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Abstract

Financial ratio is one of the performance measures used by investors to determine the viability of a firm. In view of this assertion, this paper investigates the effect of IFRS on key financial ratios of 11 quoted banks in Nigeria. The study addresses the research hypotheses by comparing the key financial ratios computed under the NGAAP for the three-year period, 2009-2011 and the corresponding three-year period under IFRS regime, 2013-2015 using the Mann Whitney U-Test.

The study investigates the effect of IFRS on key financial ratios of listed banks in Nigeria. Evidence from the study shows that at 5 per cent level of significance: (i) Profitability ratios of listed banks under NGAAP differ significantly from those under the IFRS regime. (ii) There is statistically significant difference between short-term solvency ratios of quoted banks under NGAAP and IFRS. (iii) Long-term solvency ratios of quoted banks under NGAAP are significantly different from those under the IFRS regime. (iv) There is significant difference between investment ratios, of listed banks, prepared under NGAAP and IFRS. Based on the above results, the study concludes that adoption of the International Financial Reporting Standard (IFRS) has significant impact on the performance of financial ratios of quoted deposit money banks in Nigeria.

Introduction

The quest for quality and uniformity in the preparation of financial statements led to the introduction of the International Financial Reporting Standards (IFRS) which was formerly called International Accounting Standards (IAS) (Donwa, Mgbame & Idemudia, 2015). In 2012, Nigeria joined other countries to adopt IFRS in order to improve the quality of its financial reports. Several accounting literatures attest that high quality accounting standards and its appropriate application are perceived as providing relevant, reliable and comparable financial information from one accounting year to another (Khanagha, 2011; Erin, Olojede & Ogundele, 2017). Understanding the impact of IFRS on a firm’s financial ratio is critical to the capacity of investors, regulators, auditors, financial analysts, as well as those in academia to take informed decisions.

Financial Accounting Standards Board (2008) posits that IFRS main objective is to produce a set of accounting standards that is able to present quality financial reporting information. Financial ratios are set of accounting parameters and standards employed by users of financial statements to determine the viability or otherwise of an investment proposal. Ball (2006) opined that IFRS adoption has led to a more accurate, precise and comprehensive financial statement. In this
regard, IFRS has improved the value relevance of accounting information to shareholders thereby enabling them to objectively evaluate firm performance for sustainable investment decisions. Investors basically rely on management to make available relevant information in the financial statements to enable them compute relevant financial ratios needed to determine the value of a firm (Umoren & Enang, 2015). Key performance indicators commonly used by firms or listed entities to determine the strength or weakness of an organization include profitability, liquidity and gearing ratios.

The increase in globalisation of accounting language for financial reporting led to the adoption of the International Financial Reporting Standards (IFRS) in many jurisdictions, including Nigeria. Prior to its adoption, different accounting standards were used in different countries, a practice characterized by problems of comparability of accounting reports across different jurisdictions. The major aim of IFRS is for countries to have a common and comparable financial statement across national boundaries so as to facilitate national economic growth (Ibiamke & Ateboh-Briggs, 2014). The harmonization of accounting standards globally improves accounting quality which invariably presents more relevant information to investors and shareholders (Land and Lang, 2002). Also, Barth, Landsman, & Lang (2008) argue that the introduction of IFRS has resulted in fewer earnings management practices in most organizations due to the high quality of IFRS.

Previous literature (Barth et al., 2008; Lee, Waler & Christensen, 2008; Emeni, Uwuigbe, Uwuigbe & Erin, 2016) showed that accounting quality has improved immensely due to the voluntary IFRS adoption in various countries. In support of this view, Hung & Subramanyam (2004) revealed that the implementation of IFRS has reduced information asymmetry of financial reports produced by organizations to their shareholders. The need for harmonization of accounting standards increased in order to help standardize companies’ financial statements especially for international investors whose interests cut across the globe. It is important to note that different accounting standards in different countries are harmonized to form a single set of accounting standard. Lee et al. (2008) argue that if IFRS is important then firms in countries that have lower disclosure quality and equity financing prior to mandatory IFRS should experience a great impact after mandatory adoption.

The spate of corporate scandals (Toshiba accounting scandal, 2015; Lehman, 2008, etc.) among big companies globally and locally in the last ten years has cast serious doubt on the quality of financial disclosures, especially of key financial ratios reported by firms. This development has led to loss of confidence on the information content of financial reports produced by organizations. The corporate scandals point to weak corporate governance, inadequate accounting standards and creative accounting. Weak financial disclosure has necessitated the emergence of high quality accounting standards in order to improve the quality of financial information disclosure. In Nigeria, there are several cases of corporate failures which include those of Cadbury Plc., Lever Brothers (presently known as Unilever Nigeria Plc., as well as banks failures. All these are linked to weak corporate governance, ineffective accounting standards and poor financial disclosure system (Adeyemi & Fagbemi, 2010; Umoren, 2010; Wallace, Naser, & Moram, 1994).

It is against this background that this study seeks to examine whether the adoption of IFRS by Nigerian banks has led to an improvement in the performance of key financial ratios compared to what it was under the Nigerian GAAP standard. Studies in this area, particularly in developing economies have been quite scanty. Previous studies (Ibiamke & Ateboh-Briggs, 2014; Zayyad, Ahmed and Mubaraq, 2014) have produced mixed results. This study therefore seeks contribute to literature by extending the study to sub-Saharan Africa. Specifically, the study seeks to compare the performance of key financial ratios in the Nigerian banking sector under the IFRS and the NGAAP in order to determine if there is a significant improvement in their performance following the introduction of the IFRS. To achieve the above objective, the following hypotheses were formulated in the null form.

$H_{01}$: Profitability ratios of listed banks under NGAAP do not significantly differ from those under the IFRS regime.

$H_{02}$: There is no significant difference between short-term solvency ratios of quoted banks under NGAAP and under the corresponding IFRS period.

$H_{03}$: Long-term solvency ratios of quoted banks under NGAAP are not significantly different from those under the IFRS regime.

$H_{04}$: There is no significant difference between investment ratios, of listed banks, prepared under NGAAP and IFRS.

The rest of the paper is organized as follows: Section 2 reviews the literature on the subject area. Section 3 discusses the research method adopted as well as specification of the model employed in the study while section 4 presents and discusses the result of the study. Section 5 summarizes and concludes the paper.
Literature Review

The aim of IFRS was to provide a single set of high quality global accounting standards and accurate financial reports to improve comparability and provide value-relevant information to investors (Blanchet, Racicot & Girar, 2011). IFRS was developed through the International Accounting Standard Board (IASB). Blanchette et al. (2011) opine that the features of IFRS include the principle-based approach, improved transparency, concept of comprehensive income and fair value orientation.

Financial ratios are used for various purposes. For instance, they can be used to determine credit worthiness as well as evaluate business and managerial performance. Financial ratios are employed by investors, brokers, bankers, etc to analyse the financial performance or financial condition of a company (Blanchette et al., 2011). There are four financial ratios commonly used in accessing firm performance: profitability ratios, short term solvency ratios, long term solvency ratios and investment ratios.

Some studies have been conducted to determine the effect of IFRS on key financial ratios. Blanchett et al. (2011) examined the effect on IFRS on financial ratios in Canada using liquidity, leverage, profitability and coverage ratios as proxies. The study found that neither IFRS nor Canada GAAP produced a higher result. The result showed that liquidity ratios and leverage ratios revealed a higher performance under Canadian GAAP while profitability ratios and coverage ratios presented a higher performance under the IFRS period. Punda (2011) investigated the impact of IFRS adoption on key financial ratios of entities listed on the UK stock market. The result shows a significant difference in the performance of the ratios following the change from UK GAAP to IFRS.

Latridis (2010) examined the transition effect of IFRS on financial reporting in UK. The study indicates that IFRS adoption had a significant effect on financial performance of companies in UK. Umoren and Enang (2015) examined IFRS adoption and value relevance on financial statement of Nigerian listed banks using the least square regression and descriptive statistics to analyse the data. They find that earnings per share increased the value relevance during the post IFRS period while book value per share of equity was reduced.

Onipe, Onyabe and Usman (2015) examined the effect of IFRS on value relevance and key financial indicators. The study shows that IFRS has a significant positive impact on value relevance of accounting information. Ibiame and Ateboh-Briggs (2014) examined the performance of financial ratios following the IFRS adoption in Nigeria using the Levene’s paired sample statistics. The study reveals that IFRS adoption has negative impact on financial ratios of listed companies in Nigeria.

Zayyad, Ahmed, and Mubaraq (2014) examined the effect of IFRS on financial ratios of listed manufacturing firms in Nigeria. The study compared IFRS with NGAAP for a period of four (4) years. The study employed a Kolmogorov statistical method to test the set of data used in the study. The study reveals that IFRS periods do not show significance compared to NGAAP periods.

Rainsbury, Diego and Walker (2010) examined the impact on financial statement of adopting IFRS in New Zealand. The result shows 87% of firms are affected by IFRS adoption in New Zealand and the median and interquartile range indicates that in most firms the impact on IFRS is not significant. Hung and Subramanyam (2004) examined the effect of adopting IFRS on financial statement and value relevance and it was observed that the new regime had greater emphasis on balance sheet and fair valuation than income smoothing. Mc-Connelle (2012) examines the impact of IFRS on financial ratios of fifty (50) firms in Canada from 2010-2011. The study found that IFRS has a positive impact on financial ratios.

Terzi, Oktem and Sen (2013) conducted a study on IFRS and financial ratios in manufacturing firms using the logistic regression technique. They find that IFRS has significant impact on items like shareholder equity, long term liabilities, fixed assets. The study further shows that assets turnover ratios, current ratios and financial leverage ratios are significantly affected by the new regime. Daske and Gerhardt (2006) investigated the effect of IFRS adoption by three European countries on accounting quality and discovered that accounting quality significantly increased in the sampled companies which voluntarily adopted IFRS.

Aubert and Grudnitski (2011) analyzed the impact of mandatory IFRS on financial ratios of five (5) European countries. The study found that all financial ratios under IFRS increased significantly compared to their various local
standards. Agas and Aktas (2007) conducted a study on Turkish firms from 2004 to 2005. The study shows that only current ratios and net asset turnover ratios are affected by IFRS. Agostino, Drago and Silipo (2011) examined the consequences of a compulsory adoption of IFRS from a stewardship perspective and it was reported that earnings are more value relevant after the introduction of IFRS.

Lantto and Sahlstrom (2009) conducted a research on the impact of IFRS adoption on key financial ratios of Finnish listed firms and the study indicates that the adoption of IFRS drastically changed the magnitude of key accounting ratios of Finnish companies. Based on the outcome in Lantto and Sahlstrom (2009), Punda (2011) examined the effect of IFRS adoption on the key financial ratios of UK listed firms. The study also reports a substantial change in the key performance indicators in the post-IFRS adoption period.

**Methodology**

The objective of this research is to determine whether or not there is a significant difference in the performance of key financial ratios of selected banks listed on the Nigerian stock exchange between the Nigeria GAAP (NGAAP) and IFRS periods. This was done by comparing the financial ratios computed under NGAAP with those computed under IFRS for three years period under each regime (from 2009 to 2011 under NGAAP regime and 2013 to 2015 under IFRS regime). The population under study is 15 listed banks on the Nigerian Stock Exchange as at 31st December, 2015 (Nigerian Stock Exchange Factsheet, 2015). The sample size of 11 banks was derived using Taro Yamane formula.

The study relies on secondary data obtained from the banks’ annual reports for the respective periods (2009 to 2011 under the NGAAP regime and 2013 to 2015 for IFRS regime). The mean differences between the two regimes were considered. Empirical analysis was performed to check if there is a significant difference between the ratios prepared under IFRS regime and NGAAP regime. Analytical technique of Mann-Whitney statistics was adopted to test for significant difference among the selected financial ratios for the IFRS and NGAAP period.

**Model Specification**

To test the above hypotheses, the following regression model was developed:

\[
\text{NGAAP}_{it} = \beta_0 + \beta_1 \sum \text{PROFITABILITY}_{it} + \beta_2 \sum \text{SHTERMSOL}_{it} + \beta_3 \sum \text{LGTERMSOL}_{it} + \beta_4 \sum \text{INV}_{it} + \varepsilon_{it} \tag{i}
\]

\[
\text{IFRS}_{it} = \beta_0 + \beta_1 \sum \text{PROFITABILITY}_{it} + \beta_2 \sum \text{SHTERMSOL}_{it} + \beta_3 \sum \text{LGTERMSOL}_{it} + \beta_4 \sum \text{INV}_{it} + \varepsilon_{it} \tag{ii}
\]

Where, \(\sum \text{PROFITABILITY}_{it}\) includes ratios under profitability ratios which are:
- GPM- Gross Profit Margin
- NPM- Net Profit Margin
- ROCE- Return on Capital Employed

\(\sum \text{SHTERMSOL}_{it}\) includes ratios under short term solvency which are:
- CR- Current ratio
- ATM- Acid Test Ratio

\(\sum \text{LGTERMSOL}_{it}\) includes ratios under long term solvency which are:
- DR- Debt Ratio
- GR- Gearing Ratio
- CFR- Cash Flow Ratio

\(\sum \text{INV}_{it}\) includes ratios under investment ratio which are:
- EPS- Earnings per share
- DPS- Dividend per share
- DP- Dividend pay-out
Results and Discussion of Findings

Table 1 presents One-Sample Kolmogorov-Smirnov Test for normality. There are eleven (11) financial ratios computed for IFRS and NGAAP respectively, making a total of 66 firm observation for the six year period.

Table 1: One Sample Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>K-S Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>66</td>
<td>2.4214</td>
<td>8.5124</td>
<td>1.897</td>
<td>0.002</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation (2017) using SPSS Version 20

The above result reveals the level of significance (0.002) to be less than 5% (0.05). This implies that the overall data do not follow a normal distribution pattern. This result negates the assumption of normality. Normality level is assumed when a level of significance is greater than 0.05. Therefore, the best possible option is to consider non-parametric statistical method (AbdulRahim, 2009).

The descriptive statistics is presented in table 2 below

Table 2: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Max</td>
<td>Mean</td>
</tr>
<tr>
<td>PROFITABILITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPM</td>
<td>3</td>
<td>0.13</td>
</tr>
<tr>
<td>NPM</td>
<td>3</td>
<td>0.035</td>
</tr>
<tr>
<td>ROCE</td>
<td>3</td>
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<tr>
<td>Overall Mean</td>
<td></td>
<td>0.093</td>
</tr>
<tr>
<td>SHTERMSOL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>3</td>
<td>1.02</td>
</tr>
<tr>
<td>ATR</td>
<td>3</td>
<td>0.75</td>
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<tr>
<td>Overall Mean</td>
<td></td>
<td>1.152</td>
</tr>
<tr>
<td>LGTERMSOL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DR</td>
<td>3</td>
<td>0.712</td>
</tr>
<tr>
<td>GR</td>
<td>3</td>
<td>0.512</td>
</tr>
<tr>
<td>CFR</td>
<td>3</td>
<td>0.25</td>
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<tr>
<td>Overall Mean</td>
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<td>0.667</td>
</tr>
<tr>
<td>INV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPS</td>
<td>3</td>
<td>19.51</td>
</tr>
<tr>
<td>DPS</td>
<td>3</td>
<td>5.42</td>
</tr>
<tr>
<td>DP</td>
<td>3</td>
<td>0.651</td>
</tr>
<tr>
<td>Overall Mean</td>
<td></td>
<td>9.9753</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation (2017) using SPSS Version 20

Table 2 presents the performance of the ratios in the respective periods under NGAAP and IFRS. The overall and individual category of ratios under profitability ratio indicates that IFRS regime shows a higher profitability ratio than under NGAAP. Similarly, for short term solvency ratio, though the current is marginally higher under IFRS the acid test ratio, the mean of the acid test ratio is substantially higher under IFRS. The long term solvency ratio however presents a
contrary result with NGAAP posting higher values for each category of ratios. Investment ratios provide a mixed result with dividend per share (DPS) and dividend pay-out (DP) higher under the IFRS while the earnings per share (EPS) is higher under the NGAAP. Overall mean of investment ratios is shown to be higher under NGAAP compared to IFRS.

A comparison of the above financial ratios therefore shows that neither the IFRS nor the NGAAP consistently outperformed the other. In order to ascertain whether there are significant differences in the above result, the Mann-Whitney Test is presented as follows:

<table>
<thead>
<tr>
<th>Ratios</th>
<th>Standards</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Z-Statistics</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROFITABILITY</td>
<td>NGAAP</td>
<td>33</td>
<td>2.97</td>
<td>13.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IFRS</td>
<td>33</td>
<td>4.54</td>
<td>6.00</td>
<td>-1.349</td>
<td>0.04</td>
</tr>
<tr>
<td>SHTERMSOL</td>
<td>NGAAP</td>
<td>33</td>
<td>3.02</td>
<td>10.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IFRS</td>
<td>33</td>
<td>4.52</td>
<td>14.00</td>
<td>-0.572</td>
<td>0.025</td>
</tr>
<tr>
<td>LGTERMSOL</td>
<td>NGAAP</td>
<td>33</td>
<td>4.94</td>
<td>12.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IFRS</td>
<td>33</td>
<td>2.25</td>
<td>8.00</td>
<td>-0.925</td>
<td>0.04</td>
</tr>
<tr>
<td>INV</td>
<td>NGAAP</td>
<td>33</td>
<td>4.03</td>
<td>11.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IFRS</td>
<td>33</td>
<td>4.02</td>
<td>11.00</td>
<td>-0.729</td>
<td>0.015</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation (2017) using SPSS Version 20

Table 3 presents the result of Mann-Whitney U-Test for both NGAAP and IFRS. The background analysis of the data shows that NGAAP has a higher mean score in terms of long term solvency ratios (4.94 > 2.25) and investment ratios (4.03 > 4.02) while IFRS reveals a higher mean score for profitability ratios (4.54 > 2.97) and short term solvency ratios (4.52 > 3.02). Investment ratio is treated quite differently under the two periods; in the NGAAP, proposed dividend is treated as liability while under IFRS, proposed dividend is treated as asset. This result is consistent with the findings of Ibiamke & Ateboh-Briggs (2014); Zayyad, Ahmed & Mubaraq (2014) which show that the adoption of IFRS is not in any way superior to NGAAP.

To test for statistical significance of difference, hypothesis 1, shows that P (0.04) < 0.05. From this result, we conclude that data provide statistically significant evidence of a difference between profitability ratios under NGAAP and IFRS regimes (Mann Whitney U-Test; Z = -1.349, P = 0.04). This implies a rejection of the null hypothesis.

For hypothesis 2, since P (0.025) < 0.05, we conclude that there is a statistically significant evidence of a difference between short-term solvency ratios under NGAAP and IFRS (Mann Whitney U- Test; Z = -0.572, P = 0.025). This implies a rejection of the null hypothesis.

For hypothesis 3, since P (0.04) < 0.05, we conclude that data provide a statistically significant evidence of a difference between investment ratios under NGAAP and IFRS regimes (Mann Whitney U- Test; Z = -0.925, P = 0.04). This also implies a rejection of the null hypothesis.

For hypothesis 4, since P (0.015) < 0.05, we conclude that there is a statistically significant evidence of a difference between short-term solvency ratios under NGAAP and IFRS (Mann Whitney U- Test; Z = -0.729, P = 0.015). This implies a rejection of the null hypothesis.

Summary of Findings and Conclusion

The study investigates the effect of IFRS on key financial ratios of listed banks in Nigeria. The Mann Whitney U-Test was used to test for statistical difference between the performance of financial ratios under NGAAP and IFRS. Evidence from the study shows that at 5 per cent level of significance:

- Profitability ratios of listed banks under NGAAP differ significantly from those under the IFRS regime.
- There is statistically significant difference between short-term solvency ratios of quoted banks under NGAAP and IFRS.
- Long-term solvency ratios of quoted banks under NGAAP are significantly different from those under the IFRS regime.
- There is significant difference between investment ratios, of listed banks, prepared under NGAAP and IFRS.
Based on the above results, the study concludes that adoption of the International Financial Reporting Standard (IFRS) has significant impact on the performance of financial ratios of quoted deposit money banks in Nigeria.

References


