Comparative analysis of the impact of mergers and acquisitions on financial efficiency of banks in Nigeria

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Accepted 20 August, 2010

Mergers and acquisitions in the Nigerian banking sector are reform strategies recently adopted to reposition the banking sector. These were done to achieve improved financial efficiency, forestall operational hardships and expansion bottlenecks. It is against this backdrop that the paper made a comparative analysis of the impact of mergers and acquisitions on financial efficiency of banks in Nigeria. This paper used gross earnings, profit after tax and net assets of the selected banks as indices to determine financial efficiency by comparing the pre-mergers and acquisitions’ indices with the post-mergers and acquisitions’ indices for the period under review. For this paper, three Nigerian banks were selected using convenience and judgmental sample selection methods. Data were collected from the published annual reports and accounts of the selected banks and were subsequently analyzed applying t-test statistics through statistical package for social sciences. It was found that the post-mergers and acquisitions’ period was more financially efficient than the pre-mergers and acquisitions period. However, to increase banks financial efficiency, the study recommend that banks should be more aggressive in their profit drive for improved financial position to reap the benefit of post mergers and acquisitions bid.

Key words: Banks, financial efficiency, mergers and acquisitions.

INTRODUCTION

Banks play a crucial role in propelling the entire economy of any nation, of which there is need to reposition it for efficient financial performance through a reform process geared towards forestalling bank distress. In Nigeria, the reform process of the banking sector is part and parcel of the government strategic agenda aimed at repositioning and integrating the Nigerian banking sector into the African regional and global financial system. To make the Nigerian banking sector sound according to Akpan (2007), the sector has undergone remarkable changes over the years in terms of the number of institutions, structure of ownership, as well as depth and breadth of operations. These changes have been influenced mostly by the challenges posed by deregulation of the financial sector, operations globalization, technological innovations, and implementation of supervisory and prudential requirements that conform to international regulations and standards.

Similarly, a strong and virile economy depends to a very large extent on a robust, stable and reliable financial system including the banking sector. This explains the frequency with which the Nigerian banking sector has witnessed repeated reforms aimed at fine-tuning it to meet the challenges for economic stability and developmental goals which are not only limited to domestic savings mobilization and financial intermediation, but also the elimination of inefficiency to enhance financial efficiency. The financial efficiency parameters are determined and measured by gross earnings, profit after tax and net assets.

Soludo (2004) opined that, the Central Bank of Nigeria (CBN) chose to begin the Nigerian banking sector reforms process with the consolidation and recapitalization policy through mergers and acquisitions. This is done in order to arrest systems decay, restoration of public confidence, building of strong, competent and competitive players in the global arena, ensuring longevity and higher returns to investors. Considering the
inability of most Nigerian banks to perform well due to operational hardship, expansion bottlenecks as a result of heavy fixed and operating costs coupled with volatility between deposits and lending rates, the present banking sector reforms in Nigeria was announced by Professor Chukwuma Soludo, the then CBN governor on July 6th, 2004 with the objective of creating a sound and more secure banking system that depositors can trust through mergers and acquisitions which enhanced operational capital base. These and many more, act as a spring board to achieving improved efficiency.

Ajayi (2005), Garba (2006) and Augustine (2007) stated that, other programmes in the Nigerian banking sector reforms agenda includes; ensuring exchange rate and price stability, managing interest rate for stability and development, macro economic coordination, improvements of the payment system and financial sector diversification to avoid a situation of boom and bust that can result to bank distress. This, Walter and Uche (2005) supported. The current reforms framework anchored on two critical pillars; firstly, to provide effective protection against systemic financial crises in the interest of the depositors; and secondly, to fast track the growth and development of the national economy.

However, for Akpan (2007), recapitalization through mergers and acquisitions is not a new development in the Nigerian banking sector but a chain of similar events that have been on since 1952. For instance, between 1952 and 2005, there have been nine (9) re-capitalization requirement targets that banks were made to achieve. The first was in 1952, and the second in 1964 which both minimum capital base were pegged at thousand brackets. The million bracket capital base was introduced in 1988 when banks were made to capitalize at N10 million while the existing capitalization is N25 billion. According to Rewane (2004) and Sobawale (2004), recapitalization through mergers and acquisitions has however generated a lot of controversies in the Nigerian banking sector. Most of the key players in the sector saw the time frame within which to meet the requirements as unrealizable. For Walter and Uche (2005), the timing of the exercise was also seen as unfavorable given the current economic condition, the prevailing business atmosphere of inflation and diminishing savings and investments.

Nevertheless, it is in record that between 1990 to date, Nigeria witnessed several mergers and acquisitions arrangement. This trend dramatically changed particularly from 1995. In 1997 alone, about 10 mergers and acquisitions bids was recorded, whereas, as at 31st December 2005, the Nigerian banking sector witnessed 25 mergers and acquisitions activities (Okpanachi, 2007). For this, mergers and acquisitions is not a new scheme geared towards business survival but more importantly assist in repositioning business for more efficiency and reliability which it has done to the Nigerian banking sector through strengthening the industry with its position multiplier effects on the economy. The incidence of distressed and technically insolvent banking institutions has been with us for quite some time. Umoh (2004) noted that the unprecedented liquidation of twenty-six (26) Nigerian banks in 1998, in addition to the earlier closure of five (5) banks in 1994/95, did not put an end to the distress syndrome. This, recently manifested when in August 14th, 2009 the CBN declared five Nigerian banks illiquid as a result of inadequate capital ratio due to reckless lending, followed by two others on 2nd October, 2009 which resulted to the immediate sacking of the affected banks’ Managing Directors.

According to Umoh (2004), mergers and acquisitions are expected to address the problem of distress among insolvent banks without an initial resort to liquidation. For the Nigerian banking sector, out of the 89 banks that were in existence before 31st December 2005, it is only 25 banks that met the consolidation requirements through mergers and acquisitions arrangement. Currently, only 24 banks exist in Nigeria due to the merger between Stanbic bank Ltd and IBTC Chattered bank Plc which became effective on 24th September, 2007, at a shareholders’ meeting held on 12th December, 2007 to effect the change of name to Stanbic IBTC bank Plc. Also, as at 1st January 2009, Bank PHB Plc acquired Spring Bank Plc, but each bank is operating differently on the basis of name and identity under BankPHB group over an integration period of less than two years. Again, as at 5th February 2009, the CBN restored the operational licence of Savannah Bank of Nigeria Plc which was closed down on 15th February 2002 as a result of liquidity problem. The new capitalization policy of the Nigerian government on banking sector reform had forced many banks to merge or be acquired which resulted to the formation of Mega banks.

For Muhammed (2005), most Nigerian banks were becoming personalized in ownership and management structure which made the banks incapable to finance large scale and long term projects due to limited liquidity at their disposal. The sector was characterized with import financing rather than encouraging domestic growth in the economy; there was loss of public confidence due to fear of liquidation, customer dissatisfaction on banking services as well as some obnoxious, unprofessional and other sharp practices within the industry. All these caused great distortion in the financial system resulting to financial inefficiency, which made investors not to get constant and high dividends as a result of inefficiency in terms of gross earnings, profit after tax and net assets. In line with the aforementioned, the following null hypotheses were formulated and tested:

\[ H_01: \text{There is no significant difference in the pre and post mergers and acquisitions periods of banks in terms of gross earnings.} \]

\[ H_02: \text{There is no significant difference in the pre and post mergers and acquisitions periods of banks in terms of gross earnings.} \]
profits after tax.

H$_{03}$: There is no significant difference in the pre and post mergers and acquisitions periods of banks in terms of net asset.

Consequently, it is against this background that the paper attempts to make a comparative analysis of the impact of mergers and acquisitions on financial efficiency of banks in Nigeria.

**Literature review and theoretical framework**

Mergers and acquisitions are a global business terms used in achieving business growth and survival. Merger entails 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 big firm; which are both pursuing similar motives (Gaughan, 1999; Amedu, 2004; Bello, 2004; Katy, 2005). Accordingly, Soludo (2004) opined that mergers and acquisitions are aimed at achieving cost efficiency through economies of scale, and to diversity and expand on the range of business activities for improved performance.

Numerous studies have empirically examined whether mergers and acquisitions are solutions to bank problems. The studies of Cabral et al. (2002), Carletti et al. (2002) and Szapary (2001) provided the foundation for a research on the linkage between banks mergers and acquisitions and profitability. Evidence as provided by Calomiris and Karenski (1996), 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 term of efficiency (DeLong and Deyoung, 2007; Amel et al., 2004; Berger et al., 1999). Overall of these studies provide mixed evidence and many fail to show a clear relationship between mergers and acquisitions and performance. Some of the previous literature has examined the impact of mergers and acquisitions operation on cost efficiency as measured by simple accounting cost ratios (Rhoades, 1990, 1993; Piloff, 1996; DeLong and DeYoung, 2007), the impact on cost X-efficiency (Berger and Humphrey, 1992; DeYoung, 1997; Peristiani, 1997; Berger, 1998; Rhoades, 1998).

Also, evidence supporting mergers and acquisitions to achieve cost saving and efficiency gain is sparse (Kwan and Eelsenbeis, 1999). Akhavein et al. (1997) analysed changes in profitability experienced in the same set of large mergers as examined by Berger and Humphrey (1992). They found that banking organizations significantly improved their profit efficiency ranking after mergers. De Young (1993) does find that when both the acquirer and target were poor performers, mergers resulted in improved cost efficiency. Healy et al. (1992) examined all commercial banks and bank holding company mergers and acquisitions occurring between 1982 and 1986. They found that mergers and acquisitions did not reduce non-interest expenses that could have led to improved efficiency. According to Piloff and Santomero (1997), there is little empirical evidence of mergers achieving growth or other important performance gains. Their findings undermine a major rationale for mergers and consequently raised doubt about other benefits mergers and acquisitions may provide to businesses.

However, Cornett and Tehranian (1992) and Kay (1993) find some evidence of superior post merger period because of the merged firms’ enhanced ability to attract loans. They also show increased employee productivity and net asset growth. Also, this is evident in the Nigeria’s banking industry (Okpanachi, 2006). Walter and Uche (2005) posited that mergers and acquisitions made Nigerian banks more efficient. They used table to present their data which was analyzed using simple percentage. Akpan (2007), using chi square to test his stated hypothesis found that the policy of consolidation and capitalization has ensured customers’ confidence in the Nigerian banking industry in term of high profit. But, for Sobowale (2004) and Osho (2004), it is expected that the value of the companies that participated in mergers and acquisitions activities would be higher than before because future dividends and earning streams are expected to rise and subsequently improves efficiency.

Similarly, Uchendu (2005) and Kama (2007) opined that, the bank consolidation which took place in Malaysia facilitated banks expansion which led to growth. In a related study of the Chilean banking industry, Kwan (2002) found that the high rate of economic activities experienced in Chile was mainly from productivity’s improvement from the large banks formed as a result of mergers and acquisitions. The studies by Berger and Mester (1997) and Stiroh (2002) using data on United States banks suggested that, there may be more substantial scale efficiency from larger sizes of banks as a result of mergers and acquisitions. But for Straub (2007), mergers and acquisitions have often failed to add significantly to the performance of the banking sector. Surprisingly, the majority of studies comparing pre and post mergers performance found that, these potential efficiency derived from mergers and acquisitions rarely materialize (Piloff, 1996; Berger et al., 1999). Towards this end, Beitel et al. (2003) found no gain effect due to mergers and acquisitions, but for Yener and David (2004), mergers and acquisitions played an important role in improving after merger financial performance which is a stimulus for efficiency. Most of the studies examined found that mergers and acquisitions add significantly to the profits of the banking sector, except for Straub (2007) and Rhoades (1993) that have contrary views.
Table 1. Access Bank Plc extracted financial efficiency parameters (2002 to 2008).

<table>
<thead>
<tr>
<th>Period</th>
<th>Pre mergers/acquisition</th>
<th>Base year</th>
<th>Post mergers and acquisitions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002</td>
<td>2003</td>
<td>2004</td>
</tr>
<tr>
<td>Years</td>
<td>Naira (Million)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross earnings</td>
<td>2,604,378</td>
<td>4,367,887</td>
<td>5,515,086</td>
</tr>
<tr>
<td>Profit after tax</td>
<td>(55,245)</td>
<td>556,573</td>
<td>637,473</td>
</tr>
<tr>
<td>Net assets</td>
<td>1,943,784</td>
<td>2,365,357</td>
<td>2,702,830</td>
</tr>
</tbody>
</table>

Source: Researchers’ computation from the published annual reports and accounts, various issues.

Table 2. First Bank of Nigeria Plc extracted financial efficiency parameters (2002 to 2008).

<table>
<thead>
<tr>
<th>Period</th>
<th>Pre mergers/acquisition</th>
<th>Base year</th>
<th>Post mergers and acquisition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002</td>
<td>2003</td>
<td>2004</td>
</tr>
<tr>
<td>Years</td>
<td>Naira (Thousand)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross earnings</td>
<td>46,267</td>
<td>50,597</td>
<td>51,318</td>
</tr>
<tr>
<td>Profit after tax</td>
<td>4,776</td>
<td>11,010</td>
<td>11,483</td>
</tr>
<tr>
<td>Net assets</td>
<td>19,406</td>
<td>27,006</td>
<td>41,605</td>
</tr>
</tbody>
</table>

Source: Researchers’ computation from the published annual reports and accounts, various issues.

METHODOLOGY

For this paper, the population is all the twenty one (21) banks currently quoted in the official daily lists of the Nigerian Stock Exchange (NSE) market as at 30th October, 2009 making up the Nigerian banking sector. Three banks namely: Access Bank Plc, First Bank of Nigeria Plc and Wema Bank Plc were chosen as sample for the study using convenient and judgmental techniques of sample selection. To be selected as a sample, the banks must meet the following criteria:

1. They must retain their identities prior to and after the mergers and acquisitions activities.
2. End of accounting year must be 31st March, which made their published annual reports and accounts available.
3. Members of the group as a result of mergers and acquisitions bid must not exceed three (3).
4. Their Managing Directors were never sacked by the CBN governor under the current reform process.

The paper made use of secondary data obtained and computed from the banks’ published annual reports and accounts covering the periods from years 2002 to 2008 in Tables 1, 2 and 3. Years 2002 to 2004 is the pre mergers and acquisitions period and 2005 is the base year, while 2006 to 2008 is the post mergers and acquisitions period. This we did to compare if there is any significant difference accruing to efficiency in terms of gross earnings, profit after tax and net assets. The collected data were analysed using t - test statistic at 5% level of significant with the aids of statistical package for social sciences (SPSS) version 15 which is an improvement on the ordinary student t-test as used by Adereti and Sanni (2007). The t - test statistic formula is given as:

\[ t = \frac{\sum (X - \mu)}{SE X} \]

where, \( X \) = Sample mean; \( \mu \) = Hypothesized mean; \( SE \) = Standard error, and \( n_1 \) = Sample size.

RESULTS AND DISCUSSION

Here, the study extracted the gross earnings, profits after tax, and net assets from the published annual reports and accounts of the three sampled banks in order to test the formulated hypotheses and make analyses for interpretation of the results.

The tables showed the financial efficiency parameters in terms of gross earnings, profit after tax and net assets extracted from the annual reports and accounts of the three selected banks. From the tables, all the selected banks witnessed improved financial performance as a result of mergers and acquisitions activities leading to more financial efficiency. To test the stated hypotheses, the study applied the t-test statistic which produced results as shown in Tables 4 and 5.

Tables 4 and 5 show the computed t-test from the SPSS output of the sampled banks financial efficiency parameters prior to and after mergers and acquisitions activities. It clearly depicted the combined means, standard deviations and the calculated t-value. Of the three banks after mergers and acquisitions bids, their combined means for gross earnings increased and that of profit after tax declined as a result of high tax charges and increased depreciation charges while the net assets recorded a tremendous increase due to investment in more fixed assets.
Table 3. Wema Bank Plc extracted financial efficiency parameters (2002 to 2008).

<table>
<thead>
<tr>
<th>Period</th>
<th>Pre mergers/acquisition</th>
<th>Base year</th>
<th>Post mergers and acquisition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002</td>
<td>2003</td>
<td>2004</td>
</tr>
<tr>
<td></td>
<td>Naira (Million)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross earnings</td>
<td>7,919,749</td>
<td>9,716,374</td>
<td>12,856,096</td>
</tr>
<tr>
<td>Profit after tax</td>
<td>1,481,667</td>
<td>1,477,775</td>
<td>967,148</td>
</tr>
<tr>
<td>Net assets</td>
<td>3,768,119</td>
<td>7,215,393</td>
<td>8,040,348</td>
</tr>
</tbody>
</table>

Source: Researchers’ computation from the published annual reports and accounts, various issues.

Table 4. t-test descriptive measures of financial efficiency parameters before and after mergers and acquisitions.

<table>
<thead>
<tr>
<th>VAR00014</th>
<th>N</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Std. error mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAR00015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre M and As</td>
<td>9</td>
<td>18799493.6</td>
<td>41524345.054</td>
<td>13841448</td>
</tr>
<tr>
<td>Post M and As</td>
<td>9</td>
<td>21291086</td>
<td>21600435.453</td>
<td>7200145.2</td>
</tr>
<tr>
<td>VAR00016</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pre M and As</td>
<td>9</td>
<td>590321.44</td>
<td>626797.62666</td>
<td>208932.54</td>
</tr>
<tr>
<td>Post M and As</td>
<td>9</td>
<td>2569043.2</td>
<td>6163011.3543</td>
<td>2054337.1</td>
</tr>
<tr>
<td>VAR00017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre M and As</td>
<td>9</td>
<td>13603679</td>
<td>23468095.032</td>
<td>7822698.3</td>
</tr>
<tr>
<td>Post M and As</td>
<td>9</td>
<td>33913088.7</td>
<td>53094556.803</td>
<td>17698186</td>
</tr>
</tbody>
</table>

Source: SPSS output.

Table 5. t - Value statistic of financial efficiency parameters for analytical comparison between the pre and post mergers and acquisitions periods.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>t-value</th>
<th>Prob.</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross earnings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before M and As</td>
<td>9</td>
<td>18799493.6</td>
<td>41524345.1</td>
<td>-0.60</td>
<td>0.875</td>
<td>NS</td>
</tr>
<tr>
<td>After M and As</td>
<td>9</td>
<td>21291086</td>
<td>21600435.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit after tax</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before M and As</td>
<td>9</td>
<td>590321.44</td>
<td>626797.62666</td>
<td>-0.958</td>
<td>0.352</td>
<td>NS</td>
</tr>
<tr>
<td>After M and As</td>
<td>9</td>
<td>2569043.2</td>
<td>6163011.3543</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before M and As</td>
<td>9</td>
<td>13603679</td>
<td>23468095.032</td>
<td>-1.050</td>
<td>0.310</td>
<td>NS</td>
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<tr>
<td>After M and As</td>
<td>9</td>
<td>33913088.7</td>
<td>53094556.803</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS output.

Looking critically at the results of the t-test, one is made to conclude that bank’ mergers and acquisitions exercise has no significant impact on the financial efficiency of the selected banks. This arose from the fact that, the calculated t-values is less than the t-critical value at 5% level of significance; hence, there is no significant difference between the pre and post mergers and acquisitions periods in term of gross earnings, profit after tax and net assets. However, the post mergers and acquisitions periods have a higher performance in gross earnings; profit after tax and net assets has a better performance than the pre mergers and acquisitions periods. Based on the aforementioned, the null hypotheses are rejected. But for Sanni (2009), there was a significant increase in profitability of the four banks used in his study after the consolidation exercise in the Nigerian banking sector while the profitability of other thirteen banks significantly decreased.

CONCLUSION AND RECOMMENDATIONS

The paper attempted to make a comparative analysis of the impact of mergers and acquisitions on financial efficiency of selected banks in Nigeria. The results showed an enhanced financial performance leading to improved financial efficiency, but the t-test statistic result of the three selected banks as contained in the SPSS output depicted an increase in their combined means for gross earnings and net assets while profit after tax
recorded a decline.

There are mixed evidences from researchers on the relationship between mergers and acquisitions, financial efficiency, profitability and performance. Calomiris and Karenski (1996), Caprion (1999), De-Nicolo et al. (2003) are of the opinion that mergers and acquisitions in the financial system could impact positively on both the financial and operational efficiency of most banks. But De Long and De Young (2007) suggested that mergers and acquisitions in the United States banking sector did not have a positive influence on performance in term of improved financial efficiency while Humphrey (1992) found that banks significantly improved their profit efficiency after mergers whereas Healy et al. (1992) found that mergers and acquisitions in the banking sector did not lead to improved financial efficiency which Straub (2007) supported by saying that mergers and acquisitions have often failed to add significantly to the performance of the banking sector.

However, it is still impossible to clearly state whether mergers and acquisitions in the Nigerian banking sector lead to improved financial efficiency. This is because mergers and acquisitions in the Nigerian banking sector is a continuous scheme and the sector is still undergoing reforms as a result of global economic meltdown which affected profits. Also, most of the conclusion reported by researchers on performance pattern of Nigerian banks as a result of mergers and acquisitions concentrated on using similar variables with fewer numbers of banks as population samples for their studies. They could have been differences in results and findings if all the twenty one (21) banks currently quoted in the official daily lists of the Nigerian Stock Exchange (NSE) market as at 30th October, 2009 making up the Nigerian banking sector were used as the population sample for the study.

This study concludes that though there is no significant difference between the pre and post mergers and acquisitions period in terms of gross earnings, profit after tax and net assets as the calculated t-values is less than the t-critical value at 5% level of significant. Also, the study found that the post mergers and acquisitions periods has a higher performance in gross earnings and low performance in profit after tax while net assets has a better performance than the pre mergers acquisitions period. The finding in this paper is quite in agreement with the work of Calomiris and Karenski (1996), Caprion (1999) Nicolo et al. (2003) and Sanni (2009). Therefore, the paper recommends that banks should be more aggressive in financial products marketing to increase financial efficiency for an improved financial position in term of gross earnings, profit after tax and net assets in order to reap the benefit of post mergers and acquisitions bid in the Nigerian banking sector.

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