The effect of merger and acquisition on the performance of banks in Nigeria

AJAYI Lawrence Boboye* • OBISESAN Oluwaseun Grace

Department of Banking and Finance, Faculty of Management Sciences, Ekiti State University, Ado-Ekiti, Nigeria.

*Corresponding author. E-mail: boblaw2006@yahoo.com.

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Abstract. The study evaluated the effects of mergers and acquisitions on the performance of selected Deposit Money Banks in Nigeria. The profit after tax was used as the explained variable that served as a function of shareholder’s fund, total asset, loan and advances, and total deposit that are explanatory variables. The research made used of secondary data, obtained from the bank’s annual reports and statements of accounts spans from 2001 to 2014, the study employed Ordinary Least Square. Johansen Cointegration Techniques has shown from the unit root test that most of the time series are non-stationary series that only become stationary after first differencing, and Error Correction Model shows that there truly exists long-run equilibrium relationship among the variables. This is evidenced by the coefficient of one period lag which is statistically significant and correctly signed (-0.804397) with a probability value of 0.0048. The result showed that merger and acquisition has no significant impact on banks’ performance of the selected banks in Nigeria. Based on the findings, the study recommended among others, that Central Bank of Nigeria should ensure that only strong banks can merge so as to form mega bank in order to achieve the synergy that the bank consolidation promises. The study also recommended that Management of Nigerian banks should be discouraged from unethical banking practices and regulatory authorities should use their searchlights on the Nigerian banking industry in order to curb financial crimes being perpetuated in Nigerian banks.

Keywords: Merger, acquisition, deposit money banks, central bank, Nigeria.

INTRODUCTION

The economic growth and development of an economy depends to a large extent on its financial system. The financial system consists mainly of bank and other non-banking financial institutions. The banks occupy strategic position in every economy and are able to influence its growth and development through the creation of money for utilization within the economy. As financial intermediaries, banks assist in channeling funds from surplus economic units to deficit areas to facilitate business transactions and economic development generally. Since these funds are owned by third parties, prudence demands that such funds should be efficiently managed to sustain the confidence of depositors in the banking system, ensure the continuous soundness of the system itself and thereby minimizing the risk of bank failures (Oluranti, 1991).

Since 1987 the financial system has been partly liberalised with the objectives of enhancing the efficiency of resource allocation and strengthening competition. Liberalisation reform has entailed the removal of some of the allocative controls and the easing of entry restrictions into banking business. This has undoubtedly had significant effects on banking markets. The number of banks has expanded rapidly and this increased competition in some sections of the banking industry. Despite this, financial liberalisation may have had only a limited impact in terms of improving the efficiency of resource allocation in banking markets for several reasons.
The deregulation of controls has been partial and inconsistent, high rates of inflation have impeded the attainment of positive real interest rates, large government deficits have absorbed a substantial share of bank finance, and mismanagement and fraud in public and private sector banks has led to extensive waste of resources (Adam, 2003).

Soludo (2004) pronounced an increment in the minimum capital base for Nigeria banks. This was the part of the effort to resolve the observed capitalization, poor corporate governance, illiquidity in the Nigerian Banking Industry. The objectives being to have a strong bank that investors could rely upon, and mega banks that could compete actively in the global financial system. The options available for the banks were offered for subscription through the capital market and consolidation through mergers and acquisition. The merger and acquisition exercise resulted in the emergence of 25 banking organization out of the 87 banks and revocation of 11 licenses. Few years after the exercise, precisely in 2008, some of the so called strong reliable and mega banks began to experience crisis. The crisis saw three of the banks acquired and other three nationalized. To the latest, the Central Bank of Nigeria on 14th May, 2015 authorized only 21 banks to transact business in Nigeria. The importance of Banking Industry in the growth and development of a nation cannot be overemphasized. A well functioned banking sector is sin quo non to the growth and development of a nation.

Banks are specialized in the mobilization of idle funds from surplus unit for channeling into deficit unit for productive investment without which development cannot take place (Adeusi 2005). In Nigeria like other developing economies, the monetary authority has a responsibility to engender in public confidence in the banking system. Therefore the sufficiency of owner’s capital is a very important factor in ensuring stability in the system. Presently, there are criticism from various angles that belief by the monetary authorities that recapitalization would solve banking problems was a serious miscalculation. There are several studies on the impact of merger and acquisition on banks in Nigeria such as: Onikoyi (2012), Onaolapo and Ajala (2012), Olagunju and Obadami (2012), Ikpefan and Kazeem (2013), Oluwaremi (2014), Roseline (2014) and Anderibom and Obute (2015). Hence a study carried at investigating the effect of merger and acquisition on bank performance could not have come at a better time. It becomes imperative to conduct a research that seeks to provide answers to questions such as: what effect has merger and acquisition on the performance of Nigerian banks?

LITERATURE REVIEW

Mergers entail the coming together of two or more firms to become one big firm while acquisition is the takeover or purchase of a small firm by a bigger firm, which are both pursuing similar motives (Gaughan, 2007; Amedu, 2004; Bello, 2004; Kathy, 2005). Accordingly, Soludo (2004) opines that mergers and acquisitions are aimed at achieving cost efficiency through economics of scale, and to diversify and expand on the range of business activities for improved performance.

Scholars have empirically examined whether mergers and acquisitions could provide answers to bank problems. The studies of Carletti et al. (2002) and Szapary (2001) provided the foundation for a research on the linkage between bank mergers and acquisitions and profitability. Evidence provided by De-Nicolo (2003) and Caprion (1999) suggested that mergers and acquisitions in the financial system could impact positively on the efficiency of most banks. Surprisingly, the available empirical evidence suggests that mergers and acquisitions operations in the United States banking industry have not had a positive influence on performance in terms of efficiency (DeLong and DeYoung, 2007).

Olagunju and Obadami (2012) in their study of 10 DMBs found out that merger and acquisition have improved. They arrived that there exist a significant relationship between pre and post merger acquisition earnings per shares, and concludes that the overall performance of banks significantly and also contribute immensely to the growth of the real sector for sustainable development. Onaolapo and Ajala (2012) in their study of 7 DMBs found that post merger and acquisition period was more finally improved than the pre merger and acquisition period. Ikpefan and Kazeem (2013) discovered that merger created synergy as indicated by the statistically significant increasing post-merger financial performance. He studied ten banks in Nigeria between 2000 and 2009. However, banks should not jump at merging opportunity that offers itself. Anderibom and Obute (2015) discovered that merger and acquisition had positive significant effects on the performance of Deposit Money Banks in Nigeria.

Viverita (2008) investigated the effects of mergers on banks’ performance in Indonesia during 1997 to 2006. The study employs the traditional financial ratios and non-parametric Data Envelopment Analysis (DEA) approach to investigate any efficiency gain both in the pre- and post-merger periods in order to determine efficiency gain of banks’ mergers. The evidence shows that mergers create synergy and significantly increase the post-merger financial performance. Mantravadi and Reddy (2008) evaluated the effects of bank consolidation on performance for a period of five years from the Argentine experience. The findings reveal that banks’ returns increase with consolidation and insolvency risk is reduced; and concludes that bank consolidation has a positive and significant effect on banks performance.

Okpanachi (2010) examined the comparative analysis of the impact of merger and acquisition on financial
efficiency of banks in Nigeria where he uses comparative analysis and found out how financial performance leading to improved financial efficiency is enhanced. The test depicted an increase in their combined means for gross earnings and net asset while profit after tax records a decline. Devarajapp (2012), revealed merger in Indian banking: A bank Ltd and Centurion bank of Punjab Ltd. Using independent t-test to analyze her result it showed that after the merger, the financial performance of the banks have increased and that there have been an improvement on the return on equity, debt and gross profit margin after the merger.

Reda (2013) investigated the effect of merger and acquisition on bank efficiency: Evidence from bank consolidation in Egypt using data development analysis and financial ratio analysis. The study revealed that improvement in risk measured and increased capital; except on profitability liquidity. Sufian (2004) reviewed the efficiency effects of bank mergers and acquisition in a developing economy: Evidence from Malaysia where he uses non-parametric approach data envelopment analysis and found out that Malaysian banks exhibit a commendable overall efficiency level of 95.9% with minimal input waste of 4.1%. Azeem-Ahmad (2011) examined merger and acquisition in the Indian banking sector in post liberalization regime using t-test, and ratio analysis, where $x_1$ represent the mean of combined pre merger ratio, $x_2$ is the mean of acquiring bank post merger, $n_1$ and $n_2$ are the number of observation of 1st and 2nd series and found out that after merger, the bank performance improves in relation to the return on equity with t-test and the difference is statistically significant.

Badreldin and Kalhofer (2009) examined the effect of merger and acquisition on banks performance in Egypt that has undergone mergers and acquisitions during 2002 to 2007, using return on equity. The findings conclude that merger and acquisition have no clear effect on the profitability of banks in the Egyptian banking sector. The findings were at variance with Mantravadi and Reddy (2008).

The empirical reviews so far may be summed up that merger and acquisition has mixed outcomes in developing economics. Findings in the Nigerian situation have also given mixed signals of post-merger and acquisition financial performance of banks. Enyi (2007) examined the synergistic harvest of banks consolidation in Nigeria and compares the pre-merger and post-merger financial statements of four consolidated banks. The findings reveal that all the four merger groups studied produced, in addition to operational and relational synergy, financial gains far more than the “2 + 2 = 5” synergistic effects. This study was in the very early years of the implementation with a very short time horizon for a meaningful assessment. Analyzing the impact of merger and acquisition on financial efficiency of banks in Nigeria, Okpanachi (2010) utilized gross earnings, profit after tax and net assets as indices of financial efficiency. The study uses only three banks and the t-test statistics was used to analyze the data obtained from published annual reports and accounts of the banks. The banks were found to be more financially efficient in post- merger and acquisition than the pre-merger and acquisition period. The sample size of these studies was rather too small to vouch for the validity and reliably of the findings in view of the statistical technique employed. Other studies suggest poor post-M&A financial performance of consolidated banks in Nigeria. For example, employing the explorative research method, Ebimobowei and Sophia (2011) revealed that the consolidation activities in Nigeria did not meet the desired objectives of liquidity, capital adequacy and corporate governance which have resulted to more troubled banks after the consolidation. It is important to note that the study employed theoretical (speculative) rather than empirical methodology.

Kithitu et al. (2012) examined the role of merger and acquisition on the performance of commercial banks in Kenya with accounting ratio analysis and discovered that Kenya commercial banks and Kenya commercial finance company had positive Return on Asset (ROA) before the merger. Okafor (2012) employed industry-wide data obtained from Central Bank of Asset (ROA) reports and finds that even though consolidation has improved the performance of the Nigerian banking industry in terms of asset size, deposit base and capital adequacy, the profit efficiency and asset utilization efficiencies of the banks have deteriorated since the conclusion of the consolidation programme. On the contrary, Owolabi and Ogunlalu (2013) discovered that it is not all the time that consolidation transforms into good financial performance of bank and it is not only capital that makes for good performance of banks. Odetayo et al. (2013), DeLong and DeYoung (2007) and Amel et al. (2004) also found that mergers and acquisitions have not had a positive influence on banks performance in term of efficiency.

While Beitel et al. (2003) found no gain effect due to mergers and acquisitions in banking industry. Furthermore, the study posits that consolidation of banks may not necessarily be a sufficient tool for achieving financial stability for sustainable development, arguing that there is need to develop a new frame work for achieving financial sector stability rather than relying on the merger and acquisition consolidation policy. It also observes that banking consolidation in Nigeria, as in many other countries, has not proved to be reliable panacea for bank failures and crisis. This finding was, however, based on industry-wide data which included banks that employ merger and acquisition consolidation strategy.

MATERIALS AND METHODS

The study and data

This study employed an ex-post facto research design since researcher cannot manipulate the independent
variables either because they have been manipulated or cannot be manipulated. In order to realize the objective of the study, the relevant variables include profit after tax, shareholder fund, total asset, loan and advances and total deposit. The first being the dependent variables while others are explanatory variables. The study covers the five (5) Deposit Money Banks in Nigeria namely: Access Bank Plc, First bank Plc, Eco Bank Plc, United bank for Africa and Zenith Bank Plc. The data used for analysis are entirely secondary data covering the period between 2001 and 2014. They are obtained from the Annual Financial Statement of Account of Various Banks.

Model specification

The model employed in this study is built based on the modification of the models in Ikpefan and Kazeem (2013), in their study the model was specified as:

\[ \text{BPERF} = f (\text{SIZE}, \text{DGR}, \text{LTDR}, \text{DMERG}) \]  

(1)

The model was modified to shoot the purpose of the study. Therefore, it was specified as:

\[ \text{PAT} = f (\text{SHF}, \text{TA}, \text{LA}, \text{TD}) \]  

(2)

Presenting the model 1 in equation form:

\[ \text{PAT} = \beta_0 + \beta_1 \text{SHF} + \beta_2 \text{TA} + \beta_3 \text{LA} + \beta_4 \text{TD} + \text{U} \]  

(3)

Where:

\[ \text{PAT} = \text{Profit after Tax} \]
\[ \text{SHF} = \text{Shareholder Fund} \]
\[ \text{TA} = \text{Total Asset} \]
\[ \text{LA} = \text{Loan and Advances} \]
\[ \text{TD} = \text{Total Deposit} \]
\[ \text{U} = \text{stochastic error term} \]
\[ \beta_0 - \beta_4 = \text{coefficients of independent variables} \]

From Equation 2, the model can be specified in a time series form as:

\[ \Delta \text{PAT} = \beta_0 + \beta_1 \Delta \text{SHF}_t + \beta_2 \Delta \text{TA}_t + \beta_3 \Delta \text{LA}_t + \ldots + \beta_4 \Delta \text{TD}_t + \text{U} \]  

(4)

Where: \( t \) = time series

Augmented Dickey-Fuller test

ADF unit root test developed by Dickey and Fuller (1979) is used to determine the time series characteristics and order of integration of the variables. The model is specified thus:

\[ \Delta \text{Y}_t = \delta_0 + \lambda \text{Y}_{t-1} + \beta_i \Delta \text{Y}_{t-1} + \text{t} \]  

(for intercept)  

(5)

\[ \Delta \text{Y}_t = \delta_0 + \lambda \text{Y}_{t-1} + \delta \text{t} + \beta_i \Delta \text{Y}_{t-1} + \text{t} \]  

(for trend)  

(6)

Johansen co-integration test

It is necessary to determine whether the variables in equation (3) co-integrate. The two test statistics proposed by Johansen are:

\[ \text{LR trace} (r) = -T \ln (1-\lambda) \text{the trace statistics and} \]
\[ \text{LR max} (r, r+1) = -T \ln (1-\lambda r^1) \text{LR trace} (r+1) \text{the maximum eigen value statistic} \]

Error correction mechanism

The error correction mechanism is employed to investigate the short-run dynamics in the relationship between profit after tax, shareholder fund, total asset, loan and advances and total deposit.

From Equation 3, the error correction model (ECM) can be specified as:

\[ \Delta \text{PAT} = \beta_0 + \beta_1 \Delta \text{SHF}_t + \beta_0 + \beta_2 \Delta \text{TA}_t + \beta_0 + \beta_3 \Delta \text{LA}_t + \beta_0 + \beta_4 \Delta \text{TD}_t + \beta_0 + \text{EMC}_t + \beta_0 + \text{U} \]  

(7)

Where:

\[ \text{EMC}_t = \text{Error correction term} \]
\[ \text{t-1} \text{shows the variables were lagged by one period} \]
\[ \Sigma = \text{white noise residual} \]

In any case, a positive relationship is expected from between profit after tax and various explanatory variables. This can be summarized thus;

\[ \beta_1 > 0, \beta_2 > 0, \beta_3 > 0 \text{ and } \beta_4 > 0 \]

RESULTS AND DISCUSSION

Descriptive analysis

Table 1 shows the descriptive statistics of the data series employed in the study. Profit after tax (PAT) has a mean of 5.956322 and varies from a minimum of 1.526219 to a maximum of 8.981382 and a standard deviation of 1.654454 with a probability value of 0.148483. Share holder fund (SHF) has a mean of 6.856673 and varies from a minimum of 3.936463 to a maximum of 8.696113 and a standard deviation of 1.372714 with a probability value of 0.063739. Also Total asset (TA) has a mean of 7.266965 and varies from the minimum of 5.350262 to a maximum of 9.494082 with a standard deviation of 1.263089 and probability of 0.075710. Loan and advances (LA) has a mean of 7.440048 and varies from the minimum of 1.748545 to a maximum of 9.454430 with a standard deviation of 1.407794 and probability value of 0.00023. Furthermore, Total deposit (TD) has a mean of 7.353545 and varies from minimum of 4.460221 to a maximum of 9.204470 with a standard deviation of 1.346353 and probability of 0.015190. Consequently, all the variables were negatively skewed.

From Table 2, it can be seen that constant (C) has an insignificant negative relationship with PAT. That is
Table 1. Descriptive result.

<table>
<thead>
<tr>
<th></th>
<th>PAT</th>
<th>SHF</th>
<th>TA</th>
<th>LA</th>
<th>TD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5.956322</td>
<td>6.856673</td>
<td>7.776084</td>
<td>7.266965</td>
<td>7.353545</td>
</tr>
<tr>
<td>Median</td>
<td>6.203177</td>
<td>7.171772</td>
<td>8.018037</td>
<td>7.520355</td>
<td>7.798746</td>
</tr>
<tr>
<td>Minimum</td>
<td>1.526219</td>
<td>3.936463</td>
<td>5.350262</td>
<td>1.748545</td>
<td>4.460221</td>
</tr>
<tr>
<td>Std. Dev</td>
<td>1.654454</td>
<td>1.372714</td>
<td>1.263089</td>
<td>1.407794</td>
<td>1.346353</td>
</tr>
<tr>
<td>Skewness</td>
<td>-0.565831</td>
<td>-0.462617</td>
<td>-0.370715</td>
<td>-1.017382</td>
<td>-0.820721</td>
</tr>
<tr>
<td>Probability</td>
<td>0.148483</td>
<td>0.063739</td>
<td>0.075710</td>
<td>0.00023</td>
<td>0.015190</td>
</tr>
<tr>
<td>Observation</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
</tr>
</tbody>
</table>

Source: E-view 6 package.

Table 2. Regression result.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. error</th>
<th>t-statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-1.584041</td>
<td>1.265261</td>
<td>1.251948</td>
<td>0.2152</td>
</tr>
<tr>
<td>SHF</td>
<td>-0.514459</td>
<td>0.234083</td>
<td>1.749366</td>
<td>0.0851</td>
</tr>
<tr>
<td>TA</td>
<td>1.102106</td>
<td>0.413463</td>
<td>2.659759</td>
<td>0.0099</td>
</tr>
<tr>
<td>LA</td>
<td>0.053415</td>
<td>0.359145</td>
<td>0.148728</td>
<td>0.8822</td>
</tr>
<tr>
<td>TD</td>
<td>0.280964</td>
<td>0.143129</td>
<td>1.963007</td>
<td>0.0541</td>
</tr>
</tbody>
</table>

R-squared 0.385823 Adjusted R-squared 0.346828; F-statistic 9.894092; Prob (F-statistic) 0.000003; Durbin-Watson stat (DW) 0.993241. Source: E-view 6 package.

Table 3. ADF unit root test results.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Adf test statistics</th>
<th>Critical value</th>
<th>Order of integration</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>lnPAT</td>
<td>-6.163937</td>
<td>-2.906210</td>
<td>I(1)**</td>
<td>Stationary</td>
</tr>
<tr>
<td>lnSHF</td>
<td>-8.228516</td>
<td>-2.906210</td>
<td>I(1)**</td>
<td>Stationary</td>
</tr>
<tr>
<td>lnTA</td>
<td>-8.026091</td>
<td>-2.906210</td>
<td>I(1)**</td>
<td>Stationary</td>
</tr>
<tr>
<td>lnLA</td>
<td>-6.163937</td>
<td>-2.906210</td>
<td>I(1)**</td>
<td>Stationary</td>
</tr>
<tr>
<td>lnTD</td>
<td>-3.872996</td>
<td>-2.906210</td>
<td>I(1)**</td>
<td>Stationary</td>
</tr>
</tbody>
</table>

Note: *(**)- Significant at 5%(10%) percent level. Source: E-view 6 package.

Putting Shareholder fund (SHF), Total asset (TA), Loan and advances (LA) and Total deposit (TD) aside, and a unit rise in other factors other than SHF, TA, LA and TD will bring about 1.584041 shortfalls in PAT. Shareholder fund is negative and insignificant with PAT. Total asset and Total deposit have positive and significant relationship with PAT. Furthermore, Loan and advances posits a positive and insignificant relationship with PAT in the short-run. In other words, if all other variables are held constant, a unit increase in (SHF), (TA, (LA), and (TD) will bring about -0.514459, 1.102106, 0.053415, and 0.280964 units in PAT respectively. It must be noted however that all the TA and TD variables are statistically significant at 5% level of significant in determining PAT while SHF, LA and the Constant parameter are insignificant considering the less than 5% probability values. All the explanatory variables explain 34.68% of changes in and the model is statistically fit considering the Probability (F-statistic) of 0.000003 and the Durbin-Watson test is disclosed by DW statistic (0.993241).

Unit root test

Table 3 shows the time series properties of the variables using the ADF Unit Root Test Statistics. The table reveals that PAT, SHF, TA, LA and TD are stationary at first difference 5% level of significance.

Johansen cointegration test

It has been shown from the unit root test above that most of the time series are non-stationary series that only become stationary after first differencing. Confirmation of the presence of non-stationary series suggests bogus relationship in the short-run because of the stochastic possessed by these non-stationary series. However, they
cannot generate an equilibrium relationship in the short-run; they can only do so in the long-run if they co-integrate. Therefore, Johansen Co-integration test is carried out to test for the presence of co-integrating equation of the multivariate series in the long-run. In the Johansen Co-integration test, the Trace Statistics and Max-Eigen Statistics are compared with 5 and 1% critical values in order to determine the number of co-integrating vectors in the model.

Tables 4 and 5 show the unrestricted co-integration rank test in which the former table shows the Trace Statistics test while the latter shows the Max-Eigen Statistics test. Trace test and Max-Eigen value test each indicates 1 co-integrating equation at 5% level of significance. Moreover, Table 6 shows the long-run co-integration equation among the variables in the model. From the table, it can be seen that Shareholder fund (SHF), and Total asset (TA) have positive effect on Profit after tax while loan and advances (LA) and total deposit (TD) are negatively related with Profit after tax (PAT) in the long-run. This result does not conform to the economic a priori expectation of the study. From the table above a unit increase in the SHF and TA will bring about 14.57 and 4.97 unit increase in the Profit after tax respectively while Loan and advances (LA) and Total deposit (TD) will bring about a decrease of about 25.29 and 4.40 units in the Profit after tax (PAT) respectively in the long run, keeping all other factors constant.

**Error correction mechanism**

The over-parameterized error correction mechanism (ECM) was carried out in order to identify the main dynamics of the model and ensure that the model have not been constrained by a too short lag length. The over-parameterized ECM presented in Table 7 shows that there truly exists long-run equilibrium relationship among the variables. This is evidenced by the coefficient of one period lag of ECM which is statistically significant and correctly signed (ECM -0.804397) with a probability value of 0.0048. The TD and ECM are statistically significant at 0.05% and level of significance, hence the result shows that about 80.40% of the short-run inconsistencies are being corrected and incorporated into the long-run equilibrium relationship annually. In the over-parameterized ECM result, the specific effect of each of the explanatory variables on the dependent variable is

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**Table 4. Trace statistics result.**

<table>
<thead>
<tr>
<th>Hypothesized no. of CE(s)</th>
<th>Eigenvalue</th>
<th>Trace statistic</th>
<th>5% critical</th>
<th>Value Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.729049</td>
<td>122.4510</td>
<td>69.81889</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.356273</td>
<td>45.40781</td>
<td>47.85613</td>
<td>0.0834</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.194522</td>
<td>19.41943</td>
<td>29.79707</td>
<td>0.4631</td>
</tr>
<tr>
<td>At most 3</td>
<td>0.097143</td>
<td>6.656616</td>
<td>15.49471</td>
<td>0.6179</td>
</tr>
<tr>
<td>At most 4</td>
<td>0.010577</td>
<td>0.627351</td>
<td>3.841466</td>
<td>0.4283</td>
</tr>
</tbody>
</table>

Source: E-view 6 package. Trace test indicates 1 cointegrating eqn (s) at the 0.05 level. * denotes rejection of the hypothesis at the 0.05 level, **MacKinnon-Haug-Michelis (1999) p-values.

**Table 5. Max-Eigen value statistics result.**

<table>
<thead>
<tr>
<th>Hypothesized no. of CE(s)</th>
<th>Eigenvalue</th>
<th>Trace statistic</th>
<th>5% critical</th>
<th>Value prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>77.04316</td>
<td>122.4510</td>
<td>69.81889</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1</td>
<td>25.98839</td>
<td>45.40781</td>
<td>47.85613</td>
<td>0.0834</td>
</tr>
<tr>
<td>At most 2</td>
<td>12.76281</td>
<td>19.41943</td>
<td>29.79707</td>
<td>0.4631</td>
</tr>
<tr>
<td>At most 3</td>
<td>6.029265</td>
<td>6.656616</td>
<td>15.49471</td>
<td>0.6179</td>
</tr>
<tr>
<td>At most 4</td>
<td>0.627351</td>
<td>0.627351</td>
<td>3.841466</td>
<td>0.4283</td>
</tr>
</tbody>
</table>

Source: E-view 6 package. Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level. * denotes rejection of the hypothesis at the 0.05 level, **MacKinnon-Haug-Michelis (1999) p-values.

**Table 6. Normalized co-integrating coefficients.**

| 1 Cointegrating Equation(s): Log likelihood -216.2784 |
|---------------------------------|-----------------|-----------------|-----------------|
| PAT                             | SHF             | TA              | LA              | TD              |
| 1.000000                        | 1.457211 (0.26218) | 0.497530 (0.60047) | -2.529743 (0.58100) | -0.440829 (0.09022) |

Source: E-view 6 package.
shown in the coefficient column of the ECM result as presented in Table 7. In this table, lagged PAT, SHF, SHF lagged by one period, and lagged TA by one period have negative effect on the dependent variable while PAT, TA, LA, lagged by one period, TD and TD lagged by one period have positive relationship. The coefficient of multiple determinations (R2) is 0.598124. This implies that 59.81% of the systematic variations in the dependent variable can be explained by the explanatory variables. Adjusted R2 is 52.18% implies the existence of room for more variables capable of explaining changes in profit after tax. Moreover, the probability value of the F-Statistic shows the overall goodness of fit of the model.

CONCLUSION AND RECOMMENDATIONS

This study examined the effect of merger and acquisition on the performance of banks in Nigeria using time series data spanning from 2001 through 2014. The study employed Ordinary least square method and the Johansen Cointegration technique to ascertain the long run effect of some activity variables (Shareholder fund, total asset, loan and advances and total deposit) on bank performance proxy by Profit after tax. The co-integration result reveals that there is a dynamic long-run association between the variables. The over-parameterized error correction model result shows that the variables have short run association which can actually be felt in the long run. However, the result further shows that the short-run inconsistencies have been corrected; giving the correctly signed and statistically significant ECM coefficient of about 80.40%. From the co-integration equation, it is evident that TD has a significant influence on the level of development in Nigerian Banks. On the short run, PAT and SHF variables are negatively insignificant with bank performance, TA and TD have positively significant relationship with bank performance while the LA posit a positive but insignificant relationship with the Profit after tax of selected banks. However, in the long run LA and TD portrayed a negative relationship with the earlier formulated apriori expectation of the study.

Hence, the result showed that merger and acquisition has not significantly impact banks’ performance. The study is in consonant with the works of Owolabi and Ogunlalu, (2013), Odetayo et al. (2013), DeLong and DeYoung (2007), Amel et al. (2004) and Beitel et al. (2003) that merger and acquisitions have no gain effect on the selected banks.

In order to avert negative consequences of the banks consolidation exercise in Nigeria and to realize the benefits derivable from the exercise, the study therefore recommend that:

1. Central Bank of Nigeria should ensure that only strong banks can merge so as to form mega bank in order to achieve the synergy that the bank consolidation promises;
2. Management of Nigerian banks should be discouraged from unethical banking practices, and regulatory authorities should use their searchlights on the Nigerian banking industry in order to curb financial crimes being perpetuated in Nigerian banks.

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