Bank Capitalization and Cost of Equity on Profitability of Nigeria Deposit Money Banks – General Moment Approach

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Abstract
The recapitalization of the capital base of banks in 2005 constituted the first phase of the reform policy in the entire banking sector of the Nigerian economy. The key elements in the agenda included minimum capital base of N25 billion with a deadline of 31st December, 2005. Most of the banks were able to meet the deadline through mergers and acquisitions amongst other alternatives. This paper examines the trend and the effects of bank recapitalization on deposit money banks in Nigeria in terms of performance and more specifically profitability and cost of equity. The data used for this study were processed using Paired Sample test technique for difference between two periods before and after the recapitalization era in addition to the E-view electronic packages. The test of difference of mean helped us to compare the means of the variables before and after recapitalization to see if there is any significant difference between the two periods. The evidence from the study shows that recapitalization is significant to performance of deposit money banks but has not shown increasing impact on their profitability. We therefore recommend that recapitalization should be part of the integrating process to the development of the banking sector and the banks should put in place proactive measures and policies to enable it boost its profitability level.

Key Words: Capitalization, Performance, Profitability, Cost of Equity, Deposit Money Bank

Introduction
According to Ojo (2010) the word, ‘recapitalization’ connotes restructuring a company's debt and equity mixture, with the aim of making a company’s capital structure more stable. The bank being a major component of the financial system must be well managed so as to ensure sustainable growth in the economy. Banks occupy a strategic position in the financial system of any country. A bank is a financial intermediary or middlemen between the surplus and deficit spending unit of the economy by carrying out
the function of financial intermediation, a bank can increase the volume of national savings, investment and consequently, national output. A bank can also grant credit thus creating money and thereby influencing the level of money supply in the economy.

This is a crucial element in growth of national income because it determines the level of economic activities. It also helps facilitate economic transactions between national and international units and thus promote trade, commerce and industry. Issues on bank recapitalization and consolidation should normally be seen as welcome, in view of the expected benefits from bank operation. But surprisingly, the issue of recapitalizing the banks from N25 billion on or before the end of December 2005 generated more than the necessary heat in the banking industry, mainly because of the manner by which the announcement were made by the Central Bank of Nigeria (CBN), and how the banks were directed to meet the required amount. Capital represents the owner’s interest in the business. On a book value basis, capital is referred to as the net worth which is equal to the book value of assets minus the book value of liabilities. A bank capital, which represents a cushion against the unforeseen, forms the safety net of cushion that allows it to remain solvent and continue operation despite unexpected macroeconomic or institutional disturbances. Too low a level of capital as a percentage of total assets can subject a bank to a disproportionate risk of failure in the face of adverse situation. On the other hand, too high a capital base will reduce gearing, thus, requiring the bank to push up earnings in order to generate a fair return to investors/ shareholders.

There is need, therefore, to ascertain a prudential balance between the need for safety and returns in other to maximize shareholders wealth and safety of depositors’ funds. Regulators and large uninsured depositors, as observed by Johnson and Johnson (1985) cited in Ojo (2010), view capital’s primary function as protection against failure and insolvency. Net worth acts as buffer to absorb loans and other operating losses, and to protect depositors against failure of the bank to perform. The owners may have conflicting view of the function that capital serves. Although owners are interested in the solvency of the bank, the long term ability of a bank to grow depends on its ability to attract adequate capital from the market, which in turn depends on the relative returns provided by the suppliers of that capital. To support higher levels of assets and deposits, that bank must have adequate capital.

The recapitalization and consolidation exercise in the banking industry by the former Central Bank of Nigeria Governor, Professor Charles Soludo has necessitated the need for different organization to engage in corporate Consolidation (mergers and acquisition) to stop the prevalence of some key issue that featured in the banking system which is persistent illiquidity, weak corporate governance, poor assets quality, insider abuses, weak capital base, unprofitable operations, and over-dependency on public sector funds, among others. The concept of recapitalization refers to the current trend of compelling all deposit money banks to raise their capital base from 2billion to 25billion Naira by the Central Bank of Nigeria on or before 31st December 2005. This made some of the banks to consider Merger and Acquisition as a survival strategy. Before recapitalization many deposit money banks had weak capital base and owners of the banks operated them with total disregard for the minority shareholders' interest, e.g., engaged in interest arbitrage and lend heavily to the majority shareholder and their cronies without any credit analysis. Most of the merged banks were of unequalled asset base, liquidity, branch spread, information and technology capability, etc; not to mention different cultures and processes. The usual due process and verification exercises were also hardly carried out before they hurriedly came together and applied to the regulatory authority for an “Approval-in-Principle”. Industry watchers and the general public were quick to identify “strange bed-fellows” in the structure of the consolidated banks. Banks that initially had nothing in common, or had sharply contrasting cultures and systems emerged as a single bank.

There is the issue of whether reforms could be achieved through acquisitions and take over, especially when such acquisitions and take over are portrayed as “Mergers”. One of the implications is that both the shareholders, investing public, depositors, and industry experts were misled into taking poor decisions; in addition to the disharmony and feelings it generate amongst the various staff of the banks. The consolidated banks are still groaning under the weight of high costs of consolidation and bad debts.
There is a need to go further than merely jerking up the capital. It is very necessary not only to address the bank’s ability to lend and perform, but more importantly necessary to adequately address the bank’s poor orientation/attitude and willingness to lend/finance industrial/productive ventures that can accelerate the country’s economic development. This missing link has been the greatest problem in the bank’s failure to perform their expected developmental role over the years which includes lending to the real sector. Rather than financing SME’s and the real productive sectors to boost the depressed industrial and non oil sector, the banks have been ill-resorting to granting huge loan facility to the apparently profitable petroleum activities. For instance, Diamond Bank was reported to have granted huge amount of loan facility to oil companies.

This is reckless utilization of the increased capital, as most relevant enterprise that could foster Nigeria’s economic development are still left unassisted, e.g. over 90% of our small and medium scale industry and farming enterprise are in need of finance on suitable terms. The structure of the twenty-five banks that emerged after the consolidation exercise looks lop-sided. If the desire of the reform is to consolidate and as much as possible minimize casualties, then the so-called “stand alone” banks should have been forced to “take over” the other banks, just as the CBN (as an after-thought) “encouraged” Ecobank and Diamond Bank to take over the “assets and deposits” of All States Bank and Africa International Bank, respectively – in any case the “un-seen” hands of the regulatory authorities can be identified in some of the mergers. By allowing some banks to stand alone the regulatory authority is only confusing the situation and inadvertently polarizing the system. Allowing six banks to stand alone, while a whopping nine came together to consolidate is, to my mind, lopsided and counter-productive, and is bound to make things difficult for the banks. It is obvious the stand alone banks will use their pole position as a marketing tool and the unethical ones amongst them will find it difficult to resist de-marketing their competitors to gain undue advantage. Six years after recapitalization we are yet to see the positive impact of deposit money banks in the real sector (in terms of credit, employment, capacity utilization). It is in this light that the study objective will examine the relationship between bank recapitalization and bank performance and also identify the effects of bank recapitalization on bank profitability. The following research questions will be answered in the course of the paper such as: Is there a significant relationship between bank recapitalization and bank performance? Is there a significant relationship between recapitalization and bank profitability?

In carrying out this research work, attention would be directed to Nigerian deposit money banks depicting the state of the banks before and after recapitalization and its impact on the Nigerian economy.

The study will employ secondary time series data on selected variables covering a time period of 10 years i.e. 2001-2010. This study will justify the recapitalization exercise as directed by the Central Bank of Nigeria and how it has affected the major depositors in terms of their deposits kept, creditors in terms of funds, enlighten shareholders on the potential gain of the approaches used to meet requirement, ascertain whether employees welfare has been well taken care of in a bid to meet recapitalization requirement. This study will convey to government on how to take advantage of the exercise to improve gross lending to the real sector and proffer suggestions to the Central Bank of Nigeria on how effective cooperation can be made so that planned objectives can become a reality. The remainder of this paper is divided into four sections. Section two and three dwells on literature review and methodology. Section four explains data collection, analysis and interpretation while Section five ends the paper with conclusion and recommendations.

**Literature Review**

Globally, the activities of banks reflect their unique roles as the engine of growth in any economy. This role which comes from both banks and non-banks financial intermediaries and the regulatory framework in stimulating economic growth is widely recognized especially in developmental economies. Gurley and Shaw (1956) cited in Bakare (2011) opined that the relationship between real and financial developments shows that financial intermediaries, monetization and capital formation determine the path and pace of economic growth and development of any country. Nevertheless these pivotal roles have not been highly
noticeable in Nigeria; the scenario arises as a result of poor performances of banks. Soludo (2004) identified the problems of the banks as that of persistent illiquidity, unprofitable operations and poor asset base.

According to Imala (2005), the current structure of the banking system has prompted tendencies towards banking effectiveness and efficiency particularly at the retail level. But the questions to ask for which answers should be sought are: has recapitalization achieved its stated objectives? Has it encouraged competition locally and internationally with the new trend of globalization? Has it strengthened the deposit money banks and stimulated the growth of Nigerian economy? Soyinbo and Adekanye (1992), traced recapitalization to take its roots from bank failures, according to them, most banks in Nigeria failed as a result of inadequate capital base, mismanagement of funds, overtrading, lack of regulation and control; and unfair competition from the foreign banks. Thus, recapitalization is one of the banking reforms to tackle these problems.

According to Omoruyi (1991), recapitalization appears to be the main driving force of bank reforms. It focuses mainly on restructuring, rebranding and refurbishing the banking system to accommodate the challenges of bank liquidation. Obviously, adequate capital base is very crucial to the success of any bank. Apart from its multiplier effect on the economy as a whole; it acts as a buffer and security for banks. As Spong (1990) opined that deposit money bank must have enough capital to provide a cushion for absorbing possible loan losses, funds for its internal needs, and expansion and added security for depositors. Adequate capital increases the confidence and financial state of stakeholders. Bank regulators view capital as an important element in holding government banking risks to an acceptable level. Demirguc-kunt and Levine (2003) argued that recapitalization drives bank consolidation (mergers and acquisitions) so that increased concentration goes hand-in-hand with efficiency improvements. They stressed further that consolidated banking system enhances profits efficiency and lower bank fragility. More importantly, high profits arising from this provides a buffer against adverse shocks and increases the franchise value of the banks.

Turning to the effectiveness of recapitalization and its overall economic implications, Sani (2004), Onaolapo (2008) have made some empirical contributions. In his analysis Onaolapo (2008) employed CAMEL rating system to examine the effectiveness of recapitalization. Onaolapo found that recapitalization has improved the financial health of the banks. Onaolapo discovered that the percentage of sound bank has reached the highest point of 70% as at 2006. This finding was collaborated by Sani (2004). Using a regression model, Sani discovered a positive and significant relationship between recapitalization policy and economic growth in Nigeria. He also posited that while few banks recorded appreciable improvements in their performances and majority of the banks remain the same or even worse off.

The proponents of bank recapitalization believe that increased capital base has potentially increased bank returns through revenue and cost efficiency gains. On the other hand, the opponents argued that recapitalization has increased bank’s propensity toward risk taking through increases in leverage and off balance sheet operations after recapitalization exercise. This study aims at investigating why banks still go through distress and even do not have an overall improvement even after recapitalization exercise.

According to Uhomoibhi (2009) the first phase of the reforms was designed to ensure a diversified, strong and reliable banking sector, which will ensure the safety of depositors’ money, play active developmental roles in the Nigerian economy and become competent and competitive players both in the African and global financial systems; while the second phase will involve encouraging the emergence of regional and specialized banks. Agwu, Atuma, Ikpefan, & Iyoha (2014) added that the consolidation exercise, mainly through bank mergers and acquisitions (in order to attain a minimum capital base of N25 billion, approx $250million), is an aspect of the first phase of the reforms. It resulted in the compression of 74 banks, which accounted for about 93 per cent of the industry’s total deposit liabilities, into 25 new banks. Now that the exercise has been concluded, attention has clearly shifted to its term effects on the Nigerian banking system. According to Umar (2009) the central bank of Nigerian’s resolve to carry out reforms in
the banking sector was borne out of the past of the nation banking industry. Between 1994 and 2003 a space of nine years, no fewer than 36 banks in the country closed shops due to insolvency. In 1995 four banks were closed down. But 1998 may go down well in history as the saddest year for the banking industry as 26 banks closed shops that year. Three terminally ill banks also closed shops in 2000. In 2002 and 2003 at least a bank collapsed.

The failed banks had two things in common – small size and unethical practices. Of the 89 banks that were in existence as at July 2004, when the banking sector reforms were announced, no fewer than 11 banks were in distress. According to the CBN report, between 69 and 79 of the banks were marginal or fringe players. Promotion in most of the banks in the pre-consolidation era was to a large extent dependent on the value of deposits a bank staff could mobilize. However, this gave rise to the emergency of unprofessional bankers in the top management levels. Due to cut throat competition among banks, only the top 10 controlled 70% of the total assets of banks in the entire industry. They also controlled about 62.3% of 487 deposit liabilities and 86% share of the industry’s savings deposit.

Yet they could only give between 3-5 % credit to productive sector. Interestingly, after 18 months of racing to raise their capitalization, only two banks intercontinental Bank (now merged with Access bank) and United Bank for Africa, UBA – had share holders funds in excess of N50 billion. They were closely followed by first Bank which had N44.67 billion in share holders’ funds, while about eight banks were in the N31 billion to N40 billion range. Industry analysts were of the view that banks of the future were to emerge from this group. As at the last week of December 2005, when the industry was awaiting the CBN’s final pronouncement on the process, 25 banks had crossed the N25 billion targets. These are banks that embraced the mergers and acquisition options as well as a few of those that were able to raise their capitalization alone. Prior to the re-capitalization process, only two banks in the country had shareholders’ funds in excess of N25 billion – First Bank and Union Bank. But as the reality of the reforms stared the industry players in the face, many banks hurriedly signed memoranda of understanding to merge.

According to Manukas (2006) cited in Umar (2009) many others headed for capital market either to meet the new requirement or enhance their bargaining power for mergers and acquisitions. In the process of consolidation many bank CEOs and chairmen of boards lost their positions as a result of Merger and Acquisition. But more devastating has been the job losses across cadres in the industry. In many banks this has been done quietly, while in other banks, workers have been encouraged to resign with benefits. The governor of CBN had, at the beginning of the process admitted that “there will be job losses but the question then is whether, on a net basis, there will be more job losses after the consolidation than would have occurred”.

The Nigeria Deposit Money Banks Before and After Recapitalization

According to Adams (2011) and Agwu, et al., (2014), the history of the development of the banking in Nigeria can be classified according to four (4) major periods: the first period was before 1980, the second (1980-1990), the third (1990-2005, pre-recapitalization) and the fourth (post recapitalization period). First period: characterized by a few highly regulated banks, largely dependent and controlled by the government. It was easy to guarantee margins despite sector allocation of credit and interest rate control, competition was largely relaxed. The Second period witnessed the introduction of Structural Adjustment Programme (SAP) in the mid 1980’s, banks were forced to reduce controlling interest of government lending to privatization of government shareholdings on existing banks and new entrants came into the industry increasing the number of banks to 120. Third period: characterized by the Nigerian banking subsector plagued with fragmentation, weak internal control and self regulation. Most banks placed customer’s deposit in various domestic and international instruments offering exchange rate in excess of what they paid customers for their deposit.
The success of Nigeria’s banking industry continued to be felt in all spheres of the economy as the banks acquired a larger capacity for financial intermediation. Year 2007 saw a number of banks taking steps to enhance their capital base through a combination of rights issue and public offer, in pursuit of their domestic and regional expansion programmes via a second self-induced wave of consolidation. Several banks grew phenomenally so much so that they entered the league of Africa’s top ten banks and 12 of them rated among the world’s top 1000 banks, the leverage ratio compares favorably with the CBN minimum level of 10 per cent. The post consolidation ratio is also better in terms of its distribution among the banks compared with the pre-consolidation ratio where more than 70 per cent of the equity and assets were concentrated in (the largest five banks) less than 5 per cent of the existing banks. By December 2007, there were some banks with shareholders’ fund in excess of US$1 billion, with the development, most banks in the system had the capacity to undertake big-ticket transactions; banks took initiatives to unbanked rural areas especially the remotest part of the country. Many banks that year expanded their operations to some African countries and other parts of the world.

By the end of 2007, total direct foreign investments in the banking sector stood at over US$1 billion (N117 billion) which was a sign of investors’ growing confidence in the economy despite the global financial crunch (CBN, 2008). No doubt recapitalization favored the Nigerian Banking System, in almost all aspects, for example, since First Bank (as the first bank to set foot on the shores of Europe, specifically the United Kingdom) and Union Bank of Nigeria plc (which followed a year after), more recent emigrants included the likes of Zenith bank plc, Guaranty Trust Bank plc (the first Nigerian bank to offer full fledged commercial banking services: both corporate and retail: having received its operational license from the Financial Services Authority (FSA) one of the strictest financial regulatory authorities in the world) and Intercontinental Bank plc. Access bank which opened for business on October 15, 2008 is the latest of the pack. United Bank Africa plc also has its registered office in the United States of America. All of these, not to mention the rapid expansion of several Nigerian banks into several African continents. In 2009, Ecobank Transnational Incorporated had disclosed plans to set shop in France.

According to Somoye (2008) and from table 1, “the asset size of an average bank which was N42.172billion (US$0.3174 billion) in 2004 grew geometrically to N267.482billion (US$2.0856billion) in 2006 within a year after the consolidation exercise, a growth rate of 534.27 percent. This was an impressive performance. However, an assessment of the level of capitalization of an average bank prior to the exercise indicates an equity base (Net worth) of N 7.71 billion (US$0.06168billion) in 2004 rising to N38.83billion (US$0.31064billion) in 2006, indicating a growth rate of 404 per cent”. The leverage ratio measured in terms of equity to total asset also declined from 18.28 per cent 2004 to 14.52 per cent in 2006 for an average bank. However, the intermediation activities of an average bank improved significantly by about 1,690 per cent from an average deposit base of N10.48billion (US$0.08384) in 2004 to N188.48billion (US$1.50784) in 2006. The profit efficiency/asset utilization has not been impressive. Although the banks have been able to double their gross earnings from their pre consolidation performance level, their profit and asset utilization efficiencies have declined since the conclusion of the consolidation. For instance, the industry return on equity declined from 35.28 per cent in 2004 to 11.12 per cent in 2006, while return on asset declined from 8.37 per cent to 2.09 per cent over the same period. The asset utilization ratio also declined; while an average bank was able to earn 34 kobo for every N1.0 asset in 2004, however, this declined to 11kobo in 2006”.

Thus, while the consolidation has improved the structure of the Nigerian banking industry in terms of asset size, deposit base and capital adequacy, the profit efficiency has not been impressive. The banks will need to become more efficient in terms of their ability to generate enough return to justify the increase in the equity base as well as the resources put at their disposals by their stakeholders. The lending capacity of the banks improved significantly as a result of the consolidation. As at 2004, an average bank could only lend about N14.371 billion, whereas, the consolidation strengthen the bank where a typical bank in Nigeria in 2006 could lend an average of N80.788billion. This represents a growth of 462.13 percent growth.
The Banking Sector and the Economy

We analyze the role of the banking sector relative to the economy, this is to enables us appreciate whether the banking industry will assume any appreciable level importance in the aggregate economy as a result of consolidation. From Table 1, the assets of deposit money banks which stood at 32.89 per cent of the GDP in 2004 rose marginally to 35.43 per cent in 2006. The degree of private sector credit has been suggested to be a better indicator of bank contribution to private investment. In 2004, deposit money banks channelled 24.08 per cent of their lending to the non-bank private sector, but this declined to 22.47 per cent by 2006. Likewise, the value of deposit money bank credit relative to the GDP which was 2.73 per cent in 2004 rose marginally to 2.91 percent in 2006. There has not been any appreciable growth in terms of the growth in credit to the private sector because the deposit money bank credit which has a growth rate of 26.6 percent between 2003 and 2004 grew marginally to 30.8 percent in 2005 and declined to 27.82 percent a year after the consolidation.

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Table 1 Pre-Post Consolidation Performance of the Nigerian Banks

<table>
<thead>
<tr>
<th>Macro Economic Factors</th>
<th>N’m 2004 (a)</th>
<th>N’m 2005 (b)</th>
<th>N’m 2006 (c)</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Lending (N’m)</td>
<td>14,371.238</td>
<td>42,380.180</td>
<td>80,788.854</td>
<td>+462.15%</td>
</tr>
<tr>
<td>Average Assets(N’m)</td>
<td>42,171.66</td>
<td>132,017.34</td>
<td>267,482.50</td>
<td>+534.27%</td>
</tr>
<tr>
<td>Average Deposit(N’m)</td>
<td>10,482.36</td>
<td>85,007.13</td>
<td>188,478.55</td>
<td>+1690.05%</td>
</tr>
<tr>
<td>Average Net Worth(N’m)</td>
<td>7,708.73</td>
<td>19,708.88</td>
<td>38,831.31</td>
<td>+403.73%</td>
</tr>
<tr>
<td>Return on Equity(%)</td>
<td>35.28</td>
<td>12.72</td>
<td>11.12</td>
<td>-24.16(D)</td>
</tr>
<tr>
<td>Return on Assets(%)</td>
<td>8.37</td>
<td>3.01</td>
<td>2.07</td>
<td>-6.30(D)</td>
</tr>
<tr>
<td>Assets Utilization(%)</td>
<td>33.62</td>
<td>11.52</td>
<td>11.04</td>
<td>-22.56(D)</td>
</tr>
<tr>
<td>Total Bank loan &amp; Advance (N’m)</td>
<td>1,294,449.50</td>
<td>1,859,555.50</td>
<td>2,338,718.80</td>
<td>+80.67</td>
</tr>
<tr>
<td>GDP(Current Basic Prices) (N’m)</td>
<td>11,411,070.00</td>
<td>14,572,240.00</td>
<td>18,067,830.00</td>
<td>+58.34</td>
</tr>
<tr>
<td>Real GDP (growth %)</td>
<td>6.5</td>
<td>7.06</td>
<td>7.17</td>
<td>+0.67(D)</td>
</tr>
<tr>
<td>Inflation Rate</td>
<td>10.00</td>
<td>11.6</td>
<td>10.6</td>
<td>+0.60(D)</td>
</tr>
<tr>
<td>Exchange Rate N/$</td>
<td>132.86</td>
<td>129.00</td>
<td>128.3</td>
<td>+3.43(D)</td>
</tr>
<tr>
<td>Min. Lending Rate</td>
<td>18.91</td>
<td>17.8</td>
<td>18.30</td>
<td>+0.61(D)</td>
</tr>
<tr>
<td>Max. Lending Rate</td>
<td>20.42</td>
<td>19.50</td>
<td>28.70</td>
<td>+8.28(D)</td>
</tr>
<tr>
<td>MRR/MPR</td>
<td>12.80</td>
<td>13.0</td>
<td>10.0</td>
<td>+2.80(D)</td>
</tr>
<tr>
<td>Credit to the Private Sector (N’m)</td>
<td>311,646.8</td>
<td>442,008.9</td>
<td>525,482.0</td>
<td>+68.87%</td>
</tr>
<tr>
<td>Bank Market capitalisation(N’m)</td>
<td>662,712.600</td>
<td>1,212,218.545</td>
<td>2,142,745.733</td>
<td>+223.82%</td>
</tr>
<tr>
<td>Bank/NSE Market capitalization</td>
<td>34.41</td>
<td>41.80</td>
<td>41.84</td>
<td>+7.43(D)</td>
</tr>
<tr>
<td>Total market cap. NSE market cap.</td>
<td>1,925,937.530</td>
<td>2,900,062.072</td>
<td>5,120,943.220</td>
<td>+165.89%</td>
</tr>
<tr>
<td>Bank Mkt Cap./GDP</td>
<td>5.80</td>
<td>8.32</td>
<td>11.86</td>
<td>+6.06(D)</td>
</tr>
<tr>
<td>NSE Mkt cap./GDP</td>
<td>5.7</td>
<td>11.8</td>
<td>28.34</td>
<td>+1.22(D)</td>
</tr>
<tr>
<td>Credit to Private Sector growth rate (%)</td>
<td>26.6</td>
<td>30.8</td>
<td>27.82</td>
<td>+0.18(D)</td>
</tr>
<tr>
<td>Credit to private sector/GDP</td>
<td>2.73</td>
<td>3.03</td>
<td>2.91</td>
<td>+0.18(D)</td>
</tr>
<tr>
<td>Average loan/Deposit ratio (%)</td>
<td>72.8</td>
<td>76.7</td>
<td>96.8</td>
<td>+24(D)</td>
</tr>
<tr>
<td>Credit to private Sector/Total loan (%)</td>
<td>24.08</td>
<td>23.77</td>
<td>22.47</td>
<td>+1.6(D)</td>
</tr>
<tr>
<td>Non-financial Private Sector Bank Credit/GDP (%)</td>
<td>2.73</td>
<td>3.03</td>
<td>2.91</td>
<td>+0.18(D)</td>
</tr>
<tr>
<td>Loans Adv.</td>
<td>1,294,449.50</td>
<td>1,859,555.50</td>
<td>2,338,718.80</td>
<td>+80.67</td>
</tr>
<tr>
<td>Total Assets (Nm)</td>
<td>3,753,277.8</td>
<td>4,515,116.67</td>
<td>6,400,783.9</td>
<td>+70.54%</td>
</tr>
<tr>
<td>Total Deposit Liabilities (N’m)</td>
<td>1,661,482.1</td>
<td>2,036,089.9</td>
<td>1,826,275.60</td>
<td>+9.92%</td>
</tr>
<tr>
<td>Capital+ Reserves(N’m)</td>
<td>348,387.6</td>
<td>591,738.7</td>
<td>953,001.20</td>
<td>+173.55%</td>
</tr>
<tr>
<td>Comm. Bank Assets/GDP (%)</td>
<td>32.89</td>
<td>30.98</td>
<td>35.43</td>
<td>+2.54(D)</td>
</tr>
</tbody>
</table>

This confirms the views of Craig and Hardee (2004) according to Somo\'ye (2008). In terms of price stability, the level of inflation increased from 10.0 percent in 2004 - pre-consolidation period to 12.0 per cent, a post consolidation. The analysis suggests that banking sector has not shown a serious response of being able to meet monetary policy expectation. The relative performance of the banking size in terms of asset size, private sector credit, relative to the economy have been very marginal such that it can be safely concluded that the consolidation exercise has not brought about any meaningful contribution with respect to some of these performance indicators.

According to the Nigerian Banking Report, the greatest challenge faced by banks, post consolidation, arose from high capitalization and attendant pressure to generate acceptable returns to shareholders. Consequently, banks had become more enterprising and daring in their quest for profits. This manifested in the array of products being offered to the banking public; and establishment of subsidiaries to compete in areas hitherto dominated by a few players. Many banks had strong records showing in Insurance, Capital Market Operations, Trusteeships, Company Registrars, Assets Management, etc.

However, it is observed that some banks had turned their various subsidiaries into vehicles for circumventing regulatory requirements. For instance, some banks engaged in financing highly risky business activities including speculative trading in stocks and shares through their respective subsidiaries. In fact, it was later revealed by the CBN that banks total exposure to Capital market as at end January 2009 was N784 billion or 10% of total loans. The examined banks exhibited various weaknesses in Corporate Governance. Some of them were yet to imbibe the tenets of the Code of Corporate Governance issued by the CBN in 2006.

Non-performing insider-related debts remained a cause of concern. Board oversight was weak in some of the banks. In some instances, the boards had assigned the responsibility of big-ticket transactions to their respective credit committees that were often dominated by the executive directors. Yet, such boards had failed to institute effective feed-back mechanisms to keep them abreast of the status of their respective bank\’ credit portfolios. Another major challenge is Over-dependence on public sector deposits and foreign exchange trading and the neglect of small and medium scale private savers. There has been the argument that small and medium scale enterprises (SME\’s) had suffered neglect in lending by the emerging mega banks.

Available evidence in the work of Jayaratne and Wolken (1998) cited in Cowry (2009) suggests that bank consolidation will have little effect on credit availability to small firms. Other findings by Cole and Walraven (1998) cited in Cowry (2009) suggest that consolidation in the banking industry may have enhanced rather than restricted the availability of credit to small businesses, although they did not rule out changes in the credit terms. These studies relied on data from the banking system of the United States of America, and thus could not be directly extrapolated to Nigerian banking.

**Mergers and Acquisition – A Queue from Other Economies**

The banking reform programme of one country may provide some good lessons for others, especially those intending to or are already engaged in such exercise. The lesson may assist in guiding policies and guidelines as well as ensuring that the reform goals are achieved with little or no negative consequences. It is on this basis that this study presents an overview of the banking reform in some selected countries with a view to learning some lessons that will shape our financial sector. In Yugoslav, the banking industry restructuring was motivated by the need to establish a healthy banking sector that will carry out its financial intermediation role at a minimal cost. The major aim of the consolidation programme in Yugoslav was to shore up the capital base of banks consolidated through mergers and takeover of local banks; and allows foreign banks to participate in the banking industry by providing additional capitalization through investment infrastructure in new banking products, operating technologies and buying shares of the existing banks.
The banking sector reforms in Japan involved the reform of the regulatory and supervisory framework, the safety net arrangements as well as mechanisms to speed up attempts at resolution of banks non-performing loans. In an attempt to revitalize the Japanese banking system, a package was used comprising among others:

1. The government would work with the bank of Japan (BOJ) to try to have the bad loan ratios of the big banks.
2. The government would act to ensure a tightening of the assessment of bank assets quality, possibly involving the use of discounted cash flow (DCF) techniques in the assessment of the adequacy of provision.
3. Adoption of stricter criteria concerning the banks’ use of deferred tax assets within regulatory capital, with no limits or timetables for implementation.
4. Government conversion of bank preference shares that it already owns because of previous bailouts, into common stock in order to trigger nationalization for institutions whose operations had been seriously impaired and the establishment of a new body to operate pari passu with the resolution and Collection Corporation (RCC) to rehabilitate trouble companies with future prospects appeared bright.

In the United States of America, consolidation of banks through mergers and acquisition is a general phenomenon. The number of banks declined steadily due to consolidation from about 1400 in the mid-80s to 1222 in 1990 and further to 825 a decade later. The first wave of the mergers/acquisitions in the 1980s was precipitated by attempts by stronger banks to acquire weaker and undercapitalized ones, while the second resulted from a response to legislation that liberalized interstate branch banking sector reforms. Despite all the attempts to restructure the banking sector in the United States, there is growing incidences of bank failures particularly the mortgage sector. It stands to reason that bank consolidation would not in the least be a sufficient condition to redress weaknesses in the banking sector. This is the time to begin to look for appropriate mechanism to correct the weaknesses in the financial sector.

The Malaysian banking sectors reform, which resulted from the Asian financial crises in 1990s, generated tremendous public research interest because of the extent of the resilience of the financial system and the economy as a whole in withstanding its impact. To ward off the contagious effects, Malaysian initiated policy measures in April and July of 1997 to curtail banks exposure to the real estate sub-sector and capital markets, and aggressively defended the national currency (ringgit) exchange rate, which it eventually floated. This was followed by the series of other policy interventions in 1998 and 1999, which included institutional blanket guarantee for all bank deposition programme of bank, establishment of Assessment Company and bank restructuring and recapitalization agency, as well as introduction of capital controls.

Specifically, the key elements of the Malaysian banking sector reforms centered on beefing up prudential regulations and the establishment of Danamodal Nasional Berhad and Danaharta Nasional Berhad to consolidate recapitalize and rationalize finance and banking institutions by applying least cost solution principles to minimize the injection of public funds. Accordingly, between 1999 and 2001, 54 banking institutions were consolidated into ten banking groups. Another major reason why Malaysia may have better withstood the impact of the crisis and spent less in weathering the problem were attributed to its strong macroeconomic fundamentals at the time. Prior to the Asian crisis in 1997, inflation rate in Malaysia as at end 1996 was 3.5 percent compared to 7.9 percent in Indonesia and to 4.9 percent in Thailand. Furthermore, most of the capital inflows into Malaysia were of longer term nature in the form of foreign currency above certain level was restricted by government.

Malaysia also had only one large government–owned commercial bank compared to the other countries where their banking sector was highly dominated by government ownership. Besides, Malaysia’s well developed capital market was reported to have limited banking sector financing exposure. Deliotte (2005)
cited in Somoye (2008) concluded that bank consolidation in Asia is such that competitive and market forces are creating an atmosphere where many banks simply cannot afford to have weak balance sheets and inadequate corporate governance. The results in Nigeria cannot be farther from this, in that, any financial reform that is induced by government, uncertified balance sheets and not market driven is bound to witness some failure.

Bakare (2011) added that the idea underlying the consolidation policy is that bank consolidation would reduce the insolvency risk through asset diversification. It is however noted that there is the possibility that credit risk could increase in the event a sound bank merging with an unsound one and that bank consolidations do not significantly improve the performance and efficiency of the participant banks. Thus, strengthening of the balance sheet is imperative to those who seek to be acquired and those who are in pursuit of expansion to avoid bank failure. It is equally noted that consolidation programme through merger and acquisition require time-frame. In Nigeria, however, capitalization was aimed to strengthen the balance sheets of the consolidating banks in the banking industry had involved drawing much of the money from the rest of the economy and this presents one sided reform that is not matched with equal capacity building in the real economy.

**Methodology**

The Research Design used in this work is the descriptive research design which includes the cross sectional data. It would consider the influence of major performance variables within a 10 year periods (2001-2010) with 2006 as the middle year. A sample of five major banks would be used comprising both the old and new generation so as to have full cover of the entire industry.

New generation banks came on board from 1989 with new technology and customer service delivery etc. This study will make use of paired sample test which would assist in the comparison between two periods’ pre-capitalization and post-capitalization periods so as to take note of the vital changes between these periods. Also, econometric analysis would be conducted in order to determine the effects of the exercise on bank profitability over the years.

In carrying out the empirical investigation in this study to statistically determine the relevance of capitalization as a potential policy reform strategy and cost of equity in the banking sector, the authors rationally captured the Nigerian money banks by analyzing their published secondary data. The data were sourced from the financial annual records of the Nigerian deposit insurance corporation for the money banks. The analysis was carried out for the period of ten years comprising of five years annual data before recapitalization exercise and five years annual publication after recapitalization of the banks has been implemented. In this paper the econometric approach of generalized moment’s method was utilized in the data analysis where the standard errors and covariance were computed with estimation weighing matrix. In measuring the linear association between money bank capitalizations, cost of equity (as predictors) and their profit maximization, first differenced instrumental were considered and convergence achieved after twenty three iterations.

The generalized moment’s method is indispensable for sophisticated application including non-linear rational expectations models and dynamic unobserved effects panel data models (Jeffrey, 2001). It also includes time series model studies. The standard method of moment’s estimator has been proven to be more effective and consistent even in small sample size analysis and involves estimating an unknown parameter vector x when its theoretical moments are being equalized with their empirical components. This method has its advantages especially for dynamic panel data as it consistent estimates produces efficient results. This is very essential to correct for the problem of multi-collinearity and endogeneity effects in time series econometric analysis. It is also applicable in situations where the likely hood estimation is extremely difficult (Nielsen, 2005).
Model Specification

To conduct the investigation that examines the effects of mergers and acquisition on bank profitability, the two constructs includes bank profitability and mergers. The model for this study takes the following forms.

\[ Y = \beta_0 + \beta_1x + \mu \]  

Equation (1)

Where:

- \( Y \) = bank profitability (dependent variable)
- \( x \) = bank recapitalization (independent variable)
- \( \beta \) = coefficient of bank recapitalization
- \( \mu \) = error term

Explicitly equation 1 can be defined as:

Bank Profitability = f (bank Recapitalization) + e  

Equation (2)

Representing equation two with the variable of a construct, hence the equation below is formulated with the inclusion of a control dummy variable. This would aid an understanding of the effects of mergers and acquisition in explaining the level of profitability obtained. Therefore:

\[ BPROF = F (BA, BD, BL, SHF, CAP.) \]  

Equation (3)

The general representation of the model is given in the equation below:

\[ Y_t = \alpha + \beta_1X_{1t} + \beta_2X_{2t} + \ldots + \beta_iX_{it} + U_t \]

Where:

- \( Y_t \) = return on equity (ROE).
- \( \alpha \) = constant.
- \( \beta_i \) = slope of independent variables.
- \( X_i \) = independent variables.
- \( U_t \) = error term. (Gujarati 2004)

The reason for the choice of the length of data (2001-2010) is because these periods revolve around the major recapitalization period. It gives a clear view of the banks status in terms of key variables before and after the recapitalization period. Thus, we used five years pre recapitalization period and five years after post recapitalization period to determine the significance of the recapitalization exercise to the position of the banks. To this end, section 4.1 focuses on the preliminary data analysis of the variables using Paired Sample Test. Thereafter in section 5, the panel least squares estimation results shall be presented and its findings discussed. We also used the hypothesis earlier stated to test the main findings of the study in section discussion.

Relationship between return on equity, average lending, deposit growth rate, credit to private sector and loans and advances can be written in explicit linear form as:

\[ BPAT = \beta_0 + \beta_1BA + \beta_2BD + \beta_3BL + \beta_4SHF + \mu \]  

Equation (4)

Where:

- BPROF: profit after tax ((return on equity).
- BA: bank asset.
- BD: bank deposit.
BL: bank loan  
SHF: equity capital/shareholders fund. 
CAP: capitalization policy regime  
\( \beta_1, \beta_2, \text{ and } \beta_3, \beta_4 \) are the unknown parameters. On a priori, for the model 

\[ \beta_1 >0, \beta_2>0, \beta_3>0, \beta_4>0 \]

Our a prior expectation about the relationship between bank profitability and bank recapitalization is that recapitalization has a significant effect on the profitability of banks which in turn influences its competitiveness in the Nigerian Banking Industry.

### Table Showing Variables description

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description/measurement</th>
<th>Source of data</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEARN</td>
<td>This refers to gross profit attained by the bank not affected by tax or interest charges.</td>
<td>Annual Reports of Banks</td>
</tr>
<tr>
<td>BD</td>
<td>It represents the deposit base from which loans and advances are made to generate profit.</td>
<td>Annual Reports of Banks</td>
</tr>
<tr>
<td>BL</td>
<td>This is the amount of money that has been channelled out of the deposit.</td>
<td>Annual Reports of Banks</td>
</tr>
<tr>
<td>ASST</td>
<td>The amount of asset that is available to the bank to carry out operations i.e. both current and fixed.</td>
<td>Annual Reports of Banks</td>
</tr>
<tr>
<td>SHF</td>
<td>The amount of equity investment in the bank’s capital base.</td>
<td>Annual Reports of Banks</td>
</tr>
<tr>
<td>PAIT</td>
<td>This is the net earnings of the bank that is available to be distributed to shareholders.</td>
<td>Annual Reports of Banks</td>
</tr>
</tbody>
</table>

Source: Compiled by the Authors

### Statement of Hypotheses

**Hypothesis 1**

\( H_0 \): There is no significant relationship between bank profitability and bank performance.  
\( H_1 \): There is a significant relationship between bank profitability and bank performance.

**Hypothesis 2**

\( H_0 \): There is no significant effect of bank recapitalization and bank profitability.  
\( H_1 \): There is a significant effect of bank recapitalization and bank profitability.

### Data Presentation, Analysis and Interpretation

In an attempt to test the significance of the 2006 recapitalization on bank performance, this study adopts a simple analysis of comparing profit (before interest and tax) before recapitalization and after recapitalization in order to assess the quality of bank’s assets before and after recapitalization. A test of equality of the mean was carried out using the T-test to see if there is any significant difference in the mean of pre and post recapitalization events and parameters.

This study also employed the time series data framework for its analysis, estimation of the model will be done through regression analysis using the generalized moment methodology (GMM). The generalized moment method is used because GMM data estimation takes multi-collinearity and endogeneity effects in time series econometric analysis into account by allowing for instrumental variables using weight matrix.
Table 3: Sample of Five Deposit Money Banks and the Respective Variables to be Analyzed

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Shareholders Fund</th>
<th>Total Asset</th>
<th>Total Deposit</th>
<th>Total Loans and Advances</th>
<th>Total Gross Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N’000</td>
<td>N’000</td>
<td>N’000</td>
<td>N’000</td>
<td>N’000</td>
</tr>
<tr>
<td>1994</td>
<td>8157</td>
<td>142,303.3</td>
<td>10,001,43</td>
<td>2,459.3</td>
<td>33,506,65.8</td>
</tr>
<tr>
<td>1995</td>
<td>13,147</td>
<td>199,894</td>
<td>15,223,37</td>
<td>4,265.7</td>
<td>37,229,962</td>
</tr>
<tr>
<td>1996</td>
<td>16,705</td>
<td>28,5457.3</td>
<td>19,7904.3</td>
<td>5,968.2</td>
<td>41,365,513.3</td>
</tr>
<tr>
<td>1997</td>
<td>19,110</td>
<td>38,498.6</td>
<td>23,219.6</td>
<td>8,528.5</td>
<td>45,961,681.4</td>
</tr>
<tr>
<td>1998</td>
<td>32,6905</td>
<td>38,1129.6</td>
<td>26,3121.9</td>
<td>10,0028</td>
<td>51,068,534.9</td>
</tr>
<tr>
<td>1999</td>
<td>47,574</td>
<td>53,1648.2</td>
<td>36,8094.3</td>
<td>12,6082</td>
<td>56,742,816.6</td>
</tr>
<tr>
<td>2000</td>
<td>50,442</td>
<td>72,782.4</td>
<td>52,1793</td>
<td>14,1973.2</td>
<td>63,047,574</td>
</tr>
<tr>
<td>2001</td>
<td>38,359,440</td>
<td>558,886,450</td>
<td>379,002,390</td>
<td>106,246,571</td>
<td>70,052,860</td>
</tr>
<tr>
<td>2002</td>
<td>45,917,752</td>
<td>677,905,838</td>
<td>423,716,411</td>
<td>368,094.3</td>
<td>96,083,313</td>
</tr>
<tr>
<td>2003</td>
<td>62,339,933</td>
<td>846,126,040</td>
<td>748,080,35</td>
<td>596,82.3</td>
<td>107,728,877</td>
</tr>
<tr>
<td>2004</td>
<td>84,802,198</td>
<td>907,566,874</td>
<td>852,807,571</td>
<td>119,442,086</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>152,794,000</td>
<td>1,370,829,084</td>
<td>972,977,000</td>
<td>409,766,000</td>
<td>163,095,000</td>
</tr>
<tr>
<td>2006</td>
<td>224,909,886</td>
<td>2,424,223,565</td>
<td>1,880,490,000</td>
<td>590,700,000</td>
<td>254,324,000</td>
</tr>
<tr>
<td>2007</td>
<td>395,038,891</td>
<td>3,529,571,734</td>
<td>2,446,064,000</td>
<td>977,579,000</td>
<td>347,202,000</td>
</tr>
<tr>
<td>2008</td>
<td>758,779,000</td>
<td>6,127,297,000</td>
<td>3,305,376,000</td>
<td>1,786,348,000</td>
<td>588,226,000</td>
</tr>
<tr>
<td>2009</td>
<td>1,052,471,285</td>
<td>6,564,036,000</td>
<td>4,314,165,000</td>
<td>2,685,119,000</td>
<td>886,231,000</td>
</tr>
<tr>
<td>2010</td>
<td>1,087,216,490</td>
<td>6,666,640,773</td>
<td>4,804,121,846</td>
<td>2,971,444,319</td>
<td>755,385,064</td>
</tr>
</tbody>
</table>

Source: Annual reports of banks from 2001-2010.

Unit Root Test

Pivotal to this analytical framework is the determination of the time series properties of the variables. Essentially the rational for this argument is to determine the order of integration and invariably the number of times a specific variable has to be differenced to achieve a stationary trend. In statistical inference the researcher is basically concerned in drawing inference and conclusions from the structure and composition of a particular population study unknown to the researcher. In recent econometric concept it is argued that economic and financial variables that stationary would produce mean and variance that represents the unbiased estimates of the population mean and variance unknown to the researcher. On the contrary, variables that are non-stationary could give rise to wrong statistical inferences when estimated in levels in the absence of a co-integrated series. Hence, the process of verifying the time series characteristics of variables in model estimation would enhance the possibilities of having regression result that is devoid of spurious estimates.

Among the most widely used methods for determining the time series properties of the variables are the Augmented Dickey-Fuller (ADF) and the Phillip Perron (PP) tests which we have employed for this study. Prior to the estimation of the model above, a standard econometric test for unit root was conducted and the result is shown in table 4 below:

Table 4: Result of the Stationarity Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF test statistic</th>
<th>PP test statistic</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAT</td>
<td>-2.905517(-7.01103)**</td>
<td>-1.657342(-4.004425)</td>
<td>Integrated to order 2</td>
</tr>
<tr>
<td>BA</td>
<td>-4.278723(-3.959148)*</td>
<td>-7.564702(-3.959148)*</td>
<td>Integrated to order 1</td>
</tr>
<tr>
<td>BD</td>
<td>-3.913157(-3.081002)**</td>
<td>-3.919600(-3.081002)**</td>
<td>Integrated to order 1</td>
</tr>
<tr>
<td>BL</td>
<td>-4.124325(-3.959148)*</td>
<td>-4.124141(-3.959148)*</td>
<td>Integrated to order 1</td>
</tr>
<tr>
<td>SHF</td>
<td>-4.212360(-3.959148)*</td>
<td>-7.088229(-3.959148)*</td>
<td>Integrated to order 1</td>
</tr>
</tbody>
</table>

NB: the critical t-values are in brackets and computed ADF test statistics are outside the bracket. *, **, *** indicates stationarity at 1%, 5% and 10% respectively.
Econometric Analysis

This section discusses the result of the unit root tests and the estimates of the money banks profitability model with its determinant factors. For proper understanding these are discussed in the following sections below;

Data Properties

Preceding the previous section, the order of integration of the individual variables was ascertained. The result of the Augmented Dickey Fuller (ADF) and Phillip Perron (PP) test statistic are reported in table 4 above. All the variables are expressed in natural logarithmic transformation prior to the statistical analysis and model estimation. It is revealed from table 4, that the results of the ADF and PP tests accept the hypothesis that these variables are non-stationary and more especially of a random walk. This implies the variables are integrated to order 1 (i.e. I (1)) except for LPAT integrated to order 2, (i.e. I (2)) in ADF test. The result further provides evident that the test statistic of the logarithmic first difference of these data are significantly high leading to the rejection of the null hypothesis that their first difference is non-stationary.

Therefore, these variables are referred as I (1) series while LPAT is I (2). Finally, we estimated the profit function above. The estimated GMM result is presented in table 5 below;

Table 5: Dependent Variable: PAT

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>16.74546</td>
</tr>
<tr>
<td>BA</td>
<td>0.084410</td>
</tr>
<tr>
<td>BD</td>
<td>-0.387449</td>
</tr>
<tr>
<td>BL</td>
<td>0.272762</td>
</tr>
<tr>
<td>SHF</td>
<td>0.141723</td>
</tr>
<tr>
<td>CAP</td>
<td>1.247842</td>
</tr>
</tbody>
</table>

Significance at the level of 1% *, 5% **, 10% ***
Source: Author’s Computation with E-View 7.2 version

Table 6: Decision criteria

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>R²</td>
<td>0.95</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.91</td>
</tr>
<tr>
<td>J-Statistics</td>
<td>5.07</td>
</tr>
<tr>
<td>S.E</td>
<td>0.29</td>
</tr>
<tr>
<td>D.W (AR, 2)</td>
<td>2.27</td>
</tr>
</tbody>
</table>

Source: Author’s Computation with E-View 7.2 version

Therefore, the equation is given as:

\[ \text{PAT} = \beta_0 + \beta_1 \text{BA}_t + \beta_2 \text{BD}_t + \beta_3 \text{BL}_t + \beta_4 \text{SHF}_t + \beta_5 \text{CAP}_t + \mu_t \]

The Coefficient of Determination (R²) measures the goodness of the fit. However, R² Adjusted is most suitable because it accounts for the degree of freedom. F-Statistics measures joint significance of all independent variables on the dependent variable. The Durbin Watson shows the presence (or otherwise) of auto correlation. The Durbin Watson shows the presence of auto correlation so we correct for autocorrelation by introducing auto regressor to the order of 2 (AR 2).

Thus, the model is given as:

\[ \text{PAT} = \beta_0 + \beta_1 \text{BA}_t + \beta_2 \text{BD}_t + \beta_3 \text{BL}_t + \beta_4 \text{SHF}_t + \beta_5 \text{CAP}_t + \mu_t \]
Where:

\[ \text{PAT} = \text{the profit after tax (earnings to be paid to equity holders)} \]
\[ \beta_1 = \text{bank asset} \]
\[ \beta_2 = \text{bank deposit} \]
\[ \beta_3 = \text{bank loan} \]
\[ \beta_4 = \text{the amount of equity contribution to the bank’s capital.} \]
\[ \beta_5 = \text{bank capitalization} \]
\[ \mu = \text{refers to the error or random term.} \]

Discussion of Empirical Result

This paper employed the method of first difference generalized moment method to provide empirical support for the economic and financial implications of capitalization policy and cost of equity in Nigerian deposit banks for the period of 2001 to 2010. The result of the cross-sectional analysis in Table 3 above examines the capitalization and cost of equity on banks profitability of deposit money banks in Nigeria. The explanatory power for the model estimate indicates that 95.4 percent of variations in profitability of Nigerian money banks are being accounted for by the changes in the bank asset, bank deposits liabilities, bank loan, and cost of equity and bank recapitalization. This implies that changes in these explanatory variables joint accounted for over 95 percent variations in the profitability of Nigerian deposit money banks. The result of the J-statistic (5.07) shows that the model estimate has an over identification restriction and of good fit for the study. It further reveals that the included exogenous variables are statistically different from zero. The result of the Durbin Watson statistics value (2.2) reveals no incidence of autocorrelation in the estimated model and falls within the acceptable region. The empirical evidence from this paper reveals that deposit bank assets increases the profitability of the banks although not presently significant but signifies the possibility of achieving a significant improvement in profitability through a more prudent utilization in the long run. It is also discovered that despite increases in bank deposit liability there has not been a significant improvement in deposit money bank performance attributed bank deposit for the period considered by the study. This result further portrays the incidences of misappropriation and inadequate management of deposits from the banks. Bank loans have significantly facilitated the profit made by these banks, contributing over 27 percent average profit generated by deposit money banks. This shows that deposit money banks could actually utilize the instrument of loans and advances as a strategy in maximizing profit and improve efficiency of the bank’s performance. However, there is need for a proper feasibility study to be carried out by banks a part from the provision of collaterals to ascertain the profitability of the investment before granting of loans and advances so as to help reduce the occurrence of bad debts and non-performing loans.

Also cost of equity could serve as a veritable instrument that could be effectively employed to facilitate the operations of the Nigerian deposit banks (Ikpefan, Owolabi, Agwu, & Adetula, 2014). An increase in the amount of equity generated by the banks was associated to increase in the profit released from operations of the bank by 14 percent. Therefore properly management of shareholders fund in line with the realization of the banks targets and set out goals cannot be over emphasized as this paramount for profit maximization of the banks. The financial institutions reforms arising from the recapitalization exercise executed by the banks have significantly improved money banks scope of activities and enable them to undertake higher business risk and attract more investment to boast their liquidity level.

There is strong evidence that the resultant impact of recapitalization has led to more than proportionate (over 124 percent) turnover from profit arising from the money banks operations. This further reveals that the recapitalization exercise of deposit money banks is a good step in the right direction. Hence, it is advisable that the deposit money banks strategize on more efficient means of attracting more capital to
increase their capital base beyond the minimum requirements thereby increasing public confidence and trust and at the same time this will enhance their financial capacity to handle viable projects that will yield more profits to the institutions as evidenced from result of this study.

**Testing of Hypothesis**

Here, we want to test the null hypotheses to establish if there is a significant relationship between bank profitability and bank performance.

**Hypothesis I**

\( H_0 \): There is no significant relationship between bank profitability and cost of equity

The GMM results shows that the profitability of banks was positive in relation to bank performance, which means that improved the performance of deposit money banks, will also increase their profit margins because most of performance variables that were employed showed high significance. For example: Shareholders Fund shows significance at a level of 10%, Deposit Liabilities shows significance at 1%, Loans and Advances shows significance at the level of 1% and Gross Earnings shows significance at a level of 1%. The share holder’s fund specifically revealed that a percentage increase in equity investment significantly increases gross earnings by over 14 percent. This implies that the recapitalization exercise to a minimum level of ₦25 billion naira was sufficient enough to boost the banks performance and is able to sustain the level of risk assets they carry in their portfolio.

**Decision:**

On the basis of the above it is difficult to reject the alternative hypothesis. Therefore, at 1% and 10% level of significance we reject the null hypothesis and accept the alternative hypothesis which states that there is a significant relationship between bank profitability and bank performance.

**Hypothesis II**

\( H_0 \): There is no significant effect of bank recapitalization on bank profitability.

**Discussion of Results from Tables:** (See table 5)

There is a positive relationship between bank asset and PAT, as bank asset increase the net earnings of the bank also increases. The T stat shows a significant relationship between bank asset and profit after tax, this implies that quality of a bank’s asset has an impact on the net earnings of the bank. There is an inverse relationship between PAT and BD which reveals that most times bank deposit do not increase the profitability of the bank also increases and vice versa. This implies with an increasing deposit liability available, the banks may not profitably trade with larger deposits to yield high returns.

There is a positive relationship between PAT and BL which shows that as bank loan increases the net profitability of the bank measured by its profit after tax increases and vice versa. This implies that as a bank increases the amount of loans it gives out, the profit margin is expands, this is because most of the loans given out turns out to become performing loans with multiplier effect on investment earnings which would increase the profit value. There is a positive relationship between PAT and SHF as shareholders fund increases then the return on equity also increases and vice versa. That is if shareholders increases their investment then there is likely possibility that the returns on shareholders fund will also increase because banks would have enough fund to undertake profitable and high yielding investments. Despite the varying benefits of recapitalization, it has not really impacted on the net profit of the bank that is the return attributed to shareholders after deducting all necessary charges.
Decision

Table 5 shows there is a negative relationship between bank deposit and bank profitability which means that the cash deposit from customers has not yielded enough profit as expected. This implies that banks have not really imbibed the features or cannons of effective and efficient fund management. The result of this is that there has been increasing mismanagement and appropriation of funds which has declined the banks profit. Following the above result the null hypothesis (H₀) should be rejected while the alternative (H₁) should be accepted that bank recapitalization has significant effect on bank profitability.

Findings, Recommendations and Conclusion

Theoretical Findings

The theoretical findings obtained from the literature include amongst others:

(i) According to Cowry (2009), several banks grew phenomenally so much so that they entered the league of Africa’s top ten banks and 12 of them rated among the world’s top 1000 banks. By 2007 year end, there were some banks with shareholders’ fund in excess of US$1 billion, with that development; most banks in the system had the capacity to undertake big-ticket transactions. Many banks during the year expanded their operations to some African countries and other parts of the world. By the end of 2007, total direct foreign investments in the banking sector stood at over US$1 billion (N117 billion) which was a sign of investors’ growing confidence in the economy despite the global financial crunch.

(ii) So far, there have been disagreements whether recapitalization has brought about financial stability and growth. While Ikpefan, et al., (2014) discovered that there has been a significant impact of recapitalization on economic growth in Nigeria, Somoye (2008) examined the effectiveness of recapitalization on the performance of 20 banks and discovered that while few banks recorded appreciable improvements in performance, majority of the banks remained the same or even worst off.

(iii) According to Cowry (2004) and Agwu, (2014) the recapitalized banks showed weakness due to attendant pressure to generate revenue to shareholders which made them engage in highly risky ventures including speculative trading in stocks and shares through their respective subsidiaries and had circumvent regulations and led to increasing number of insider related debts, non performing debt and overdependence on public sector funds. In fact, it was later revealed by the CBN that banks total exposure to Capital market as at end January 2009 was N784 billion or 10% of total loans thus leading to series of distress syndrome.

(iv) Soyinbo etal (1992) and Omoruyi (1991) believed that recapitalization is a way to tackle bank distress. The former pointed out that recapitalization takes its roots from bank failures, according to them, most banks in Nigeria failed as a result of inadequate capital base, mismanagement of funds, overtrading, lack of regulation and control; and unfair competition from the foreign banks, thus, recapitalization is one of the banking reforms to tackle these problems. The later stated that recapitalization appears to be the main driving force of bank reforms. It focuses mainly on restructuring, rebranding and refurbishing the banking system to accommodate the challenges of bank liquidation.

Empirical Findings

In this paper the generalized moment methods of analysis was carried out to determine the impact of four different variables namely; asset, bank deposit (BD), bank loan (BL), shareholders fund (SHF) on the profit after tax (PAT); the empirical findings of the data analysis are presented here: To this end the variables used to measure performance were: Shareholders Fund, Total Asset, Deposit, Loans and Advances as the exogenous factors while the profit after tax was the explained variable.
(i) The recapitalization exercise has helped to improve the gross earnings of the bank, deposits, loans and advances, shareholders fund at least in the short run. It has helped the bank undertake big ticket transactions with increased deposit, the earnings of banks’ have increased on the average. The loan capacity of banks has also improved considerably; lastly equity investment has gone up considerably and has also improved the equity capital and reserves.

(ii) The asset value is a significant factor for the banks net earnings so banks should make sure that their asset base, that is, both current and fixed are of high quality and command high value. Investment in asset should increase sufficiently so as to improve the profit after tax of the bank.

(iii) Bank deposit which is considered serves as a major way also to improve the earnings of the bank as loans are mobilized from deposit liabilities. From the analysis made there is an inverse relationship between bank loans and profit after tax which implies that as deposit liabilities is not significantly increasing the profit after tax and vice versa. Most of banks deposits are traded and the revenue generated from these deposits adds to the earnings of the bank. The major problem with deposits is that most of the bank deposits are volatile, vulnerable and short termed, overdependence on public sector funds and as such is not sufficient enough to increase banks earnings because of its short termed nature.

(iv) There is a positive relationship between bank loans and bank profitability which means that the loans given out have yielded enough profit. This implies that banks have really imbibed the features or cannons of good lending to some extent. The result of this is that there has been increasing performing loans that has improved and added value to the banks profit.

(v) The equity holdings of the bank have significantly impacted on the bank profitability and reveals a positive relationship, that is, the shareholders fund increases the bank profit margins. This then implies the bank should also increase its shareholdings as way to boost the earnings of the bank.

**Recommendations**

Based on the findings of this study, the researchers would like to make the following recommendations:

(i) We would like to recommend that the banks should consider other ways to improve the quality of its asset so that it can improve banks performance. It should also consider the implementation of good corporate governance practise as a valuable and precise way of improving what makes up its asset base (both fixed and current asset) have positive multiplier effect on its performance. The bank should improve on the quality of its asset from time to time so as to increase net earnings; the bank should also disallow asset tripping by members of staff.

(ii) We would like to recommend that recapitalization is good for Nigerian banking sector. It is expedient that the regulatory authority should maintain and review the capitalization upward from time to time in order to sustain the state of revival and stability in the banking sector. In other words, the banking sector together with its complementary institutions should be strengthened and bank failures should be adequately tackled.

(iii) The banks should be concerned with deposits that are relatively stable, non volatile, reduce over dependence on public sector fund and ensure that the deposit given out as loans are repaid as and when due.

(iv) Banks should consider granting loans and overdraft to SME’s that can accelerate the economic growth and development and avoid lending to risky sectors.
(v) Directors and board members should advise shareholders to increase their level of equity investment so as to enable the bank have a large fund that it can trade with to generate increasing revenue, they can also encourage investors by issuing right issue and bonus shares.

Conclusion

The study has reviewed the effectiveness of bank recapitalization in sustaining the financial system. We notice that there seems to be a presumption that the reform in the banking sector is one basic requirement to fix the economy. Hence, the banks recapitalization exercise of 2005 as supervised by the Central Bank of Nigeria has yielded basketful of benefits in terms of improved banking environment. Without doubt, the recapitalization exercise as experienced in Nigeria has played a significant role in banks’ capital base as well as restoring confidence among banks’ customers and thus improves business transactions. Consequently, recapitalization has in one way or the other enhanced the development of Nigerian economy and the banking sector is becoming competitive and market forces are creating an atmosphere where many banks simply cannot afford to have weak balance sheets and inadequate corporate governance.

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