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The relevance of value added reporting in assessing the financial soundness of deposit money banks in Nigeria

Abstract

This study examines the effect of value added reporting on the performance of deposit money banks (DMBs) in Nigeria between 2008 and 2017. It adopts two models for analysis using assets and equity (Statement of Financial Position [SFP] indices) as dependent variables while taking dividends, retained earnings, tax and wages (Statement of Value Added [SVA] indices) as independent variables. The study, using the panel regression analytical technique, reveals that SVA indices exert positive influence on asset and equity of the DMBs. Moreover, it shows that all the independent variables exert significant influence on the performance of the DMBs in the two models. The significant positive relationship between the SVA indices and the SFP indices reveals that the SVA functions in consonance with the SFP. This study therefore recommends that regulators should analyse and review the SVA in assessing the financial soundness of banks and that the SVA should be moved from the later end of the financial statements and upgraded to appear immediately after the SFP. This will accord it the importance it exerts and make it visible to regulators, investors, analysts and directors.

1. Introduction

Nigeria had experienced cases of bank distress and failure since inception, and the trend continues, even in the face of consolidation, capitalization and regulatory interventions. It becomes imperative for investors and their advisors to ascertain if a bank was going to survive before hard earned-funds are invested in them. Do investors and analysts use the right instruments to measure the health of these banks or do they concentrate more on profit performance? Are regulators looking at wealth created to measure the health status of banks? Erstwhile emphasis has been on measuring earnings and profits, which lays emphasis on the shareholders to the exclusion of other contributors to the wealth of the
firm (Kijewska, Bluszcz and Sojda, 2015). Any analysis based on profit performance and subsequent decisions made therefrom would only be considering the sole interests of shareholders, to the exclusion of other stakeholders.

The audited financial statements are laid before shareholders as the final account of stewardship of management to owners at the general meeting. Investors also base their investment decisions on the published audited financial statements. For a firm to grow it must earn returns from capital invested. Shareholders cannot continue to pump money without expectation of returns. Why buy into a bank that was going to die?

The financial statements would contain the Statement of Accounting Policies, the Statement of Financial Position, the Statement of Profit or Loss and Other Comprehensive Income, the Statement of Cash Flows, the Statement of Changes in Equity, and the Statement of Value Added (S334 [2] CAMA LFN 2004). The Statement of Accounting Policies shows the various underlying policies that form the basis upon which the accounts are prepared. The Statement of Financial Position shows the assets and liabilities, that is, the state of affairs of the firm, at the reporting date. The Statement of Profit or Loss and Other Comprehensive Income (or the Income Statement) presents the financial performance of the firm showing the net earnings attributable to the ordinary shareholders. The Statement of Cash Flows shows the movement of cash in and out of the firm. The Statement of Changes in Equity shows movements in the share capital of the firm during the reporting period. The Statement of Value Added (SVA) shows the wealth created by the firm and how the wealth is distributed among the stakeholders.

Of the six statements, only two are measures of performance. The first is the Statement of Comprehensive Income (SCI) which measures profitability and the second is the Statement of Value Added (SVA) which measures wealth created. Of these two statements, the SCI is the most consulted and used for financial statement analysis (Morley, 1979). It comes immediately after the Statement of Financial Position (SFP) as the second most important of the financial statements. Nonetheless the SVA is relegated to the last pages of the financial statements, under the ‘Other Information’ or ‘Complementary Information’ section, as if to say that it belongs to the appendix. In many countries, like India (Subramaniyam and Nimalathasan, 2010) and South Africa (Stainbank, 2015), the SVA is not even required, and as such, it is not prepared nor included in the financial statements.

It is hoped that the results of this research work will project the SVA to where it rightly belongs in the compilation of the financial statements of listed entities. The SVA is currently relegated to the background in financial reports as it appears at the tail end where other complimentary information is placed. More importantly, wealth creation is the main preoccupation of finance managers. Then, why is the statement showing how wealth is created (that is, the SVA) currently being hidden or made not to feature conspicuously in the annual reports of banks?

The survival, stability and growth of an entity within a society depend on the wealth it creates through the collective efforts of its stakeholders (Mandal and Goswami, 2008). Thus, there is a need to also measure the wealth created or the value added by an entity and this is done by the Statement of Value Added (SVA). Only a few countries mandated
the preparation and inclusion of the SVA in the annual financial statements and Nigeria is one of them. The SVA shows gross earnings and the deductible bought-in materials and services before arriving at the value added. The value added is then shared amongst the contributory stakeholders. The outcome had been used as basis for negotiating reward for labour in the UK, bringing up the Value Added Incentive Payment Scheme (VAIPS), the profit-sharing schemes, and Value-based performance analysis (Subramaniyam and Nimalathasan, 2010).

The conventional financial statements analysis concentrates on information contained in the SFP and the SCI though there are other statements in the bundle (S334 [2] CAMA LFN 2004). The SFP is a statement of affairs at a certain date, which does not tell about the bank’s ability to survive or to withstand stress; while the SCI is a statement of profitability, which does not tell about the bank’s ability to grow. Even the Prudential Guidelines (2010) issued and used by the Central Bank of Nigeria (albeit in any other country for that matter) rely heavily on the SFP and SCI for information. Banks have been known to fail few years after seemingly bountiful, prosperous results. Similarly, failure was recorded shortly after consolidation in the Nigerian banking industry, turning the ‘too big to fail’ myth to a fallacy. The existing parameters derived from the usage of SFP and SCI have tended to fail operators, analysts, and regulators. They had concentrated on earnings (profitability) in rating banks but had inadvertently left out value added or wealth created (i.e. performance) in their analysis.

Some scholars like Modigliani and Miller (1961) had worked on the irrelevance of dividends on a firm’s value while Magni (2007) proved that where agency issues are present, the dividends policy may not be as important as the NPV of new projects. Thus, retained earnings must be invested in projects with positive NPV for the firm to grow in value. Machado, Macedo and Machado (2015) analysed the ratio between stock price and wealth created per share (WCS) using linear regressions on quoted non-financial firms in Brazil. WCS was compared with Net Profit per Share (NPS). Evidence showed that the relationship between WCS and the stock price was significant; and that the stock market reacts more to WCS than NPS. The conclusion was that WCS is a better proxy than NPS when looking at a firm’s performance. Yogesha and Mahadevappa (2014) showed that SVA is equally a measure of productivity and efficiency. Morley (1979) recommended that an accounting standard be issued to mandate the presentation of SVA as part of annual financial statements across countries. In the same vein, Aruwa (2009) recommended that SVA should be used to construct value added ratios useful as diagnostic and predictive tools and for making performance comparison.

Performance portends power to survive, resist stress and grow. According to Bhandari (nd), existence is possible without making profits but survival is impossible without adding value. Thus, he proved that the SVA provides a picture (clearer than the SCI) of the firm’s operating results accruing to each class of resource and how such value is shared amongst the various stakeholders, during an accounting period. It is therefore regarded as an integral part of socioeconomic responsibility accounting and reporting (Subramaniyam and Nimalathasan, 2010). It is a measure of performance that will give earlier signal of down sliding performance in contribution by any of the stakeholders and thus the future ability of the bank to survive, resist stress and grow. Nonetheless this
measure of performance is relegated to the background in financial statements presentation and analysis by operators and regulators of the banking industry. The SVA is even at the tail end of the financial reports of banks, whereas it is the place to check to ascertain whether a firm is performing well or otherwise. It is thus the aim of this study to investigate value-added (or wealth created) by banks and their distribution to contributors as determinants of the survival for quoted banks in Nigeria.

2. Literature Review

2.1 Conceptual Literature

The SVA is a report of performance measurement. It presents how the income of the firm is shared among the stakeholders, comprising employees, governments, lenders and shareholders. It provides a picture (clearer than the SCI) of the firm’s operating results accruing to each class of resource and how such value is shared amongst the various stakeholders, during an accounting period. It shows the quantum of total net value added and their distributions among the value contributors. It is therefore regarded as an integral part of socioeconomic responsibility accounting and reporting (Subramaniyam and Nimalathasan 2010).

A serious debate on value added (VA) started in the 1970s in Europe. The earliest suggestion for its inclusion in US firms’ annual reports was by the US Treasury, in the 18th century. The publication of the Corporate Report in the UK, in 1975 marked a turning point in the acceptance of SVA as an addendum to the financial statements. According to Morley (1979), the Report rationalized the inclusion of the SVA thus:

The simplest and most immediate way of putting profit into proper perspective vis-à-vis the whole enterprise as a collective effort by capital, management and employees is by presentation of a statement of value added (that is, sales income less materials and services purchased). Value added (that is, sales income less materials and services purchased) is the wealth the reporting entity has been able to create by its own and its employees’ efforts. This statement would show how value added has been used to pay those contributing to its creation. It usefully elaborates on the [income statement], and in time may come to be regarded as a preferable way of describing performance. The statement of value added provides a useful measure to help in gauging performance and activity. The figure of value added can be a pointer to the net output of the firm, and by relating other key figures (for example, capital employed and employee costs), significant indicators of performance may be obtained.

It was laid before UK parliament in 1977 and its acceptance and inclusion started spreading. According to Morley (1979), a survey had reported that 20 percent of the large UK firms included SVA in their financial reports in 1980. The trade unions promoted the adoption because they saw it as a basis for negotiating reward for labour. This brought up the value added incentive payment scheme (VAIPS), the profit-sharing schemes, and VA-based performance analysis. The professional institutes in the UK produced research papers that further helped in accelerating acceptance. According to Rathi (2017), SVA is
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now being considered as an additional tool for measuring corporate performance than conventional measures based on traditional accounting assessment of a business entity. Thus it is now classified a social responsibility accounting tool than a financial reporting tool (Hossain, 2017).

2.2 Empirical Review

In the literature, many studies have examined SVA. Morley (1979) reported that the advantages of the SVA were difficult to verify but he saw it as a useful newcomer to financial reporting. He recommended that an accounting standard be issued and then concluded that value added be obtained after removing depreciation. In a recent work, Machado, Macedo and Machado (2015) analysed the relevance of the SVA to investors and analysts of the Brazilian capital markets. The analysis involved the ratio between stock price and wealth created per share (WCS) using linear regressions on quoted non-financial firms. WCS was compared with Net Profit per Share (NPS). Evidence showed that SVA has relevant information content: the relationship between WCS and the stock price was significant; and that the stock market reacts more to WCS than NPS. The conclusion was that WCS is a better proxy than NPS when looking at a firm’s performance. Yogesha and Mahadevappa (2014) had analysed the value added ratio of a listed company in India and showed that the ratios were useful as a measure of productivity and efficiency. Around the same period, Stainbank (2015) presented results of a survey of how SVA were constructed in South Africa and observed that there was diversity in treatments, presentation and terminology, making comparability across form a difficult exercise. He concluded that SVA was not useful since it was not derived from a systematically applied consistent model.

In the Nigerian environment, Suleiman and Aruwa (nd) applied correlation analysis on value added ratios and survey results. The outcome was that value added ratios were positively correlated, but negatively correlated with sales. Stakeholder found SVA reliable, complete and objective but less used for information needs. They recommended that SVA be used to construct value added ratios useful as diagnostic and predictive tools and for making performance comparison. Meanwhile, Subramaniyam and Nimalathasan (2010) had constructed the SVA from the financial statements of a manufacturing firm in India (listed in Sri Lanka) to demonstrate that SVA can give additional information that would satisfy all the stakeholders of the enterprise and they computed value added ratios for eight years to measure the productive performance of the sample-firm.

Hossain (2017) cited the Chairman of Avon Products, USA, positing that the executives have roles beyond maximizing shareholders’ wealth; that they have 40,000 employees and 1.3 million representatives across the globe; that they have numerous suppliers, corporate customers and communities; and that the executives have higher stakes in the company than the shareholders. Hossain was able to conclude that SVA satisfies the objective of distributive justice, sustains all stakeholders, helps in dividend policy decisions, links macro and micro accounting decisions, and balances short-term accounting profit with management’s strategic focus. Thus, SVA is viewed as supportive of managerial efficiency and the social responsibility of business. This is in consonance with the findings of Bagienska (2016) that contemporary business entities carry out their
activity based only on strategies that yield profit. It behoves of enterprises to take into consideration employees, the environment and other stakeholder, not just shareholders.

3. Methodology

3.1 Data

The objective of this study is to reveal how banks’ survival is hinged on WCS and EPS, and to show the correlation between WCS and EPS. Eight of the DMBs quoted on the Nigerian Stock Exchange are selected for the research work and data are extracts from their financial statements covering 2008 - 2017. The wealth created is extracted from their SVA for the ten-year period. The research is limited to banks quoted on the Nigerian Stock Exchange and data are extracts from the financial statements under downloads in the Investors’ Relations section of the selected DMBs’ websites.

3.2 Model Specification

The shareholders’ interest as presented in the Income Statement can be stated in equation form as:

\[ \text{RTE} = \text{SRV} - \text{BIM} - \text{DEP} - \text{WAGE} - \text{INT} - \text{DIV} - \text{TAX} \]  

Adding (WAGE + INT + DEP + DIV + TAX) to both sides, we have:

\[ \text{SRV} - \text{BIM} = \text{WAGE} + \text{INT} + \text{DIV} + \text{TAX} + \text{RTE} \]  

This is the gross Value Added.

Subtracting DEP from both sides of equation 2, we have

\[ \text{SRV} - \text{BIM} - \text{DEP} = \text{WAGE} + \text{INT} + \text{DIV} + \text{TAX} + \text{RTE} \]  

This is the net Value Added.

Where:

- \( \text{SRV} \) = Sales revenue
- \( \text{BIM} \) = Bought-in materials and services
- \( \text{DEP} \) = Depreciation of assets
- \( \text{WAGE} \) = Wages paid to employees
- \( \text{INT} \) = Interests paid to lenders
- \( \text{DIV} \) = Dividends paid to shareholders
- \( \text{TAX} \) = Tax paid to government
- \( \text{RTE} \) = Retained earnings

The equation can be restated as:

\[ \text{NVA} = \text{WAGE} + \text{INT} + \text{DIV} + \text{TAX} + \text{RTE} \]  

Where:
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NVA = Net Value Added = SRV - BIM - DEP

Specifically, the objective of the study is to investigate the impact of value added reporting on bank performance in Nigeria. Hence, the models formulated for the study is stated below.

Equation 4 states that

\[ NVA = WAGE + INT + DIV + TAX + DEP + RTE \]  \hspace{1cm} (5)

Deriving from this, the model for this study shall be two equations. The first will investigate the relationship between the components of net value added and total assets while the second will be between net value added components and equity. The two equations are as shown below:

\[ \text{Asset} = \alpha + \beta_1 WAGES + \beta_2 \text{INT} + \beta_3 \text{DIV} + \beta_4 \text{TAX} + \beta_5 \text{DEP} + \beta_6 \text{RTE} + \varepsilon \]  \hspace{1cm} (6)

\[ \text{Equity} = \alpha + \beta_1 WAGES + \beta_2 \text{INT} + \beta_3 \text{DIV} + \beta_4 \text{TAX} + \beta_5 \text{DEP} + \beta_6 \text{RTE} + \varepsilon \]  \hspace{1cm} (7)

Where:

WAGE = Wages paid to employees
INT = Interests paid to lenders
DIV = Dividends paid to shareholders
TAX = Tax paid to government
DEP = Depreciation on Non-current Assets
RTE = Retained earnings
\( \alpha \) = constant
\( \beta \) = the degree of variability or slope of each independent variable
\( \varepsilon \) = error term.

The required analysis covered ten years for eight out of the fifteen listed banks; and evidence was based on panel data.

4. Analysis and Discussion of Result

The data for the eight banks for the ten years were collated and tested for correlation, to know which of the independent variables may not explain each of the two dependent variables. The results are shown in table 1 below.
Table 1. Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>Wage</th>
<th>Tax</th>
<th>Int</th>
<th>Div</th>
<th>Dep</th>
<th>Rte</th>
<th>Asset</th>
<th>Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax</td>
<td>0.39</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Int</td>
<td>0.13</td>
<td>0.03</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Div</td>
<td>0.65</td>
<td>0.51</td>
<td>0.10</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dep</td>
<td>0.20</td>
<td>0.02</td>
<td>0.05</td>
<td>0.13</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rte</td>
<td>0.32</td>
<td>0.71</td>
<td>0.11</td>
<td>0.29</td>
<td>-0.04</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset</td>
<td>0.88</td>
<td>0.61</td>
<td>0.24</td>
<td>0.70</td>
<td>0.21</td>
<td>0.62</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td>0.78</td>
<td>0.71</td>
<td>0.19</td>
<td>0.79</td>
<td>0.21</td>
<td>0.65</td>
<td>0.94</td>
<td>1</td>
</tr>
</tbody>
</table>

Computation by Authors (2018), using E-Views 9 Software

Table 1 shows that only four (WAGE, TAX, DIV and RTE) out of the six independent variables show significant correlation with the two dependent variables (Equity and Assets). The two variables that fail the test fall below 25 percent. Thus, interest paid to creditors (INT) and depreciation of Non-current Assets (DEP) are not relevant in this analysis. Hence, both were excluded from the regression equations. This can be explained from the behaviour of the two variables: both interests and depreciation are fixed expenses that must be incurred irrespective of the level of equity or assets.

Thus, the regression equations become:

\[
\text{Asset} = \alpha + \beta_1 \text{WAGES} + \beta_2 \text{DIV} + \beta_3 \text{TAX} + \beta_4 \text{RTE} + \varepsilon \tag{8}
\]

\[
\text{Equity} = \alpha + \beta_1 \text{WAGES} + \beta_2 \text{DIV} + \beta_3 \text{TAX} + \beta_4 \text{RTE} + \varepsilon \tag{9}
\]

The panel fixed effect displayed in Table 2 used Asset as the dependent variable while dividends paid to lenders (DIV), retained earnings (RTE), tax paid to government (TAX) and wages paid to employees (WAGE) are used as the explanatory variables. The table reveals that the constant parameter has a positive coefficient of 110648.4 units and its p-value is 0.218 indicating that when all other variables are held constant, value added reporting has a positive effect on bank performance in Nigeria. Also, dividends paid to shareholders (DIV) is positively related to asset to the tune of 22.829 units with an accompanying p-value of 0.000 implying that DIV has a positive and significant influence on asset. Similarly, retained earnings (RTE) has a positive value of 8.273 units with a probability value of 0.000 indicating that RTE exerts a positive and significant effect on Asset. Equally, tax paid to government (TAX) has a positive value to the tune of 25.809 units with a probability value of 0.009 and this implies that tax exerts a positive and significant effect on assets of the DMBs. Furthermore, wages paid to employees (WAGE) is positively valued at 34.293 units with 0.000 as its p-value. This indicates that wage has a positive and significant effect on assets of the DMBs during the study period. Also, a proper look at the table reveals that the cross sectional variability of the firms shows that the fixed effect of value added reporting on the assets of the firms varies which means that value added reporting has different effects on the banks assuming time is invariant.
Table 2. Panel Fixed Effect

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGE</td>
<td>34.293</td>
<td>4.252</td>
<td>8.064</td>
<td>0.000</td>
</tr>
<tr>
<td>TAX</td>
<td>25.609</td>
<td>9.702</td>
<td>2.660</td>
<td>0.009</td>
</tr>
<tr>
<td>DIV</td>
<td>22.829</td>
<td>4.259</td>
<td>5.359</td>
<td>0.000</td>
</tr>
<tr>
<td>RTE</td>
<td>8.273</td>
<td>2.118</td>
<td>3.907</td>
<td>0.000</td>
</tr>
<tr>
<td>C</td>
<td>110648.400</td>
<td>89033.310</td>
<td>1.243</td>
<td>0.218</td>
</tr>
</tbody>
</table>

Fixed Effects (Cross)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WEMA</td>
<td>-95804.29</td>
</tr>
<tr>
<td>ZENITH</td>
<td>-570952.4</td>
</tr>
<tr>
<td>ACCESS</td>
<td>238929.50</td>
</tr>
<tr>
<td>DIAMOND</td>
<td>235222.80</td>
</tr>
<tr>
<td>STANBIC</td>
<td>-177673.70</td>
</tr>
<tr>
<td>GTB</td>
<td>9236.58</td>
</tr>
<tr>
<td>UBA</td>
<td>315584.90</td>
</tr>
<tr>
<td>ECOBANK</td>
<td>45456.53</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.939</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.929</td>
</tr>
<tr>
<td>F-statistic</td>
<td>96.257</td>
</tr>
<tr>
<td>Prob (F-statistic)</td>
<td>0.000</td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>1.097</td>
</tr>
</tbody>
</table>

Authors’ computation (2018)

However, the $R^2$ (R-squared) is valued at 0.939 (94%) which implies that the explanatory variables such as DIV, RTE, TAX and WAGE can account for 96% variation in the asset of the DMBs while the remaining 6% can be explained by the presence of the stochastic variables. The F-statistic is valued at 96.257 units and its p-value is 0.000. Meanwhile, the test for autocorrelation through the use of the Durbin Watson statistic reveal that autocorrelation is absent in the model. This implies that the model is highly significant as all variables put together can significantly predict the dependent variable and that the findings of the study can be relied upon for proper policy recommendation.

The results from table 3 reveal that the constant parameter is positively valued to the tune of 113556.5 units which implies that if all variables are held constant (that is, at zero level), the dependent variable (asset) will increase by 113556.5 units. Also, DIV was found to be positively related to asset by 15.80147 units with an accompanying p-value of 0.000 which means that a unit increase in DIV will lead to an increase in asset by 15.801 units and that DIV has a significant effect on asset. Similarly, RTE was found to be positively related to asset to the tune of 9.425 units which denotes that a unit increase in retained earnings will increase asset of the DMBs by 9.425 units. Meanwhile, it is also revealed that retained earnings have a significant effect on firm asset with the accompanying p-value of 0.000. Also, tax has a positive relationship with asset to the tune of 20.031 units. Tax has a significant effect on firm asset with a p-value of 0.000. Yet, the test for autocorrelation through the use of the Durbin Watson statistic reveal that autocorrelation is absent in the model. Also, the probability value of the F-Statistics is significant at less than 0.05. This implies that the model is highly significant as all
variables put together can significantly predict the dependent variable and that the findings of the study can be relied upon for proper policy recommendations.

**Table 3. Panel Random Effect**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGE</td>
<td>36.467</td>
<td>3.504</td>
<td>10.406</td>
<td>0.000</td>
</tr>
<tr>
<td>TAX</td>
<td>20.031</td>
<td>9.109</td>
<td>2.199</td>
<td>0.031</td>
</tr>
<tr>
<td>DIV</td>
<td>15.801</td>
<td>3.359</td>
<td>4.704</td>
<td>0.000</td>
</tr>
<tr>
<td>RTE</td>
<td>9.425</td>
<td>1.945</td>
<td>4.845</td>
<td>0.000</td>
</tr>
<tr>
<td>C</td>
<td>113556.500</td>
<td>92033.230</td>
<td>1.234</td>
<td>0.221</td>
</tr>
</tbody>
</table>

Random Effects (Cross)

- WEMA: -86581.02
- ZENITH: -241818.60
- ACCESS: 196846.20
- DIAMOND: 138375.50
- STANBIC: -145188.90
- GTB: -16735.49
- UBA: 177007.30
- ECOBANK: -21905.04
- R-Squared: 0.865
- Adjusted R-squared: 0.858
- F-statistic: 120.456
- Prob (F-statistic): 0.000
- Durbin-Watson stat: 0.983

*Authors’ computation (2018)*

The result from table 4 shows that the chi-square is valued at 4.104 units and its p-value is 0.392. This implies that the null hypothesis advocating the random effect is appropriate. Therefore, given the result of the Hausman test, it can be concluded that the most efficient estimator between fixed effect estimator and random effect estimator employed in an attempt to analyse the relationship between value added reporting and bank performance in Nigeria is the random effect estimation.

**Table 4. Hausman Test**

<table>
<thead>
<tr>
<th>Correlated Random Effects - Hausman Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Summary</td>
</tr>
<tr>
<td>Cross-section random</td>
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</table>

*Authors’ computation (2018)*

Taking into cognizance the second model for the study, table 5 presents panel fixed effect using equity as the dependent variable while DIV, RTE, TAX and WAGE are employed as the independent variables. The result reveals the constant parameter is positively significant to the tune of 647924.45, that when all variables are held constant (at zero level), equity will increase by 647924.45 units. Also, DIV, RTE, TAX and WAGE all exert positive effect on equity to the tune of 2.703, 1.935, 3.741 and 2.838 units respectively. Congruently, all the variables DIV, RTE, TAX and WAGE exert a significant influence on equity with their p-value less than 0.05. The explanation flows from the behaviour of the four variables. The higher the dividends paid to shareholders, the higher the market value of the shares of the bank. Retained earnings exerts the same influence because it provides funds for reinvestment, thus, raising the value of the bank’s
shares. Banks that pay higher wages attract the best brains and hands in the industry, thereby boosting financial performance.

<table>
<thead>
<tr>
<th>Table 5. Panel Fixed Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable: EQUITY</td>
</tr>
<tr>
<td>WAGE</td>
</tr>
<tr>
<td>TAX</td>
</tr>
<tr>
<td>DIV</td>
</tr>
<tr>
<td>RTE</td>
</tr>
<tr>
<td>C</td>
</tr>
</tbody>
</table>

Fixed Effects (Cross)
- WEMA: -66947.07
- ZENITH: 37433.82
- ACCESS: 40654.77
- DIAMOND: 8804.12
- STANBIC: -24166.67
- GTB: 1300.46
- UBA: 22594.57
- ECOBANK: -19674.01

R-Squared: 0.936
Adjusted R-squared: 0.926
F-statistic: 90.883
Prob (F-statistic): 0.000
Durbin-Watson stat: 0.961

Moreover, a proper look at the table reveals that the cross sectional variability of the firms shows that the fixed effect of value added reporting on the equity of the firms varies which means that value added reporting has different effects on the banks assuming time is invariant. At the same time, the R² (R-square) reveals that the independent variables can account for 93.6 percent variation in equity, while the remaining 6.4 percent can be explained by other factors outside the model such as the white noise or error term. The F-statistic with its probability value less than 0.05 also reveals that all the independent variables put together can influence the dependent variable. Meanwhile, the test for auto correlation as carried out through the Durbin Watson statistic reveal that the presence of auto correlation is inconclusive in the study. As a result, the findings of the study can be relied upon for proper policy recommendations.

The panel random effect reveals that the constant parameter is positively valued at 53736.89 units which implies that when all variables are held constant (that is, at zero level), the dependent variable will increase by 53736.89 units. Also, all the explanatory variables (DIV, RTE, TAX and WAGE) are found to exert significant effect on equity to the tune of 2.971, 1.894, 4.086 and 3.186 units respectively. However, the test for the significance of the independent variables reveals that DIV, RTE, TAX and WAGE exert significant effect on equity with their probability values less than 0.05.
Table 6. Panel Random Effect

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGE</td>
<td>3.186</td>
<td>0.587</td>
<td>5.429</td>
<td>0.000</td>
</tr>
<tr>
<td>TAX</td>
<td>4.086</td>
<td>1.474</td>
<td>2.773</td>
<td>0.007</td>
</tr>
<tr>
<td>DIV</td>
<td>2.971</td>
<td>0.565</td>
<td>5.254</td>
<td>0.000</td>
</tr>
<tr>
<td>RTE</td>
<td>1.894</td>
<td>0.316</td>
<td>5.996</td>
<td>0.000</td>
</tr>
<tr>
<td>C</td>
<td>53736.890</td>
<td>16429.920</td>
<td>3.271</td>
<td>0.002</td>
</tr>
</tbody>
</table>

Random Effects (Cross)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEMA</td>
<td>-47977.51</td>
</tr>
<tr>
<td>ZENITH</td>
<td>13274.61</td>
</tr>
<tr>
<td>ACCESS</td>
<td>32168.09</td>
</tr>
<tr>
<td>DIAMOND</td>
<td>10195.07</td>
</tr>
<tr>
<td>STANBIC</td>
<td>-12209.68</td>
</tr>
<tr>
<td>GTB</td>
<td>3019.43</td>
</tr>
<tr>
<td>UBA</td>
<td>16991.74</td>
</tr>
<tr>
<td>ECOBANK</td>
<td>-15461.74</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.835</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.827</td>
</tr>
<tr>
<td>F-statistic</td>
<td>95.163</td>
</tr>
<tr>
<td>Prob (F-statistic)</td>
<td>0.000</td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>0.924</td>
</tr>
</tbody>
</table>

Authors’ computation (2018)

Meanwhile, the coefficient of the $R^2$ (R-square) valued at 83.5 percent connotes that the independent variables can explain up to 83.5 percent variations in the behaviour of the dependent variable (equity) while the remaining 16.5 percent can be accounted for by the presence of the error term. Equally, the F-statistic through its probability value reveals that all the variables put together can influence the dependent variable. Also, the test for auto correlation reveals that the presence of autocorrelation is inconclusive in the study. Hence, the findings thereof can be relied upon for proper policy recommendations.

The result from table 6 shows that the chi-square is valued at 3.656 units and its p-value is 0.455 meaning that the null hypothesis of random effect is accepted. Therefore, given the result of Hausman test, it can be inferred that the most efficient estimator between fixed effect estimator and random effect estimator is as presented in Table 5. This is employed in an attempt to analyse the relationship between value added reporting and performance reporting among DMBs in Nigeria for the second model in this study. Hence, the most efficient estimator is the fixed effect estimation.

Table 7. Hausman Test

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>3.656</td>
<td>4</td>
<td>0.455</td>
</tr>
</tbody>
</table>

Authors’ computation (2018)
5. Conclusion and Recommendations

The study has examined the effect of value added reporting on the performance of eight DMBs in Nigeria between 2008 and 2017. The study which adopted two models for analysis used bank asset and equity as dependent variables while dividend paid to lenders, retained earnings, tax paid to government and wages paid to employees were used as independent variables. The study which employed the panel regression analytical technique revealed that all the SVA indices exert positive influence on the two SFP indices (asset and equity) of the DMBs. Moreover, it was also discovered that all the independent variables exert significant effect on performance in the two models. The significant positive relationship between the SVA indices and the SFP indices (equity and assets) reveals that the SVA functions in consonance with the SFP. It is therefore recommended that regulators should analyse and review the SVA in assessing the financial soundness of banks.

The decision on the distribution of value added to each stakeholder is a major decision in any firm, albeit any bank. This shows that valuable decisions could be taken based on information contained in the SVA. It is therefore recommended that the SVA should be moved from the later end of the financial statements and upgraded to appear between the SCI and the SFP. This will accord it the importance it exerts and make it visible to regulators, investors, analysts and those charged with governance of firms. It is also recommended that decisions on wage increase, increase in corporate tax rate, and dividends pay-out should be taken only after a proper analysis of information presented in the SVA.

As a follow-up to this study, it is suggested that further research could focus on running regression analysis on the SCI indices to show how they influence assets and equity in order to determine whether SVA or SCI is a more valuable information carrier for the investor, regulator, management and the employee. Though EPS is widely used as the most popular method of qualifying a firm’s profitability, it is equally important to note that earnings can be susceptible to manipulations, and changes in accounting policies and standards.

Using SVA, employees and shareholders can negotiate for better treatment; government can analyse tax paid in relation to what goes to other stakeholders; and providers of long term credit can assess when to withdraw or invest more. It is expected that operators, analysts, and regulators would use this yardstick for rating performance in order to build a stronger banking sector.
References


The relevance of value added reporting in assessing the financial soundness of deposit money banks in Nigeria


