Determinants of Selected Banks' Performance in the Pre and Post Merger Period: The Case of Nigeria

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ABSTRACT

This thesis examines the determinant of pre and post-merger period on the performance of selected commercial banks in Nigeria with more emphasis on capital adequacy, return on asset, return on equity, liquidity and efficiency. For this thesis 16 banks were selected using a more convenience and judgmental sample selection methods. Data were collected from published annual report and accounts of the selected banks were subsequently analyzed applying regression analysis through statistical package.

This result shows that post-merger and acquisition era for ROA was more financially improved than post-merger period ROE after comparing pre and post. Therefore the studies recommence that banks should be more proactive in driving for profit for enhancing financial performance to reap the benefits of mergers and acquisition bid in Nigeria banking sector. This thesis suggest that bank manager should embark on regular training and re training of their staff as well as proper handling of post-merger and acquisition challenges. Government should make sure banks pay good attention to ratio such as capital adequacy because applying minimum capital adequacy ratios serves to protect depositors and promote the stability and efficiency of the financial system.

Keywords: capital adequacy, liquidity, asset quality, efficiency, mergers and acquisition (M&A).

ÖZ

Bu çalışma, birleşme ve devralmaların etkisini Nijerya ticari bankaları üzerinden incelemektedir. Seçilen ticari bankaların daha çok sermaye yeterliliği, aktif getirisi, öz sermaye getirisi, likidite, varlık kalitesi ve verimlilik üzerindeki etkilerini incelemektedir. Bu çalışma için 16 farklı banka kullanılmıştır. Bu bankaların verileri her bir kurumun resmi yayınladığı yıllık raporlardan elde edilmiştir. Elde edilen veriler daha sonra regresyon analizinde kullanılarak istatistiksel çerçevede incelenmiştir. Yapılan testler göstermiştir ki, birleşme ve devralmaların sonrasındaki süreç finansal olarak bu sürecin öncesine kıyasla gelişme göstermiştir. Bu nedenle, yapılan çalışma Nijerya'daki bankaların finansal performanslarını geliştirmek amacıyla daha fazla proaktif bir rol oynamasını önermektedir. Burada önerilen, hem banka yöneticilerinin hem de çalışanlarının düzenli olarak eğitim alarak birleşme sonrası ortaya çıkabilecek sorunlara karşı yeterli tecrübeye sahip olmaları gerekliliğidir. Ayrıca, banka yönetimi tarafından kullanılan toplam aktif fazlalığının devredilmesi anlamında toplam aktiflerin artırılması gerekmektedir.

Anahtar kelimeler: sermaye yeterliliği, likidite, varlık kalitesi, verimlilik, birleşme ve satin alma.

To My Beloved Family

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Chapter 1

INTRODUCTION

1.1 Background of the Study

The international economic reform and banking sector development require the increase and boosting of the banking sector in making ways to examine the fulfillment and capability of the banks in pre and post mergers and acquisition season. The consolidation process in Nigeria is an action towards the sign or outbreak of mergers and acquisition that has been advancing around the globe. The Nigeria Central Bank defines its principal objective of the consolidation as to reduce the uncertainty in the financial system and its approach from the current consolidation that occurred in other countries.

The mergers and acquisition of the banking industry in Nigeria, just like other countries around the world, made the banks more capable, active, better funded and well advanced in this area. Mergers and acquisition are policies presented to inform or to take into account the financial institutional problems. The accomplishment of the banks is examined by looking at two performance measures called the efficiency and the profitability. The consolidation of the banks has been quickened in the last 10 years. More importantly, more figure of the consolidation in this area took place around the governmental surrounding. In a related study of the Chilean banking

industry, Kwan (2002) suggested that the high rate of economic activities experienced in Chile was mainly from the productivity's improvement from the large banks formed as a result of mergers and acquisitions. Central Bank of Nigerian Governor Charles Chukwuma Soludo started a fresh set of rules and regulation in the country's banking system on July 6, 2004. The bank chief (Soludo) outlined his position at the gathering of senior ranked officers of the banking industry during a special general meeting. He spoke and told the country's bankers group in charge on a long-term discussion regarding the financial impact of banking sectors field and the size of one by one bank.

The bank chief Soludo interposed saying that Nigerian financial framework can fully benefit through several combinations or alliance amongst several banks. He clearly mentioned that only those financial institutions that have the least capital needed ($172,000,000 in 2005 roughly) 25 billion naira notes best before the December 31, 2005, which would be given the chance to have in hand the general public sector money and to publicly sell out their shares. The governor realized that his desire was in benefit of a sector where small number of banks could conquer the Nigerian financial sector; thereby opened a way for a new idea of banking industry in mergers and acquisition.

However, 89 banks in the Nigerian banking scheme made it up before the mergers and acquisition with reduced capital base and weightless guidelines (very small number of inflicted laws). There were 25 banks treated as marginally active in 2005. It is because they happened to be part of the largest banks with $240 million funded reserve.

The recently concluded consolidation process in the Nigerian banking industry with only 25 banks surviving the exercise on December 31, 2005 was the largest process in the Nigerian banking system's history. During the final phase of the consolidation activities, advanced bigger financial firm and fresh comprehensive financial firm were originated of which they came from the blending of some poor firms in order to attain requisite, with regards to absorption of poor financial firm through stronger ones for their capital base.

The Nigerian commercial system anticipated decline can be answered by the mergers and acquisition that became as the main guideline tool, which was caused by poor organization style, undercapitalized deposit, high privilege of deficiencies in the collective control of banks and weak administrative framework. Banking sector reform in Nigeria was introduced.

The banks consolidation in Nigeria is a measure move to and corrects the appeared failure likely in the financial sector so as to avoid any probabilities of the future circumstances. One of those symptoms of the banking crisis also includes large amount of nonperforming loans and poor organization control. Moreover, a country like Nigeria with an open economy can face various uncertainties with banking failures from other nations as a result of the weak financial infrastructure. The focus of accomplishment of bank mergers and acquisition is to empower the Nigerian financial sector, so as to ensure the healthy contest, to improve the profitability, to embrace the advancement in technology and to increase the efficiency.

The primary goal of the mergers and acquisition is to ensure that the financial institution approached the assumption and intention of having the capability to play

out the artistic role of encouraging the financial development by empowering the financial institution on savers and lender role in order to increase the overall financial fulfillment and other benefits. Financial institutions witness the worst crisis in history in 1990s, which resulted in 21 out of 25 financial institutions to collapse.

However in order to prevent such failure, the room for Nigeria Deposit Insurance Corporation was formed (Sanusi Lamido 2010). Those banks that were described as failed banks were distributed over to the Nigerian Deposit Insurance Corporation (NDIC). Guarantee depositors were paid #50,000 naira.

Most academicians have in mind that merger and acquisition can lead to the rise of the breadth of the firms that consider mega banks, and also add to significant rise in financial returns with regards to earnings. Capitalization is a needed tool for this reform in the financial sector as a result of powerful capital base; a bank can simply withstand losses from liabilities. The merger and acquisition are put in play to give away the rise in off balance sheet activity and debt as a result of the increase in bank propensity toward risk taking. Those required standards can be derived through several patterns such as public offers through the capital or private placement right issues for existing shareholders.

The 13-point reform agenda was established by central banks governor for the Nigerian banks during his inauguration in 2004. The primary element of the 13-point calendar included 25 billion naira; the least capital requirement which was (158,553,967.51 USD) in December 2005. Shareholder fund was a real debate among them in this agenda which needed too in comply best before December 31. Capitalization is an important tool of reforms in the Nigerian banking industry, owing

to the fact that a bank with a strong capital base has the capability to absolve losses arising from non-performing loans.

Chapter 2

LITERATURE REVIEW

Mergers and acquisitions are a well-known business terminology used in achieving the business prosperity and survival. Merger brings about the coming together of two or more firms to become one big firm while acquisition is the purchase of a small firm by a large firm which goes after the similar goal. Generally new trend in the financial institution have brought another phase nationwide of which the main agenda is relocating the ongoing pattern of affairs so to be productive as well as beneficial.

In the recent waking of the global turnabout, it seems to be the case in Nigeria that the financial system has not lived up to the assumption and expectation in the pre-mergers era (1980-2004). It is because it broke down and failed in measuring up to the appropriate level that has to deal with providing the needed capital for the advancement and progress of the main area of the economy as supposedly planned. Given the recent direction in finance nationwide, this is now certain and crucial for every bank in the world to be transformed in order to encourage the competition and the competency to carry out the key function of the financing investments. Looking at the previous information, the transformation in the financial sector was caused and propel by the need to move and change the system for the development and growth in order to be integrated into the nationwide financial ideology. The reform in the banking sectors was induced by the need to reposition the system for growth so as to take into account universal financial plan and creation of a financial system which is in line with the integration of finest methods and regional needs (Michad 2012). Since 1980s, financial reforms have been implemented by many developing countries as

part of a wider market oriented economic reform. Banking activities in today's world is named as the engine of the economic growth in any country. Merger and acquisition is purely a representation of a financing agenda and the alliance can generate huge stakeholder unit, with huge amount of customer and rising capacity. It is predominantly propelled by the invention of new technology, financial service deregulation, enhancing intermediation, upward verve on the financial worth of shareholders with financial services free-trade and competition.

As to boost the competitiveness, the financial system has to be willing to combine by merging into the huge financial framework. There are several reasons to the cause of inadequacy of banks in Nigeria such as the weak supervision. The primary purpose of financial system nationwide is to secure the cost cohesion and upgrade faster financial development with growth. In Nigeria, it has remained unreachable emerging towards the carelessness of the financial sector, and the instability which was caused by huge amount of small banks with little branches, little fund reserve and then medium fund reserve of the banks which was as low as 10 billion. The mergers and acquisition in Nigeria are as a result of inadequacy of the banks which then led to hazard and uncertainty witness by Nigerian depositors.

The primary aim of the financial system nationwide is to secure the cost stability and upgrade faster economic development as well as growth by Imala (2005). Craig and Hardee (2004) carried out a research and they debated that lending is becoming increasingly scarce because of banks consolidation. Enterprise with negative equity usually runs out of favor when financial firm implement method such credit scoring and formula computation. This method only favors mega banks. Ultimately, it is rare for small business to go in consolidation without the use of capital been involved.

Hughes and Mester (1998) suggest that in a field where there are economics of scale, managers then are averse to take risk. However, the level of financial capital base available in a financial firm can determine how risky that firm is.

Hughes and Moon (2000) state that risks exist in the banks, but economics of scale has not been able to identify the risks that are present. Better performance in banking can only be guaranteed if the bank organization is willing to take the risk consciously in its decision making and fully utilize the diversifications that come with the economics of scale. Proper diversification that leads to huge scale can reduce credit and liquidity risks all things been equal. Banks should avoid speculation of bad news because if such information or news get to the public it will create tension among the depositors and make them to want to collect all their money at the same time leading too banks run. Most of the mergers and acquisition in the world today have been carried out with a mindset that no financial organization is too large that it cannot collapse, so as to avoid the possibility of failure. Generally, it is good to know whether or if the combinations of the financial institution attract favorable earning or causes decline in asset among equity holder in that financial institution. Many feel that the process negatively affects shareholders that are involved.

The impact of innovation has increased the speed of the merging of financial institution and created a forceful competition for all the companies. However, recently, the consolidation of the firm has been increasing than it was in the past times.

Furthermore, this brings to an applicable appraisal of financial firms showing their capability to endure the current trend of movement such as mergers and acquisition.

Financial institution can raise the method of activities in order to have improved revenue. The coming together of financial institutions can secure the rise in revenue and cutting down of expenses; this can be done by the elimination of unwanted subdivision in rural areas of this financial firm in the state such as unwanted branches. Selling or marketing of the financial institution products could secure huge revenue. However, as soon as a merger and acquisition are declared, if it's pubic a compelling amount to information is been assessable and the reaction goes to the stock about the merger and acquisition. The avenue of competition and innovation has imposed banks to improve on the performance in providing financial service required for quality purposes. An improvement in profitability can be as a result in banks raising the scale of operation to achieve the efficiency gains.

Risk reduction, cost waving and earning improvement are the likely component in telling the accomplished mergers of financial firm with price waving being the most crucial component for the financial sector. Some experts interpret that majority of the firms admit that diversification is a justified aim for acquisitions as a means of reduction in losses when there is economic meltdown. According to Stiroh (2002), using the United States data, there may be more substantial scale from larger banks size as a result of merger and acquisition. Most of the studies found out that mergers and acquisitions add up notably to the profits of the banking sector, except for Straub (2007), mergers and acquisitions have often failed to add significantly to the performance of the banking sector.

However, when banks participate in mergers and acquisitions the aim is to reduce the operating costs by cutting down branch and worker numbers, overhead in the aspect of combining information technology and risk management systems. Various studies

have empirically examined if mergers and acquisitions are solution to banks problems. Beitel et al (2003) found no gains directly due to mergers and acquisitions but David and Yener (2004) assert that mergers and acquisitions played a decisive role in the development of the banking sector as the merger of financial performance is a catalyst for the efficiency. The mergers of financial firms can bring fulfillment and other positive signs to the majority of the financial firms which participated by De-Nicolo (2003) and Caprion (1999). Generally other studies provide different clues and many fail to show a clear linkage between mergers, acquisitions and performance. The primary method of consolidation employed most financial institutions is mergers and acquisitions (M&A).

Banks also work on cross-border expansion to gain access to a large client base and also to diversify their income sources. Such type of increase does not give benefits from economies of scale because it does not include or add to the overlapping of financial services. Several debates also surround the risk behind the merger and acquisition deals. According to Sharma (2009), operating risk is highly involved in these types of deal owing to the fact that it is difficult to blend technical system, personal culture as well as practices with regards to compensation resulting from loss of customers and personnel. Risks are more in cross border deals in comparison to domestic deals. Because in cross border deal, financial institutions are faced with foreign exchange risk, accounting regulation and other forms of uncertainty.

Chapter 3

NIGERIAN BANKING SECTOR

The establishment of the British West Africa Bank, which was the first provincial in Nigeria in the era of 1892, was followed by African banking business, First Bank of Nigeria plc. In 1894 it remained in the system and was also called the British West African bank. Barclays Bank (1916) now summoned Union Bank of Nigeria plc. There were two foreign banks that were established in addition to the previous banks. As a result of loose regulation by banks from 1892 to 1952 was known as free banking era. Banks requirement and standards were not met by 25 banks that were earlier created in short notice – these banks are no longer in existence. The National Bank of Nigeria deployed in 1933; the African Continental deployed in 1945, Wema Banks and the Bank of the North deployed in 1945. These are only the four banks that survived out of the 25 banks. A law was passed into act ending the era of loose financial system in 1952. At this era only bank with proper license could practice or carry out banking activities for the very first time.

In July 1959 the central bank became fully positioned and in control with its laws guiding it. After the 1958 banking act, during 1969 amendment was raised to support the 1958 act which was ostensibly to block any leakages.

This made the number of banks to increase and the sector became a significant driver for the economic growth as well. Eight new financial banks were conceived between

1959 and 1962, but no fresh bank was conceived between 1962 and 1979 due to taut and slender financial restructures which encompassed implementation of sanctions successfully at boosting the smallest paid up monetary obligation for establishing fresh banks. However, banks plan for the establishment of new banks might have been destroyed by the 1967 to 1970 war that occurred. One of the most remarkable era and re-assessment advancement of banks was one which witness 21 banks in 1976 rise to 41 in 1986. As at the time of July 1986 after the establishment structural adjustment program (SAP) financial liberalization and financial de-regulation was put into place. As a result on declining the oil price in the 1980s structural adjustment program (SAP) was brought in the spot light to help identify and detect some failures in the nation and give forecast.

Banks play a very important role, the decree (BOFI) which can reflect the significant role banks play in the implementation of SAP and the Nigeria fiscal program recovery during 1986.The financial system witness tremendous rise in the number of banks at the period 1985 up till 1992. The system also faced its bad times in its past file in 1990s which resulted in more than 30 financial firms collapsed. What is known to be the most unwanted failure and crisis so far in the financial system was in the 1990s which resulted to the nonexistence of more than 30 banks as a result on liquidity.

Another dimension was introduced in Nigeria financial industry in 2004 by the banker's tribunal. During a particular time frame new set of banking rules were announced by the central bank governor. From two billion which was the least fund qualification needed was raised to 25 billion (One Hundred and Sixty-Five Million USD). The purpose of the financial amalgamation operations was to initiate tougher institution. Merger and acquisition came among existing banks which called for

shareholders capital in the financial sectors to participate in business transactions.

3.1 Stages of Financial Reform in Nigeria

The first phase of financial transformation in Nigeria was as a result of deregulation of the financial sector in 1986 followed by re-establishment of control and authority, which made banking subdivision to suffer an economic uncertainty. The third phase commenced in 1999 was as a result of civilian rule which lead to the de-regulation and liberalization. Equivalently this era brought about the retail banking and non-banking activities of which banks are now participating in the economy. According to Ogunleye, (2005) and Balogun, (2007), the last and the fourth phase of the transformation activities can be referred to as the consolidation which began in 2004 up till date.

3.2 Depositors' Confidence

In 1989 Nigeria, under productive supervision, ensured room for the introduction of the Nigerian Deposit Insurance Corporation for self-assurance and steadiness of the economy by Decree No.22 on June 15. It stands as a guideline for the CBN in terms of the policy fulfillment. The creation of NDIC was to prove the depositors' wrong by giving them assurance that their money was safe. The depositors' confidence was part of section 20 decree 22 in 1988 policy act. All the market and merchant banks are required to insure their deposits with NDIC. Also, there is assurance that depositors get their payments up to a maximum of 50,000 naira if there is any bank distress (NDIC, 1989).

3.3 Developing the Level of Financial System in Nigeria

The Nigerian federal government deployed the people's banks in 1989 so as to modify the financial system. The primary aim was to reach out to low wages earner such as artisans and craftsmen, so they could be giving loans to help run their

businesses. Instead of employing the conventional fundamental thoughts of giving loan with secondary source, which is the use of collateral they engage in work gathering and support in order for loan to be given to out privately. However, the borrowing issue to each individual is little. Community bank is characterized as a self-sustaining economic organization, belongs to and sustained by the community or an assembly of the group. The services carried out by community banks are more traditional in which they include approval of down payment and bundling of proceed of banking proceeds on behalf of paying clients and issuance of redeemable certificate of debt.

3.4 Nigerian Banking Regulatory Authorities

There are some sub-bodies that make up the monetary figure in Nigeria which are non-banking fiscal institution and the central bank which officially started work their role in July 1959 after the establishment in 1958. Monetary stability and fiscal surrounding stability is one of the main roles which the central bank plays in the economy, holding the economy reserve these are parts of its objective. The federal government's central bank acts as the lender of last resort for the banks. It is an independent body with regards to its function of business and frame work of regulating the economy at large including controlling the money sector by the act organized. Other institutions were established by the central bank in order to optimize the economy during the bad time and oversee the monetary aspect at large.

3.5 Federal Ministry of Finance

This is the body of government that deals with supervising, assisting and watching the federal revenues and expenditures alongside looking into the fiscal performance of the economy. It also team up with the central bank of Nigeria over the monetary issues. Federal ministry of finance role and function is aimed at the center of every financial

transaction and it stands as a mechanism that facilitates the trade and business between Nigeria and the other parts of the world.

3.6 Nigerian Deposit Insurance Corporation (NDIC)

The Nigerian Deposit Insurance Corporation was established under the decree of 1988 and commenced the operation in March 1989 in order to fortify the safety of the newly liberalized banking sector as directed by the Central Bank governor. The NDIC is a parastatal under the Nigerian ministry of Finance saddled with the responsibility of protecting the banking system from instability occasioned by runs and loss of depositor’s confidence. This body is protected by the ministry of finance in order to handle the problem that can lead to lose of depositors’ confidence. The main focus of NDIC is mainly on the solvency and deposit safety in banks.

3.7 The Federal Mortgage Bank of Nigeria (FMBN)

The Federal Mortgage Bank of Nigeria was formerly called Nigerian Building Society to incorporate some financial derivations before it was transformed to the current status. The main function of the FMBN is to provide banking and advisory services, and pursue research activities relating to housing. After the adoption of the housing policy in 1990, the FMBN was empowered to accredit and regulate primary mortgage institutions in Nigeria. The FMBN is subject to control the CBN; its financial function was separated and delegated to the federal mortgage finance while the main agency FMBN maintained its regulatory role.

Chapter 4

DATA TYPE AND VARIABLE DESCRIPTION

The purpose of this research is to justify and examine the fulfillment before and after the mergers and acquisition of banks using the total number of sixteen (16) banks around the time period of 1998 to 2011.

One of the dependent variable used in the determination process is called the endogenous variable. Grading agency and financial accounting were derived from banks' data base in order to carry out this study and the figures are labeled in billions naira.

4.1 Panel Data Analysis

The primary purpose of this research is to determine the determinant of the selected banks' performance in the pre and post-merger. Panel data analysis provides possibility of generating a more accurate prediction.

4.2 Independent Variable

An independent variable is a variable that the researcher has control over, what s/he can choose and manipulate. It is usually what the researcher thinks will affect the dependent variable.

Capital adequacy: This has to do with the dimension on which the decision is made on financial sector's power to meet its obligation. Bank ability is often tested to ensure it has the skill to approach its liability. It is calculated as total equity divided by total asset. Bank risk weighted asset is the prerequisite of the capital adequacy.

Banks with more capital adequacy must have a strong profile in order to be confirmed and certified. Capital adequacy means banks should have enough cash at hand in there volt in order to withstand the accidental loss. Capital means money and adequacy which means normal. Capital adequacy is the amount of capital relative to financial institution loans and other assets.

Asset quality: The Asset quality reflects the quantity of existing and potential credit risk associated with loans and investment portfolios. It is calculated as loan loss reserve divided by gross loan. A lower coefficient minimizes the possibility of the bank failure, while a high ratio of bank loan portfolio to asset signifies an exposure of the institution to counterparty the risk and possibly a weak bank charter value especially when the ratio of non-performing loans to total loans increases. Asset quality is the estimation of the quality of banks asset (principal loan and lease) as a measure by lenders credit standards.

Efficiency: Efficiency simply measures how costs are changing when compared to income. It's also a ratio between the operating expense and operating income. Efficiency does the right thing. If the efficiency ratio gets lower, it is good for the bank and its shareholders. These ratios are meaningful when compared to peers in the same industry and can identify businesses that are better managed relative to the others. Also, efficiency ratios are important because an improvement in the ratios usually translate to improved profitability.

Liquidity: Liquidity is the ability of an organization to meet its current financial obligations. In banking, adequate liquidity means being able to meet the needs of depositors wanting to withdraw funds and borrowers wanting to be assured that their credit or cash needs will be met. Liquidity is also measured in terms of debt capacity or borrowing capacity to meet short-term demands for funds. Liquidity excess is a

sign for poor patterns and consequently raises the firm uncertainty. It is evaluated as Cash over Total Asset. A study by Rose et al, (2005) suggest that bank witnesses liquidity surplus each time the liquidity provided outperforms the total liquidity demand at any period.

4.3 Dependent Variable

The performance and profitability is well presented by return on asset (ROA). Return on asset is a key ratio of profitability. The dependent variable which is in ratio is a clean impression for deploying return on equity (ROE). A dependent variable responds to the independent variable. It is called dependent because it "depends" on the independent variable. In a scientific experiment, one cannot have a dependent variable without an independent variable.

Return on asset: ROA gives an idea as to how the efficient management is at using its assets to generate the earnings. It is a controlled variable and in most cases they explain the variable that is used to test the banks' profitability. It is used to determine the possibility of return that a firm could have in order to attract new revenue from other financial sectors and it has a strong link with banks' profitability. It can be calculated as net income divided by the total asset. This percentage measures the profitability by expressing the efficiency of asset utilization. Return on asset is the fund one receives after making an investment. An indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings.

Return on equity: It tells an investor how much earning the firm gets back after its investment. It also shows how much asset does a firm have available to measure its earning and if a firm is doing very well it can be identified by its return on equity. According to Neceur and Gaied (2001) the asset of a bank can be utilized if its return

on equity is stable. Net income divided by the total equity is how it can be measured. Stable profitability signal of banks can be noticed in ROE. Return on equity tells common shareholders how effectually their money is being employed.

4.4 Methodology

For the purpose of this research, random effect regression analysis is adopted in presenting the analysis of the empirical results. The major reason for the use of fixed and random analysis is that it appears to be the best approach in panel analysis of which this study concentrates on. This also controls for 'omitted variable bias.' When compared to time series and cross section data, panel data gives more informative data, more variability less co-linearity among the variables, more degree of freedom and more efficiency. Also they are best fitted for the study of the dynamics of change in job turn over, labor mobility, effect of minimum wage, effect of mergers and acquisition of banks, unemployment, etc. In order to fully determine the period that is most favorable for the financial institution with regards to the accomplishment and fulfillment before and after the mergers panel was applied, taking in account that 1998 was the starting year, and 7 years before 2005. The Central Banks' effort in mergers and acquisition of banks in Nigeria has yielded fruit. Hausman test is deployed to confirm whether or not the unique error (μi) is correlated with (x). If independent variable is uncorrelated with individual heterogeneity this model will be accepted. The mergers in Nigeria can be featured by using many financial indicators. The independent variable indicator includes capital adequacy, asset quality liquidity and efficiency. The difference before and after the mergers and acquisition of firms in Nigeria is taken into account as a measure for fulfillment with the use of 7 years before and after the mergers activities.

Taking into account the data from 16 banks from 1998 to 2011, the alternative hypothesis is being deployed for the fixed model while the null hypothesis is deployed for random effect estimate for Hausman test to be carried out. H1 implies that controlled variable is in alliance with unique errors (μ) and Ho implies that control variable is not in alliance with unique error (μ)

4.5 Table 1.Variables and Description

Variables	Description
	Independent Variable
	Internal Factor
Capital Adequacy	Total Equity/ Total Asset
Asset Quality	Loan Loss Reserve/ Gross Loss
Liquidity	Net loan / Total Asset
Efficiency	Cost to income ratio
Dependent Variable	
Return on Equity	Net Income / Total Equity
Return on Asset	Net Income / Total Asset

Chapter 5

EMPIRICAL RESULT FROM PRE MERGERS AND ACQUISITION ERA

With the use of Stata software results of which are generated as regression output, and taking a look at the result of the Hausman test, the analysis only focused on the values estimate made available by random effect model.

Table 2. Pre Mergers Result for ROA

Dependent ROA	Coefficient	Prob value
Capital Adequacy	.164261	0.195
Asset quality	-.0953746	0.009
Liquidity	-.0288943	0.603
Efficiency	-.0579298	0.066
Constant	.0068403	0.861

Looking at the p values so far the pre-merger and acquisition era with regards to ROA Capital Adequacy and Liquidity are not statistically significant in explaining the changes in ROA in the pre-merger and acquisition era while the efficiency and asset quality which are less than 10%. They indicate that they have significant influence on the dependent variable ROA. According to the result of pre-merger with regards to the

determinant, the asset quality was a bit high (-.0953746) but after the merger it was lower (-.0555876) in absolute terms. This can be as a result of banks reducing their exposure to loan loss reserve or maybe as a result of strict supervision. If there is 1% increase in asset quality then ROA will decrease by (-.0953746). If there is 1% increase in liquidity then ROA will decrease by (-.0288943).Coefficient of determination overall is 0.1239, meaning that the variation in ROA can be explained by the variations in the independent variable of this study.

Table 3. Pre-Mergers Result for ROE

Dependent ROE	Coefficient	Prob values
Capital Adequacy	.2166276	0.620
Asset quality	-.5045661	0.000
Liquidity	-.2514821	0.148
Efficiency	-.5106587	0.001
Constant	.571893	0.003

On the other hand, the pre-merger and acquisition analysis result from ROE is 0.0000 which is less than 5% implying the model is significant for ROE, Asset quality, efficiency and constant all interpret that apart from capital adequacy and liquidity, every other variable is highly influenced by ROE which is the dependent variable.

Comparing pre and post merge period the efficiency coefficient was low (-.0579298) in absolute terms in the pre- merge period but after the merger in the post period it appeared lower (-.0356714) in absolute terms. This can be as a result of decrease in the cost which leads to decrease in the efficiency. Efficiency is a requisite for success in business. Evidence supporting mergers and acquisitions to achieve cost saving and efficiency gain is sparse (Kwan and Elsenbeis, 1999). They found that banking organization significantly increase their profit efficiency ranking after mergers.

Table 4. Post-Mergers Results for ROA

Dependent ROA	Coefficient	P values
Capital Adequacy	.0001422	0.998
Asset quality	-.0555876	0.174
Liquidity	-7.484494	0.000
Efficiency	-.0356714	0.000
Constant	.0921162	0.013

For the post mergers and acquisition of banks in Nigeria the ROA show that the model is best fitted by 0.0000 which is less than 5% and coefficient of determination is overall 0.2305, and the Capital Adequacy= 0.998, Asset quality=0.174. Only these two variables that have no significant effect on the model, and cannot explain the changes in the model, the rest have effect on the dependent variable of the study. ROA efficiency and liquidity shows negative relationship. However, capital adequacy and asset quality cannot statistically explain the changes in ROA.

If there is one 1% increase in capital adequacy then ROA will grow by 0.0001422. If there is 1% increase in asset quality then ROA will decrease by (-.0555876). If there is 1% increase in liquidity then ROA will decrease by (-7.484494). If there is 1% increase in efficiency then ROA will decrease (-.0356714).

Table 5. Post-Merger Result for ROE

Dependent ROE	Coefficient	Prob
Capital adequacy	.1959286	0.659
Asset quality	-1.238945	0.194
Liquidity	-25.68498	0.309
Efficiency	-.1111049	0.167
Constant	.920469	0.150

The result of ROE indicates 0.1584, showing that the model is not fitted in this analysis, and the coefficient of determination is 0.1463, which means that variation in ROE can be explained by the variation in the independent variables. However, constant 0.150 means that the variable is affected symbolically by ROE, indicating that these variables can explain the changes in ROE statistically for post era. None of these variables in Table 5.4 can explain the changes in ROE in post-merger and acquisition time span.

ROA Pre and Post

According to ROA, the result of pre-post-merger with regards to the determinant, the asset quality was a bit high (-.0953746) in pre-merger but after the merger it was lower (-.0555876) in absolute terms. This can be as a result of banks reducing their exposure to loan loss reserve or maybe as a result of strict supervision. Comparing pre and post merge period the efficiency coefficient was low (-.0579298) in absolute terms in the pre- merge period but after the merger in the post period it appeared lower (-.0356714) in absolute terms. This can be as a result of the decrease in the cost which leads to decrease in the efficiency. In addition to the decline in the efficiency, the cause can be a result of the merger of some banks. This action can lead to a decline in the cost. As banks merge together they aim to decrease their operating expense. An economy of scale is present in efficiency because it is the reduction in per unit cost due to the increased scale of operation. According to Sharma (2009), economies of *s*cale are one of the main arguments behind Mergers and Acquisitions. The reason is that banks get involved in M&A's to cut down the operating costs by reducing the branch networks and staff overheads and also by integration of information technology and risk management systems. In order to calculate the efficiency cost divided by income, banks want to save their operating cost by merging assets quality and efficiency where significant.

There was a decrease in the capital adequacy in post period (0.001) when compared to pre period (.164261). This can be as a result in decline in the total equity of some banks that resulted to a decline in the capital adequacy. To support the reason why there is a decline in capital adequacy; if the bank was to liquidate by selling off all its asset and paying all its debts, whatever is left over would be stockholders equity and

if there was a huge amount of debt there would be little to account for equity. In this case the merging banks had to pay off a lot of debts and liquidate their asset that resulted to a decline in total equity.

The liquidity in post merge period was higher (-7.484494) in absolute terms when compared to pre-merger era (-.0288943). The reason can be as a result of banks increasing their current assets as they merge together that lead to rise in liquidity. Generally, higher numbers are better, implying that banks have a higher amount current asset when compared to current liability and should easily be able to pay off their short-term debt. Weaker liquidity ratio may be due to aggressive expansion policy. As always it is prudent not to rely too heavily on a single set of ratio. ROA gives an idea as to how efficient management is at using its assets to generate the earnings.

ROE Pre and Post

However, after comparing the post and pre in terms of ROE, it can be said that there is a huge change when the liquidity is viewed. In pre-merger liquidity was (-.2514821) which was low but in post period liquidity was (-25.68498). It can be seen that profitability in terms of total equity has much more negative impact. For asset quality in pre-merger it was (-.5045661) which is low but when compared with post-merger it was (-1.238945) which is worst and higher than the previous figure. In addition, in terms of ROE for asset quality merging of banks did not help because the asset quality got worse than it was in pre-merger era.

For pre-merger period the efficiency was (-.5106587) which is low in absolute terms but when compared with post-merger efficiency was (-.11111049) which is lower. The conclusion is that efficiency improved in post-merger relatively to pre-merger.

Capital adequacy for pre-merger was (.2166276) which high and capital adequacy for post-merger was (.1959286) which is slightly lower. To conclude, there are no much changes between pre and post-merger for capital adequacy. So far after comparing ROE it is clear that merging of banks did not help to improve all areas except some. Stable profitability signal of banks can be seen in ROE but here it can be noticed that profitability signal was not stable.

To analyze the pre-merger and post era of banks in Nigeria the adequacy of the model is checked through F-test. This is to confirm that the coefficient is statistically different from zero. The STATA output ROE show that Prob> chi 2 is 0.0000 which is less than 1% which indicates that the model of the study is statistically significant. The R-sq shows an overall of 0.1239.

Chapter 6

CONCLUSION

This research analyzes the performance of Nigerian banks through the time span 1998-2011 engaging in the random effect model. Furthermore, it compares their performance in the pre and post mergers period. The result shows that post-merger era for ROA was more financially improved than post-merger period ROE after comparing the pre and post.

The merging of banks can cause the expected future profits to be increased in one of the following ways; increasing the expected revenue or by reducing the expected costs. The Nigerian banking sector has gained from the post mergers period of banks. These are as a result of banking associations often depend on simple methods and partial ratios in their analysis, as well as policy makers. Policies and regulations should take the endogeneity issue into account, being the simultaneity between banks' cost and variants. According to Adegbaju and Olokoyo (2008) backed by this finding mainly the ROE of post-merger and acquisition issue where the coefficient of the independent variables of the study are negative, it has shown that it is not necessarily all the time that merger and acquisition transforms into advance economic performance of banks and it is simply finance that create good performance of banks. The mergers and acquisition exercise that took place in Nigeria has caused boom to

the growth of commerce operations both in the localized part and other region of the commercial economy globally.

Result of post-merger analysis of the Nigerian banks' ROA at 50% says that 0.0000 which implies that the model of the study is adequate and fitting. Efficiency is 0.000 liquidity=0.000 interpreting that the independent should have an influence on the controlled variable since they are less than 5%. There is a negative relationship due to the changes in ROA between 1998 and 2011. However, capital adequacy and asset quality cannot statistically explain the changes in ROA for this era.

The result for ROE indicates that 0.1584 shows the estimation is insignificant in this analysis. ROE indicates that this variable cannot explain the changes in ROE statistically for post era. Interpretation for the coefficient of determination variation in the dependent variable can be explained by the variations in the independent variable. It implies that these variables cannot explain any changes in ROE statistically, especially for post-merger and acquisition era.

To analyze the pre and post-merger of the Nigerian banks, the adequacy of the model is checked through the F-static. Coefficients are statistically significant. The STATA output for ROA is less than 5%, hence the model is adequate. Also, on the other hand, for asset quality is 0.009 and efficiency is 0.066, it indicates that the above variables have significant effect on ROA in the pre-merger and acquisition era.

However, capital adequacy and liquidity are not statistically significant in explaining the changes in ROA in the pre-merger and acquisition era. Therefore, both asset quality and

efficiency have a negative effect on ROE, while capital adequacy and liquidity are not significant in explaining the changes in ROE.

However, the pre-merger and acquisition analysis result from ROE is less than 5%, saying that the estimation is significant. Asset quality efficiency is 0.001 and constant is 0.003, showing that every other independent variable is affected by the controlled variable except two.

Finally, the pre-merger and acquisition and post-merger and acquisition era are empirically tested respectively. It is observed that the capital adequacy is statistically insignificant in both periods as it cannot explain the changes in both ROA and ROE. Also, none of the variables can explain the changes in ROE, especially in the post consolidation era.

6.1 Recommendation

This study suggests that there has been an improved performance on the part of some selected commercial banks.

However, it is important for mega banks to create branches of their financial firms in local unit of the countryside in order to safeguard the rightful gateway to loans or funds in operations. Government should make sure that banks pay good attention to ratio such as the capital adequacy because applying minimum capital adequacy ratios serves to protect the depositors and promote the stability and efficiency of the financial system. It also gives some protection to depositors. In the event of a winding-up, depositors' funds rank in priority before capital, so depositors might only lose money if the bank makes a loss which exceeds the amount of capital it has.

Higher the capital adequacy ratios mean higher levels of protection available to depositors.

Man power training and re-training is a must for all the banks. Investment in information technology acquisition deployment and training to reflect a commitment to leverage new technology are for the benefit of every sophisticated client that are getting wiser on daily basis in Nigeria need not be over-emphasized. This paper recommends that banks should pay close attention to the asset quality and liquidity (ROE). These two areas call for attention not only because of how important it signifies but the finding indicated that the merging of banks did not help to improve these areas. So, the researcher suggests other alternatives should be considered.

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