

## An Analysis of the Impact of Mergers and Acquisitions on Commercial Banks Performance in Nigeria

Olagunju Adebayo Obademi Olalekan PhD Department of Financial Studies, Redeemer's University, PMB 3005, Redemption Camp, Mowe Ogun State, Nigeria. Email: olalekanobademi@yahoo.com or olagunju66@yahoo.com Tel: +234-8036285605 or +234-8037076626

#### Abstract

Mergers and acquisitions (M&A) in the corporate world are achieving increasing importance and attention especially with the advent of intense globalization. This is evident from the magnitude and growth of deal values and resultant 'mega-mergers' transacted in recent times. This research work attempts to assess the implication of merger and acquisition of commercial banks in Nigeria on their profitability and other associated measures of performance. The research analysis used published audited accounts of ten (10) out of twenty-four (24) banks that emerged from the consolidation exercise and data from the Central Banks of Nigeria which consists of both primary data. The relevant data collected were analyzed and tested using simple percentage and tables. Subsequently, the three hypotheses formulated in this study were tested using correlation co-efficient (r2) and T-Test. The result of the analysis revealed that there is significant relationship between pre and post merger/acquisition capital base of commercial banks and level of profitability, there is significant difference between pre and post-merger acquisition earnings per shares. Merger/acquisition have also increased the capitalization of commercial banks with evidences of changes in company's share ownership, increase in the cost of services and changes in bank lending rates. Based on these findings, it can be concluded that the merger and acquisition programme has improved the overall performances of banks significantly and also has contributed immensely to the growth of the real sector for sustainable development

Key-words: Mergers and acquisitions, profitability, capitalization, commercial banks and Earnings per share

#### Introduction

Banks are the linchpin of the economy of any country. They occupy central position in the country's financial system and are essential agents in the development process. By intermediating between the surplus and deficit savings' units within an economy, banks mobilize and facilitate efficient allocation of national savings, thereby increasing the quantum of investments and hence national output (Afolabi, 2004).Through financial intermediation, banks facilitate capital formation (investment) and promote economic growth.

The decade 1995 and 2005 were particularly traumatic for the Nigerian banking industry; with the magnitude of distress reaching an unprecedented level, thereby making it an issue of concern not only to the regulatory institutions but also to the policy analysts and the general public. Thus the need for a drastic overhaul of the industry was quite apparent.

In furtherance of this general overhaul of the financial system, the Central Bank of Nigeria introduced major reform programmes that changed the banking landscape of the country in 2004. The main thrust of the 13-point reform agenda was the prescription of minimum shareholders' funds of 25 billion for Nigerian Deposit money bank not later than December 31, 2005. In view of the low financial base of these banks, they were encouraged to merge. Out of the 89 banks that were in operation before the reform, more than 80 percent (75) of them merged into 25 banks while 14 that could not finalize their consolidation before the expiration of the deadline were liquidated.

Mergers and acquisitions are not new, for instance, between 1993 and 1996 about 1500 mergers were recorded in the USA (Pilloff 1996), a similar experience was observed in the Europe and Asian continents (Schenk 2000).

To a large extent, consolidation is based on a belief that gains accrue through expenses reduction, increased market power, reduced earnings volatility, and scale and scope economies. However, the characteristics of the kind of reforms induced mergers and acquisition of the banking industry creates doubts about its potentials of realizing efficiency gains. A deeper look at the 25 banks that emerged after the consolidation shows that most banks that were regarded as distressed and unsound regrouped under new names or fused into existing perceived strong banks not necessarily to correct the inefficiency in their operating system but just to meet the mandatory requirement to remain afloat and to continue business as usual.

Mergers and acquisition or any other form of consolidation may influence bank interest rates, competition and transmission mechanism of monetary policy in so far as the increase in size and the opportunity for reorganization involved may either provide gains in efficiency that bear on marginal costs or give rise to increase in market power, or both together. Gains in efficiency would be obtained in moving on to greater scale of activity (if there are economies of scale).

Since the essence of any reforms is to bring greater efficiency not only in the operation but also their contributory role to the overall economy, then it is important to also raise the issues whether the recent mergers and acquisitions have really impacted positively on both credit allocation and saving mobilization through reduced cost of borrowing and increased returns on savings.

Whether or not bank mergers actually achieve these expected performance gains still remain critically an empirical question. If consolidation does, in fact, lead to gains, then shareholder wealth can be increased. On the other hand, if consolidating entities do not lead to the promised positive effects, then mergers may lead to a less profitable and valuable banking industry. Mergers and Acquisitions are commonplace in developing countries of the world but are just becoming prominent in Nigeria especially in the banking industry.

Umoren (2007) posits that merger and acquisition is simply another way of saying survival of the fittest that is to say a bigger, more efficient, better-capitalized, more skilled industry. It is primarily driven by business motives and/or market forces and regulatory interventions. The issues therefore, which this study intend to address are whether merger and acquisition will bring about efficient reliable and sound capital base for the bank that fully embraced mergers and to what extent can bank merger boost the confidence of the customers, the investors, the shareholders and ability to finance the real sector of the economy.

Therefore, since the importance of merger and acquisition cannot be overemphasized, this prompted the researchers interest to assess the perceived consequences of mergers and acquisitions on the banking sector in Nigeria.

## Theoretical And Conceptual Framework

## History Of Banks Recapitalization In Nigeria

According to Elumilade (2010), the Nigerian banking system has undergone remarkable changes over the years, in terms of the number of institutions, ownership structure as well as depth and breadth of operations. He observed that these changes have been influenced largely by challenges posed by deregulation of financial sector, globalization of operations, technological innovations and adoption of supervisory and prudential requirements that conform to international standards.

Capitalization is an important component of reforms in the Nigeria banking industry, owing to the fact that a bank with a strong capital base has the ability to absolve losses arising from non performing liabilities. Attaining capitalization requirements may be achieved through consolidation of existing banks or raising additional funds through the capital market (Ajayi, 2005).

Adegbaju (2007), while stating that recapitalization of banks is not a new phenomenon, he stressed that right from 1958 after the first banking ordinance in 1952, the colonial government then raised the capital requirement for banks especially the foreign commercial bank from 200,000 pounds to 400,000 pounds. Also, in 1969, capitalization of banks was N1.5million for foreign banks and N600, 000 for indigenous commercial banks. In 1979 when the merchant banks came on board the Nigeria banking scene, the capital base was N2million.

Since the 1980s, there have been further increases in the capital base, particularly coupled with the liberalization of the financial system and the introduction of Structural Adjustment Programme (SAP) in 1986. In February 1988, the capital base for commercial banks was increased to N5million while that of merchant banks was pegged at N3million. In October that same year, it was jerked up to N10million for commercial banks and N6million for merchant banks. In 1989 there was further increase to N20million for commercial banks and N12million for merchant banks.

Similarly, Ajayi et.al (2005), opined that in recognition of the fact that well-capitalized bank would strengthen the banking system for effective monetary management, the regulatory authority increased the minimum paid-up capital of commercial and merchant banks in February 1990 to N50 and N40 millions from N20 and N12 millions respectively. Distressed banks whose capital fell below this were expected to comply by 31st March, 1997 or face liquidation. Twenty six of such banks comprising 13 each of commercial and merchant banks wee liquidated in January, 1998.

The minimum paid up capital of merchant and commercial banks was subsequently raised to uniform level of N500 million with effect from 1st January, 1999. In 2001, when the universal banking was adopted in principle, the capital base was jerk up to N1billion for existing banks and N2 billion for new ones. However, in July 2004 the new governor of the Central Bank of Nigeria (CBN) announced the need for banks to increase their capital base to N25 billion, and all banks were expected to comply by December 2005. At the end of the recapitalization exercise, only 25 banks survived out of former existing 89 banks before the mergers and acquisitions among the banks.

www.iiste.org

#### **Banks Consolidation Through Merger And Acquisition**

Consolidation is achieved through merger and acquisition. A merger is the combination of two or more separate firms into a single firm. The firm that results from the process could take any of the following identities: Acquirer target or new identity.

Acquisition on the other hand, takes place where a company takes over the controlling shareholding interest of another company. Usually, at the end of the process, there exist two separate entities or companies. The target company becomes either a division or a subsidiary of the acquiring company (Pandey, 1999:885).

While consolidation involves merger and acquisition of banks, convergence involves the consolidation of banking and other types of financial services like securities and insurance.

Anecdotal evidence indicates that the commonest form of mergers and acquisitions found in the financial services industry involves domestic firms competing in the same segment (for instance, bank to bank). The second most common type of merger and acquisition transactions involves domestic firms in different segments (e.g. bank-insurance firms). According to Mangold and Lippok (2008), cross-border merger and acquisition are less frequent, particularly those involving firms in different industry segments. There are underlying theories for regulatory institution's push for mergers and acquisitions among which is the theory of concentration.

#### A Eview Of Bank Concentration Theories

Concentration refers to the degree of control of economic activity by large firms Sathye, (2002). Increase in concentration levels could be due to considerable size enlargement of the dominant firm(s) and / or considerable size reduction of the non-dominant firm(s). Conversely, reduction in concentration levels could be due to considerable size reduction of the dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s) and / or considerable size enlargement of the non-dominant firm(s). Athanasoglou *et al.*, (200) The degree to which bank market structure matters for competition and performance has been a "hotly debated topic". The outcomes of numerous researches have resulted in the existence of numerous bank concentration theories in literature. In the main, these theories could be classified into pro-concentration theories and anti-concentration theories. The theoretical analysis of the concentration implications of the Nigerian banks consolidation exercise shall be based on these theories.

#### **Pro-Concentration Theories**

Proponents of banking sector concentration argue that economies of scale drive bank mergers and acquisitions (increasing concentration), so that increased concentration goes hand-in-hand with efficiency improvements Demirguc-Kunt and Levine, (2000).

To buttress this point, Boyd and Runkle (1993) examined 122 U.S. bank holding companies and found an inverse relationship between size and the volatility of asset returns. However, these findings are based on situations in which the consolidations were voluntary, unlike the case with the concluded banks consolidation exercise in Nigeria. Some theoretical arguments and country comparisons suggest that a less concentrated banking sector with many small banks is more prone to financial crises than a concentrated banking sector with a few large banks. This is partly because reduced concentration in a banking market results in increased competition among banks and vice-versa. Proponents of this 'concentration-stability' view argue that larger banks can diversify better so that banking systems characterized by a few large banks will be tend to be less fragile than banking systems with many small banks.

According to Allen and Gale (2003), concentrated banking systems may also enhance profits and therefore lower bank fragility. High profits provide a buffer against adverse shocks and increase the franchise value of the bank, reducing incentives for bankers to take excessive risk.

Furthermore, a few large banks are easier to monitor than many small banks, so that corporate control of banks will be more effective and the risks of contagion less pronounced in a concentrated banking system Beck, Demirguc-Kunt and Levine (2003).

#### The Nigerian Banking Industry In Perspective

In Nigeria, the banking industry has gone through different stages and phases ranging from 'changeovers', 'takeovers' and 'buyouts' since 1892 and these are with their peculiarities.

#### a. First Stage: The Embryonic Phase

The African Banking Corporation with its headquarter in South Africa pioneered the Nigerian banking system in 1892 followed by the British Bank for West Africa' (now First Bank of Nigeria Plc) in 1894 while Barclays Bank D.C.O. (now Union Bank of Nigeria Plc) and the British and French Bank (now United Bank for Africa Plc) were established in 1925 and 1949 respectively (Danjuma, 1993; Ebhodaghe, 1990; Ibru, 2006).

The story of indigenous banking in Nigeria began with the establishment of the National Bank of Nigeria Limited in February 1933 and the Agbonmagbe Bank Limited (now Wema Bank Plc) in 1945 as well as the African Development Bank Limited, which later became known as African Continental Bank Plc in 1948. The

establishment of these indigenous banks ushered in the era that saw the constant monopoly erstwhile enjoyed by the foreign owned banks challenged (CBN, 2008; Ebhodaghe, 1990).

b. Second Stage: The Expansion Phase

The chain in banking industry stepped up to stage two (2) which is the expansion of the Nigerian banking sector to the Rural Banking Scheme in1977, Peoples' Bank in 1989, and Community Banks (now Microfinance Banks) in 1990 to encourage community development associations, cooperative societies, farmers' groups, patriotic unions, trade groups, and other local organizations, especially in rural areas to imbibe formal banking methods. Between 1985 and 1991, banks sprout from 40 to 120 (Agbaje, 2008; Bichi,1996; Ebhodaghe, 1990,1995; Mordi, 2004) due to the liberalization of the banking sector.

c. Third Stage: The Consolidation/Reform Stage

The phase started on January 1, 2006 when the Nigerian eighty nine (89) banks shrunk to twenty five (25). The consolidation exercise then required banks to raise their minimum capital base from N2 billion to N25 Billion, with December 31, 2005 as deadline (see table 2). This increase representing about 1,150% was to amongst other things encourage the consolidation of the banking sector to produce mega-banks from the then existing 89 banks as most of them were just fringe players and financially unsound (Soludo, 2008). Other financial institutions included government-owned specialized development banks: the Nigerian Industrial Development Bank, the Nigerian Bank for Commerce and Industry, and the Nigerian Agricultural Bank, as well as the Federal Savings Banks and the Federal Mortgage Bank. Also active in Nigeria were numerous insurance companies, pension funds, and finance as well as leasing companies.

d. Fourth Stage:

This research is clamoring and calling for the fourth stage of only three banks; one of which one will be indigenous while the rest two should come through Foreign Bank Penetration, FBP from the United States and Europe respectively.

## **OBJECTIVES OF THE STUDY**

## **RESEARCH METHODOLOGY**

The basic research design used in this study was survey. The population of the study consisted of banks that emerged victoriously during the consolidation exercise in Nigeria. The sampling method used to select ten banks out of the population was simple random sampling technique. With this sampling procedure, every bank had an equal chance of being selected out of the population of the study. Table 1 shows the number of banks involved and the number of questionnaires distributed and returns of questionnaires. The three hypothesized statements were tested using correlation co-efficient and T-Test

#### **MODEL SPECIFICATION**

The correlation co-efficient  $r^2$  was used in measuring the degree of correlation or association between the two variables of this study. For the variables that can conveniently be grouped as dependent (Y) and independent (X). Some variables of this research may not be put as dependent and independent, therefore, the use of letters X and Y was used to delineate the variables but not a causative arrangement. It is these variables that would demand ascertainment of correlation. Where;

Coefficient of correlation, r = :

Correlation Coefficient, 
$$r = \frac{NSumXY - (SumX)(SumY)}{\sqrt{[NSumX^2 - (SumX^2][NSumY^2 - (SumY^2]]}}$$

Where;

| Х        | = deviation of each value in one variable from the means of |
|----------|---|
|          | the variable  |
| Y        | = deviation of each value in the other variable from the    |
|          | mean of that variable                                       |
| XY       | =product of the deviation in one variable and the deviation |
|          | in the other variable                                       |
| Ν        | =numbers of cases compared                                  |
| TC · 1 / |   |

If r is between -1 to 1, there is a correlation between x and y, but where; r = o there is no correlation.

## The T-Test

The t test is used to determine the prior and post performance of an activity. This sort to test, according to Okpara (1998:17). Could be used for testing performance before and after economic, political or social policy has been adopted and displayed (see so Ali, 1996:14, and on a group after some treatment has been meted upon



the groups. In our own case, we shall use it to evaluate the effect of Merger and Acquisition on corporate performance of commercial banks in Nigeria. The t- statistic is given by the formula.

$$t = \frac{\sum d}{\sqrt{\frac{N\sum d^2 - (\sum d)^2}{N - 1}}}$$

Where;

d = the difference between each paired observation

- d<sup>2</sup> = the square of the difference between each paired observation
- N = the number of paired observation
- $\Sigma$  = the usual sigma notation

N-1 = the degree of freedom

#### **Decision Rule**

If the probability (or significance) of the t calculated is less than 5%, we accept the alternative hypothesis and otherwise, we should accept the null hypothesis.

#### **Data Summary**

Based on the questionnaire prepared and administered on 106 respondents that made up the sample of the study, the following data in table (4.1) below was generated from the population of the study through purposive sampling technique.

| S/N | Bank/C.I                        | No          | % of No     | No Returned | % of No  | No Not   |
|-----|---------------------------------|-------------|-------------|-------------|----------|----------|
|     |                                 | Distributed | Distributed |             | Returned | Returned |
| 1   | А                               | 6           | 5.7         | 4           | 4.21     | 2        |
| 2   | В                               | 6           | 5.7         | 4           | 4.21     | 2        |
| 3   | С                               | 6           | 5.7         | 4           | 4.21     | 2        |
| 4   | D                               | 6           | 5.7         | 5           | 5.26     | 1        |
| 5   | E                               | 6           | 5.7         | 5           | 5.26     | 1        |
| 6   | F                               | 6           | 5.7         | 4           | 4.21     | 2        |
| 7   | G                               | 6           | 5.7         | 5           | 5.26     | 1        |
| 8   | Н                               | 6           | 5.7         | 6           | 6.32     | 0        |
| 9   | Ι                               | 6           | 5.7         | 6           | 6.32     | 0        |
| 10  | J                               | 6           | 5.7         | 6           | 6.32     | 0        |
| 11  | Customer/Investors              | 35          | 33          | 25          | 26.32    | 0        |
|     | TOTAL                           | 106         | 100         | 95          | 100      | 11       |
| ~   | <b>E1</b> 1 1 <i>G</i> <b>B</b> |             |             |             |          |          |

## Table 1: Distributions and Return of Questionnaires

Sources: Field Survey Data, June 2011

A total of one hundred and six (106) copies of questionnaires representing 100% were distributed to the members of the senior staff, junior staff, management staff and customers/investors of the ten (10) randomly selected banks in Nigeria, out of which ninety five (95) representing 90% were returned, while eleven (11) copies of the questionnaire indicating 10% were not returned. Consequently, only ninety-five (95) questionnaires representing 90% were eventually used for data analysis.

#### **Test Of Hypothesis**

The three hypotheses are stated below:

Ho: there is no significant relationship between pre-merger/acquisition equity capital base and profitability of commercial banks.

H1: there is significant relationship between pre-merger/acquisition equity capital base and profitability of commercial banks.

Ho: there is no significant relationship between post-merger/acquisition equity capital base and profitability of commercial banks.

H1: there is significant relationship between post-merger/acquisition equity capital base and profitability of commercial banks.

H<sub>0</sub> :There is no significant difference between pre-merger and post-merger earnings per share.

H<sub>1</sub> :There is significant difference between pre-merger and post-merger earnings per share.

#### Results

The result of the first hypothesis showed that capital base is very significant in influencing the profitability of commercial banks as value of  $r^2$  falls between 0.8 to 1.0 which shows very high relationship. We therefore accept alternate hypothesis (H1) which states that there is positive relationship between capital base and profitability of commercial banks. We therefore, reject null hypothesis (H0).

In the second hypothesis, falls between 0.8 to 1.0 which shows very high relationship? We therefore accept alternate hypothesis (H1) which states that there is positive relationship between capital base and profitability of commercial banks. We therefore, reject null hypothesis (Ho). The third hypothesis propounded for empirical investigation deals with one major challenge. In connection with this hypothesis we employ the t-test of statistical analysis. We got 2.262 (tabulated), since this value is less than the calculated value above (i.e 7.16), we therefore reject the null hypothesis and accept the alternative hypothesis which states that there is significant difference between pre and post merger/acquisition earnings per share of commercial banks.

## Findings

The research findings are summarized as follows:

- i. Mergers and acquisitions of commercial banks has consequently increased the capital base of banks.
- ii. Increase in capital base of commercial banks does not only enhance revenue generation but acts as a hedge against future losses, economic slow-down and to secure the capital of shareholders.
- iii. There are drastic changes during pre and post- merger and acquisition of commercial banks in terms of asset structure, liquidity and capital structure.
- iv. Consolidation has helped to curb the problem of illiquidity (customer's deposit were used for trading and check inadequate capital to meet maturing obligations as at when due) in the capital structure of commercial banks.
- v. Mergers and acquisitions, has significantly affected the earnings per share of investors.
- vi. The financial activities of the bank being a fall-out of the merger process have to some extent benefited most of the customers and the shareholders. Among such benefits are improvements in the bank profitability, improved asset structure, strong capital base, increased stock value, liquidity among others.
- vii. The study further shows that the merger and acquisition of banks have acted as a catalyst for enhanced control, rapid growth and survival of banks in Nigeria.
- viii. Recapitalization was made possible as a result of merger and acquisition of commercial banks.
- ix. Mergers and acquisitions of banks has significantly influenced dividend per share of shareholders.
- x. Consolidation of the banking sector has led to changes in company's share ownership.
- xi. Mergers and acquisitions have significant impact on the level of stock value of commercial banks.
- xii. Higher risk exposure is a possibility
- xiii. There has been increase in the cost of services as a result of merger/acquisition of commercial banks in Nigeria.

#### Conclusions

In this study, attempts have been made to assess the resultant effect of mergers and acquisition in the Nigeria banking sector with respect to its profitability performance and the economy. From the analysis carried out, it is evident Hypothesis, the study concludes that mergers and acquisition have increased profitability and enhanced control, and survival of banks in Nigeria.

The study shows that the mergers and acquisitions in the banking industry have significantly influenced profitability of commercial banks, earnings per share and dividend per share of shareholders.

Equally important, is the fact that introduction of consolidation through merger and acquisition has brought about changes in ownership structure. It has brought about decentralization of ownership to many shareholders contrary to over centralization of ownership in the hand of few shareholders prior merger and acquisition of commercial banks in Nigeria.

More importantly, the merger has helped to curb the problem of illiquidity characterized by the banks trading with customer's deposits. The idea underlying the consolidation policy is that bank consolidation would reduce the insolvency risk through asset diversification.

The study further shows that one of the fall outs of the mergers is the shrinkage in the industry from 89 to 24 banks .Nigeria now have mega banks with huge capital to invest , but it is instructive to note that size and huge capital do not necessarily make a good and sound bank. What makes a sound bank is really how effective and efficient the management of the bank is deploying the available resources.

Generally, the study affirms that for a bank to survive in the current dispensation it needs to maximize its comparative advantage (strength), by promoting its uniqueness in the areas where it performs best. The decisive factors for competition and profitability in the new era would be the optimization of reduces by the emerging mega banks .If any bank wishes to compete in the coming era, now is the time to plan for optimal resources structure, because the banks with the best brains and best hands would have an uncommon edge not only for future profitability but also survive future shocks.

## References

Adegbite, L. O. and Carew, K. O. (1989): Practice and Procedure of Mergers. The Gravitas Review of Business and Property Law, April, Pp. 47-55.

Afolabi, J. A. (2004): Implication of the Consolidation of Banks for the Nigerian Banking System. Paper Presented at the NDIC Organized Workshop for FICAN Enugu.

Agbaje, O. (2008): 'The Banking Industry in 2008'. Business day Online. Available at:Http://Www.Businessdayonline.Com/Analysis/Backpage/4569.Html (Retrieved 2 June 2008).

Ajayi K., and Oyetunde O. (2005): "Consolidation and Merger Reform of the Nigeria Banking Sector – The Perspective of Angels & Trolls".

Akinade, A. and Owolabi, T. (2009): Research Methods (A Pragmatic Approach) for Social Sciences, Behavioural Sciences and Education. Lagos: Connel Publications.

Allen, F. and Gale, D. (2003): "Competition and Financial Stability". Journal of Money, Credit, and Banking, 36, Pp. 433-480. And Acquisition in Nigeria – Analysis of Performance Pre-and-Post Consolidation", Lagos Journal of Banking, Finance and Economic, Vol; 1, Pp. 151 – 164, July. And Banks' Performance – A Case Study of Nigeria"; Journal of Banking, Finance and Economic Issues; Vol. 1, No. 2, Pp 143 – 155, October.

Amel, D, C. Barnes, F. Panetta, and C. Salleo (2002): "Consolidation and Efficiency in the Financial Sector; A Review of International Evidence," Journal of Banking and Finance, Vol 10, No2.

Athanasoglou, P.P., Brissimis, S.N. and Delis, M.D. (2005): "Bank-Specific, Industry-Specific and Macroeconomic Determinants of Bank Profitability". Bank of Greece Working Paper, No. 25.

Services Industry: Causes, Consequences, and Implications for the Future," Journal of Banking and Finance 23, 135-194

Bichi, K., (1996): 'The Genesis of Banks Distress', Credit News Magazine, 7(1&2), February-March, Pp. 28 – 29.

BIS, (2001): "Risk Management Principles for Electronic Banking: A Basel Committee Publication 2001.

Bourgeois, L.J. III. (1980): Performance and Consensus. Strategic Management Journal, 1:22-48.

Buono, A. F. & Bowditch, J.L. (1988): The Human Side of Mergers and Acquisitions: Managing Collisions between People and Organizations. San Francisco: Jossey-Bass.

CBN, (2005): Annual Report For The Year Ended 31 December, 2005. [Online].

Availableat:Http://Www.Cenbank.Org/OUT/PUBLICATIONS/REPORTS/RD/ 2006/ARP 2005- PART1.PDF Retrieved 3 June (2010).

CBN, (2008). 'Indigenous Banking in Nigeria', Central Bank of Nigeria. [Online]. Available at

Cyert, R.M. & March, J.G. (1963): A Behavioral Theory of the Firm. Malden, MA: Blackwell Publishers Inc.

Danjuma, N., (1993): The Bankers' Liability, Ibadan, African University Press. Europea Journal of Social Sciences – Volume 15, Number 4 (2010) 562.

Datta, D.K. (1991): Organizational Fit and Acquisition Performance: Effects of Post-Acquisition Integration. Strategic Management Journal, 12: 281-299. Available at:Http://Www.Cenbank.Org/Documents/Gpagedocs.Asp (Retrieved 22 May 2008].

Ebhodaghe, J., (1995): 'Causes and Environment Effects of Bank Failure in Nigeria', NDIC Quarterly, Vol. 6, September.

Elumilade D.O. (2010): "Mergers & Acquisitions and Efficiency of Financial Intermediation in Nigeria Banks: An Empirical Analysis .International Journal of Business Management. Available A Http://Www.Ccsenet. Org/Journal/Index. Php/Ijbm/Article/View file/54 96/4729 (Retrieved July 5, 2010).

Furlong, Fred (1998): "New View of Bank Consolidation" FRBSF Economic Letter 98-23; July 24,

Gaughan, P., (2007): Mergers, Acquisitions, and Corporate Restructurings, 2nd Ed. New Jersey, John Wiley & Sons Inc.

Haleblian, J. & Finkelstein, S. (1999): The Influence of Organizational Acquisition Experience on Acquisition Performance: A Behavioral Perspective. Administrative Science Quarterly, 44:29-56.

Hayward, M.L.A. & Hambrick, D.C. (1997): Explaining the Premium Paid for Large Acquisitions: Evidence of CEO Hubris. Administrative Science Quarterly, 42: 103-127.

Haspeslagh, P.C. & Jemison, D.B. (1991): Managing Acquisitions: Creating Value through Corporate Renewal. New York: The Free Press.

Hughes, J.P., W. Lang, L.J. Mester and C.G. Moon (1998): "The Dollars and Sense of Consolidation" Working Paper No. 98-100, Federal Reserve Bank of Philadelphia.

Ibru, C. (2006) 'Overview of Financial Environment In Nigeria'. Working Paper, Lagos, Nigerian Army College of Logistics.

International Labour Organization (2001): The Employment Impact of Mergers and Acquisitions in the Banking and Financial Services Sector. Report for Discussion at the Tripartite Meeting on the Employment Impact of Mergers and Acquisitions in the Banking and Financial Services Sector, Geneva .Available at: Http://Www.Ilo.Org/Public/English/Dialogue/Sector/Techmeet/Tmbf01/Tmbf-R.Pdf Retrieved July 28, 2010.

Jemison, D.B. & Sitkin, S.B. (1986): Corporate Acquisitions: A Process Perspective. Academy of Management Review, 11: 145-154.

Jimmy A.E. (2008): An Evaluation of Organic Growth, and Mergers and Acquisitions as Strategic Growth Options in the Nigerian Banking Sector. Online M.A. Thesis, the University of Nottingham, Nottingham. Available At:

Http://Edissertations.Nottingham.Ac.Uk/1780/1/08malixaj14.Pdf Retrieved On July 27, 2010

Kesner, I.F., Shapiro, D.L. & Sharma, A. (1994): Brokering Mergers: An Agency Theory

Perspective on the Role of Representatives. Academy of Management Journal, 37: 703-21.

Lubatkin, M. (1983): Mergers and the Performance of the Acquiring Firm. Academy of

Management Review, 8: 218-226.

Madubueze, J. A. (2007): "Mega-Banking in Nigeria's Business Environment: Emerging Issues"; The Nigerian Banker – Journal of the Chartered Institute of Bankers of Nigeria, January – March, 2007, Pp.

Mangold N.R and Lippok K. (2008): The Effect of Cross-Border Mergers and Acquisitions Shareholder Wealth. Journal of International Business & Economics. Available At: Http://Www.Britannica.Com/Bps/Additionalcontent/18/35637611/The-Effect-of-Crossborder-Mergers-and-Acq uisitions-on-Shareholder-Wealth-Evidence-from-Germany Retrieved 28 July, 2010.

Megginson William L. (2005): "Leverage, Productivity and Firm Growth in Nigeria Banking Industry" Published by Elsevier B.V., September.

Michiru Sawada and Tetsuji Okazaki (2003): "Effects of Bank Consolidation Promotion Policy: Evaluating the Bank Law in 1927 Japan" Research Project Undertaken by the Authors at the Research Institute of Economy, Trade and Industry (RIETI) at the NBER Japan Project Meeting September, Tokyo.

Mordi, C.N.O.(2004): 'Institutional Framework for the Regulation and Supervision of the Financial Sector', Central Bank of Nigeria Bullion, 28(1), Pp. 25-35.

Nahavandi, A. & Malekzadeh, A.R. (1988): Acculturation in Mergers and Acquisitions. Academy of Management Review, 13: 79-91.

Ogunbameru, A. (2004): Research Methods in Social Science. Norway: D-Net Communications.

Olakunori Olakunle K. (1999): Successful Research: Theory and Practices, Enugu, Computer Edge Publishers.

Osuala, C. (2005): Introduction to Research Methodology. Onitsha: Africana Publications Ltd.

Onyido, B.C. (2004): 'The Role of the Central Bank of Nigeria in the Nigerian Financial System', Central Bank of Nigeria Bullion, 28(1), Pp. 13-19

Okonkwo, C.O. (2004): 'Legal Framework for Mergers and Acquisitions'. Central Bank of Nigeria.[Online].Available at:

Http://Www.Cenbank.Org/OUT/PUBLICATIONS/BSD/2005/LEGAL%20FRAM

EWORK%20FOR%20MERGERS%20%20ACQUISITIONS.PDF [Accessed 3 June 2008].

Owokalade Taiwo O. (2006): 'Corporate Restructuring Post Consolidation Strategies and Challenges''; Journal of the Chartered Secretary and Administration, August.

Soludo, C.(2008): 'The Unfinished Revolution in the Banking System'. [Online]. Presentation at the University of Agriculture, Abeokuta on March 18, 2008 by the CBN Governor. Available at:Http://Www.Cenbank.Org/OUT/SPEECHES/2008/Govadd26-3-08.Pdf [Accessed 2 June 2008].

Somoye, R.O.C. (2006a): "Compressing the Unwieldy Banking System in Nigeria: The Probabilities of Soludian Hypothesis I" 1st International Conference on Structural Reforms and Management of Financial Institution in Nigeria, Department of Banking and Finance, Olabisi Onabanjo University, Nigeria, ISSN-978-047-627-6

## APPENDIX

## **TEST OF HYPOTHESIS 1**

## Table 2: Significant Relationship Between Pre-Merger Capital Base And Profitability Of Banks

| Banks | Average              | Average         | X <sup>2</sup>         | XY                   | Y <sup>2</sup>      |
|-------|----------------------|-----------------|------------------------|----------------------|---------------------|
|       | capital base         | РАТ             |                        |                      |                     |
|       | X                    | Y               |                        |                      |                     |
|       | <del>N</del> Billion | N Billion       | <mark>₦</mark> Billion | <del>N</del> Billion | <b>₩</b> Billion    |
| А     | 6.4                  | 0.6             | 40.96                  | 3.84                 | 0.36                |
| В     | 12.6                 | 0.7             | 158.76                 | 8.82                 | 0.49                |
| С     | 10.9                 | 1.2             | 118.81                 | 13.08                | 1.44                |
| D     | 19.9                 | 0.4             | 396.01                 | 7.96                 | 0.16                |
| Е     | 5.2                  | 1.0             | 27.04                  | 5.20                 | 1.00                |
| F     | 0.9                  | -2.2            | 0.81                   | -1.98                | -4.84               |
| G     | 39.1                 | 1.6             | 1528.81                | 453.56               | 134.56              |
| Н     | 7.1                  | 4.2             | 50.41                  | 29.82                | 17.64               |
| Ι     | 16.5                 | 4.0             | 272.25                 | 66.00                | 16.00               |
| J     | 17.0                 | 3.9             | 289.00                 | 66.30                | 15.21               |
|       | $\sum x = 135.6$     | $\sum y = 15.4$ | $\sum x^2 = 2,882.86$  | ∑xy=652.6            | $\sum y^2 = 192.02$ |

Source: Bank's Published Financial Statements

$$r = \frac{10(652.6) - (135.6)(15.4)}{\sqrt{[10(2,882.86) - (135.6)^2][10(192.02) - (15.4)^2]}}$$

$$r = \frac{6,526 - 2,088.24}{\sqrt{[28,828.6 - 1,8387.36][1,920.2 - 237.16]}}$$

$$r = \frac{4,437.76}{\sqrt{[10,441.24][1,683.04]}}$$

$$r = \frac{4,437.76}{\sqrt{17573024.57}}$$

$$r = \frac{4,437.76}{4,765.58}$$

$$r = 0.9312$$

## **TEST OF HYPOTHESIS 2**

## Table 3: Significant Relationship between Post-Merger Capital Base and Profitability of Banks

| Banks | Average          | Average PAT      | X <sup>2</sup>        | XY            | Y <sup>2</sup>        |
|-------|------------------|------------------|-----------------------|---------------|-----------------------|
|       | capital base     | Y                |                       |               |                       |
|       | Х                | ₦ Billion        |                       |               |                       |
|       | N-Billion        |                  | N Billion             | N Billion     | N Billion             |
| А     | 80.4             | 8.6              | 6,464.16              | 691.44        | 73.96                 |
| В     | 31.6             | 6.0              | 998.56                | 189.60        | 36.00                 |
| С     | 68.6             | 18.4             | 4,705.96              | 1,262.24      | 338.56                |
| D     | 63.2             | 7.5              | 3,994.24              | 474.00        | 56.25                 |
| Е     | 63.7             | 6.4              | 4,057.69              | 407.68        | 40.96                 |
| F     | 16.9             | -6.7             | 285.61                | -113.23       | -44.89                |
| G     | 159.8            | 21.6             | 25,536.04             | 3,451.68      | 466.56                |
| Н     | 83.0             | 14.4             | 6,889.00              | 1,195.20      | 207.36                |
| Ι     | 100.9            | 11.5             | 10,180.81             | 1,160.35      | 132.25                |
| J     | 133.5            | 23.8             | 17,822.25             | 3,177.30      | 566.44                |
|       | $\sum x = 801.6$ | $\sum y = 111.5$ | $\sum x^2 = 80934.32$ | ∑xy=11,896.26 | $\sum y^2 = 1,873.45$ |

Source: Bank's Published Financial Statements

 $N(\sum xy) - \sum x \sum y$ Coefficient of correlation  $r = \frac{1}{\sqrt{n}}$ 

$$\frac{N(\Sigma x^2) - (\Sigma x)^2}{N(\Sigma x^2) - (\Sigma x)^2} [N(\Sigma y^2) - (\Sigma y)^2]}$$

$$r = \frac{118,962.6 - 8,978.4}{\sqrt{[809,343.2 - 642,562.56][1,873.45 - 12,432.25]}}$$
$$r = \frac{29,584.2}{\sqrt{[166,780.64][6,302.25]}}$$
$$r = \frac{29,584.2}{\sqrt{1051093288}}$$

 $=\frac{29,584.2}{32,420.6}$ 

= 0.9125

#### **Test of Hypothesis 3**

 Table 4.21.Significant Difference between Bank's Pre and Post- Merger/Acquisition Earnings Per Share

 (EPS)

| Bank | Pre-merger/acquisition<br>average EPS<br>(Kobo) | Post-merger/acquisition<br>average EPS<br>(Kobo) | D      | D <sup>2</sup>        |
|------|---|--|--------|-----------------------|
| А    | 18  | 60   | 42     | 1,764                 |
| В    | 60  | 77   | 17     | 289                   |
| С    | 26  | 85   | 59     | 3,481                 |
| D    | 15  | 73   | 58     | 3,364                 |
| Е    | 30  | 27   | -3     | 9                     |
| F    | -154  | -70  | 84     | 7,056                 |
| G    | 260   | 216  | -44    | 1,936                 |
| Н    | 124   | 160  | 36     | 1,296                 |
| Ι    | 26  | 83   | 57     | 3,249                 |
| J    | 177   | 236  | 59     | 3,481                 |
|      | 582   | 947  | ∑D=365 | $\Sigma D^2 = 25,925$ |

Sources: Bank's published Financial Statement, 2003-2008.

$$D = \frac{\frac{365}{10} = 36.5}{\frac{5}{10} = 36.5}$$

$$t = \frac{\sum d}{\sqrt{\frac{N \sum d - (\sum d)^2}{N - 1}}}$$

$$t = \frac{36.5}{\sqrt{\frac{10(25,925) - (36.5)^2}{10^2(10^2 - 1)}}}$$

$$t = \frac{36.5}{\sqrt{\frac{259,250 - 1,332.25}{100(99)}}}$$

$$t = \frac{36.5}{\sqrt{\frac{257,917.75}{9,900}}}$$

$$t = \frac{36.5}{\sqrt{26.0523}}$$

$$t = \frac{36.5}{5.10}$$

$$t = 7.16$$

Degree of freedom = (N-1)

# = 10-1

## = 9 and 0.05

We get 2.262 (tabulated), since this value is less than the calculated value above (i.e 7.16), we therefore reject the null hypothesis and accept the alternative hypothesis which states that there is significant difference between pre and post merger/acquisition EPS of commercial banks.

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage: <u>http://www.iiste.org</u>

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. **Prospective authors of IISTE journals can find the submission instruction on the following page:** <u>http://www.iiste.org/Journals/</u>

The IISTE editorial team promises to the review and publish all the qualified submissions in a fast manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

## **IISTE Knowledge Sharing Partners**

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library, NewJour, Google Scholar

