the Performance of Banks in Nigeria," M.Sc. thesis, Eastern Mediterranean University Gazimagusa, North Cyprus, Feb. 2015.
- [12] G. Arina, "International Financial Reporting Standards Implementation in Canada: The impact of IFRS Conversion on Canadian Public Banking Enterprises," M.Sc. thesis, East Tennessee State University, Dec. 2014.
- [13] Z. Abdul-Baki, B. Uthman, and M. Sanni, Financial ratios as performance measure: A comparison of IFRS and Nigerian GAAP. *Accounting and Management Information Systems*. Vol. 13, iss. 1, pp. 82–97, Jan. 2014.