



## Mergers and Acquisition: The Solution to the Problem of Ineffective Financial Intermediation in the Nigerian Banking System

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### Abstract

The paper examined the effect of merger and acquisition on the efficiency of financial intermediation in the Nigerian banking system. Nigerian banking sector needs reforms that will lead to a more efficient stronger right for creditor, stronger accounting standard and practices, and a legal and regulatory framework that facilitates the exchange of information about borrowers. Reforms to improve both the level and the efficiency of financial intermediation in Nigeria banks should high on Nigerian policymakers' agendas, because of the financial sector importance economic growth. This means that Nigeria must also improve the legal and regulation environment in which its financial institutions operates. The study aimed at evaluating the role of mergers and acquisition on bank liquidity and profitability in the Nigerian banking system. The study also aimed at determining the effects of mergers and acquisitions on capital adequacy of banks in Nigeria. Secondary data were used as a means of data collection. Regression analysis was used to analyse the results of the data collected. It was revealed that the relationship between deposit rate and capitalization in effect of merger and acquisition equation I was statistical significant. Secondly, the relationship between lending rate and capitalization in the effect of merger and acquisition equation II was not statistical significant. The study therefore, recommends that there is need to strengthen the overall financial system within which the banking sector operates. Secondly, subsequent policies are recommended to address firms and macro-economic fundamentals in order to drive down the high wedge between lending and deposit rates to further strengthen the efficiency of financial intermediation in the banking industry.

**Keywords:** Merger; Acquisition; Financial Intermediation; Consolidation; Banking.

### 1 Introduction

In any organization where the business is not flourishing and there are indications of failure, one of the options available to the owner is to re-organize the business so as to close the gaps and streamline avenues for improvement. Re-organize therefore means re-engineering the business for a better performance in nearest future. According to recapitalization policy pronounced by the Central Bank of Nigeria (CBN), the investors decided to consolidate their group activities into one entity in order to meet up with their subsidiary banks.

According to professor Soludo (Former CBN Governor) in his speech (2004) Merger and acquisition should be taken seriously as an instrument for enhancing banking efficiency, size and developmental roles. The last few years have witnessed the creation of the world banking group through mergers and acquisition. The trend has been influenced by factors such as prospect of cost-saving due to economies of scale as well as more efficient allocation of resources,

enhanced efficiency in resource allocation and risk reduction arising from improved management. Mergers and acquisitions especially in the banking industry is now a global phenomenon.

Merger and acquisition have been identified as veritable strategic options for enhancing the efficiency of local business globally. This formed part of the communiqué issued at the end of the seminar organized by the Financial Institution Training Center with the theme “Gaining Competitive Advantage: Mergers and Acquisitions Strategic Option”

The participant observed that merger and acquisition were not new in Nigeria as there had been more than 20 successful cases of mergers and acquisitions in the last twelve (12) years, which were motivated from outside the country’s borders. In light of the foregoing, the motives behind any merger and acquisition are given as follows:

- The need to maximize the opportunities available to a company by replacing its inefficient or incomplete management.
- The need to achieve economies of scale resulting in the combined output of both enterprises.
- The need of the part of management to achieve growth market power for the company.

The earliest known merger experience in Nigeria was between West Africa Soap Company Limited and Van Der Berg limited to form lever Berg Limited in 1926. However, not much merger activities were recorded therefore until the first phase of the indigenization programmer in the 1970s which entails the divestment by foreign enterprises or portion of their equity to Nigeria interest.

Most mergers and acquisitions of this era were “in house” arrangement to be found in(UAC) United African Company Nigeria group in which companies that had previously operated independently were brought together as division of (UAC) United of Africa company Nigeria Plc. The first merger between two public quoted company were recorded in 1983. This was the merger between (A.G) A vis Global Leventis stories.

The practices of mergers and acquisitions was not being constrained by regulatory environment but mainly by inherent attitudinal resistance to business mergers, shareholders and employers that had adopted this economic measure as help to recorded great turnover and have become giant and Colossians in economic activity in Nigeria, as shall be revealed later on his study. The research intends to find out the effects of merger and acquisition of financial institution on the Nigeria economy through an empirical investigation.

Nigeria’s Banks and business organizations are recently seeing consolidation (Merger and acquisitions) as the means of recapitalizing. The current trend of compelling all commercial banks to raise their capital base from #2 billion to 25 billion naira on or before 31st December 2005 has sent some of these banks on the move to consider merger and acquisition as a survival strategy.

Despite the merger and acquisitions of banks in the country, some of the merged banks are still facing those challenges that lead to the 2005 consolidation. These challenges include: poor risk management, poor corporate governance practices, over reliance on public sector funds, weak infrastructure, insufficient regulation and reporting, weak credit assessment skills, lack of professionalism and skills gap, which have resulted to liquidity in the sector thereby causing more banks distressed that is characterized by job losses causing untold hardship in the country after the consolidation.

Also, it was thought that merger and acquisition (a process of consolidation) of Nigerian commercial Banks will help to solve the problem of poor financial intermediation in Nigeria Banks but the fact still remain that the problem has not been able to solve adequately.

It is on the basis of the above that this research is aimed to determine the reasons why most companies fall to achieve capital adequate despite the practice of mergers and acquisitions and how can the difficulties in achieving capital adequacy be overcome.

The main objective of the study is to examine the effect of merger and acquisition on efficiency of Bank Financial Intermediation in Nigeria.

Other objectives are:

- To examine the role of mergers and acquisition on bank liquidity in Nigeria.
- To empirically determine if effective and efficient mergers and acquisitions in the banking sector increased bank profitability.
- To determine the effects of mergers and acquisitions on capital adequacy of banks in Nigeria.

The paper will enlighten the general public on the impact of merger and acquisition on capital adequacy of banks in Nigeria and also the challenges of banks consolidation. It establishes the fact that merger and acquisition is a veritable means of fostering bank growth.

The paper will consider the effect of merger and acquisition on the banking sector which is aimed at strengthening and ensuring a diversified, strong and reliable banking also enlighten investors that the state of the Nigerian bank has undergone a lot of changes through merger and acquisition and hence, a sure ground for profitable investment. The study also contributes to the body of knowledge in the related areas of study for future researcher.

### **Hypothesis A**

H0: There is no significant relationship between deposit rate and capitalization of commercial banks.

H1: There is significant relationship between deposit rate and capitalization of commercial banks.

### **Hypothesis B**

H0: There is no significant relationship between lending rate and capitalization of commercial banks.

H1: There is significant relationship between lending rate and capitalization of commercial banks.

## **2 Literature Review**

### **2.1 Conceptual Definitions**

Merger and Acquisition literature is laden with usage of terms like merger, acquisition, takeover and amalgamation. Many authors use this term and classify them differently, a few arduously distinguish between each, whereas others use them synonymously. For example, Weston, Chung and Hoag (1996) recognize two forms of combinations- mergers and acquisitions (tender offers). Machiraju (2003) on the other hand uses merger as a broader term and considers acquisitions and takeovers as two of its type. Other works in the area classify combinations as mergers, acquisitions (takeovers) and hostile takeovers (tender offers are considered as one of the modus operandi for hostile takeovers). In the following paragraphs, we try to study and understand these terms with help of definitions provided by various authors.

#### **2.1.1 Meaning of Mergers**

Investopedia.com defines merger as, 'a merger involves the mutual decision of two companies to combine and become one entity; it can be seen as a decision made by two "equals". The combined business, through structural and operational advantages secured by the merger, can cut costs and increase profits, boosting shareholder values for both groups of shareholders. A typical merger, in other words, involves two relatively equal companies, which combine to become one legal entity with the goal of producing a company that is worth more than the sum of its parts. In a merger of two corporations, the shareholders usually have their shares in the old company exchanged for an equal number of shares in the merged entity.' At answer.com, merger is defined as, 'the statutory combination of two or more corporations in which one of the corporations survives and the other corporations cease to exist'. According to Machiraju (2003: 1), 'merger is a broad term and it denotes the combination of two or more companies in such a way that only one survives while the other is dissolved. A merger is an investment in a future growth opportunity. In merger proposals plant is ready and market acceptance, clear and well established. When two companies differ significantly in size, they usually merge'. Weston, Chung and Hoag (1996:4) define merger as, 'any transaction that forms one economic unit from two or more previous ones'. Mc Carthy (1963: 16) defines merger as, 'the combination of two or more business entities into a single economic enterprise. To be more exact, however, the only type of business combinations that should be designated as mergers are statutory mergers or consolidations, i.e., when one or more companies are merged into another or into a new corporation in conformity with the statutes dealing with such transactions in the states of their incorporation'. According to De Pamphilis (2001:5), 'mergers can be described from cease to exist'. According to Machiraju (2003: 1), 'merger is a broad term and it denotes the combination of two or more companies in such a way that only one survives while the other is dissolved. A merger is an investment in a future growth opportunity. In merger proposals plant is ready and market acceptance, clear and well established. When two companies differ significantly in size, they usually merge'. Weston, Chung and Hoag (1996:4) define merger as, 'any transaction that forms one economic unit from two or more previous ones'.

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### 2.1.2 Meaning of Acquisitions

Investopedia.com defines acquisition as, 'a takeover, or acquisition, is characterized by the purchase of a smaller company by a much larger one. This combination of "unequal" can produce the same benefits as a merger, but it does not necessarily have to be a mutual decision. A larger company can initiate a hostile takeover of a smallest firm, which essentially amounts to buying the company in the face of resistance from the smaller company's management. Unlike in a merger, in an acquisition, the acquiring firm usually offers a cash price per share to the target firm's shareholders or the acquiring firm's shares to the shareholders of the target firm according to a specified conversion ratio. Either way, the purchasing company essentially finances the purchase of the target company, buying it outright for its shareholders'. At answer.com, acquisition is defined as, 'the act of one corporation acquiring a controlling interest in another corporation'. According to Machiraju (2003:2), 'the traditional acquisition is the negotiated acquisition in which a willing buyer and willing seller negotiate the terms under which an acquisition or merger occurs... Acquisition refers to a situation where one firm acquires another and the latter ceases to exist... A firm that attempts to acquire or merge with another company is called an acquiring company. A target company is a firm that is being solicited by the acquiring company. The assets of the dissolved firm would be owned by the acquiring company. The shareholders of the acquired company are paid either cash or given shares in acquiring company'. Mc Carthy (1963: 16) defines acquisition as, 'a number of so-called mergers involving exchanges of capital stocks legally are acquisitions, particularly where there are large number of shareholders involved. In such non-merger cases, one company "acquires" the voting stock of another solely in exchange of its voting stock. Acquisitions, in a legal sense, may also be effected for cash or cash equivalent, such as debt securities'. According to De Pamphilis (2001:5), 'an acquisition occurs when one company takes a controlling stake in another firm, a legal subsidiary of another firm, or selected assets of another firm such as a manufacturing facility'.

### 2.1.3 Meaning of Takeover

Many authors do not distinguish between takeovers and acquisitions. Machiraju (2003: 2); however, distinguishes between acquisitions and takeovers. He defines takeovers as, 'a market route for the acquisition of a company. If management of a prospective selling company is unwilling to negotiate a transaction with a prospective buyer, the buyer attempts to accomplish the acquisition by a takeover bid, offering to buy shares of the seller directly from the shareholders of the seller'.

### 2.1.4 Meaning of Tender Offer

Weston, Chung and Hoag (1996:4) say, 'in a tender offer, one party- generally a corporation seeking a controlling stake in another corporation-ask the stockholders of the firm it is seeking to control to submit, or tender, their shares of stock in the firm'.

### 2.1.5 Meaning of Amalgamation

Machiraju (2003: 2) defines amalgamation as, 'the blending of two or more companies into one, the shareholders of each blending company becoming substantially the shareholders of other company which holds blended companies'. The Institute of Chartered Accountants of India (ICAI) uses amalgamations as a broad term to describe two types of combinations. According to accounting standard 14 of ICAI amalgamations fall into two broad categories. In the first category are those amalgamations where there is a genuine pooling not merely of the assets and liabilities of the amalgamating companies but also of the shareholders' interests and of the businesses of these companies. Such amalgamations are amalgamations which are in the nature of 'merger' and the accounting treatment of such amalgamations should ensure that the resultant figures of assets, liabilities, capital and reserves more or less represent the sum of the relevant figures of the amalgamating companies.

In the second category are those amalgamations which are in effect a mode by which one company acquires another company and, as a consequence, the shareholders of the company which is acquired normally do not continue to have a proportionate share in the equity of the combined company, or the business of the company which is acquired is not intended to be continued. Such amalgamations are amalgamations in the nature of 'purchase'. Wikipedia provides an interesting distinction between mergers and acquisitions, 'although they are often uttered in the same breath and used as though they were synonymous, the terms merger and acquisition mean slightly different things. When one company takes over another and clearly establishes itself as the new owner, the purchase is called an acquisition. From a legal point of view, the target company ceases to exist, the buyer 'swallows' the business and the buyer's stock continues to be traded. In the pure sense of the term, a merger happens when two firms, often of about the same size, agree to go forward as a single new company rather than remain separately owned and operated. This kind of action is more precisely referred to as a 'merger of equals'. Both companies' stocks are surrendered and new company stock is issued in its place. For example, both Daimler-Benz and Chrysler ceased to exist when the two firms merged, and a new company, DaimlerChrysler, was created. In practice, however, actual mergers of equals don't happen very often. Usually, one company will buy another and, as part of the deal's terms, simply allow the acquired firm to proclaim that the action is a merger of equals, even if it is technically an acquisition. Being bought out often carries negative connotations, therefore,

by describing the deal euphemistically as a merger, deal makers and top managers try to make the takeover more palatable’.

## 2.2 Reasons for Mergers

There are many reasons for banks wanting to acquire other banks. These reasons include the pursuit of a growth strategy, the defence of hostile action from another would-be acquirer, and financial opportunities. However, the commonest reason is that the merger will result in substantial trade advantage or greater profits than the combined profits of the two banks working separately. There is also the element of synergy. For instance, laying out the reason for the merger between United Bank for Africa Plc and Standard Trust Bank Plc, the Chairman of United Bank for Africa Plc stated as follows “The primary objective of the merger is to create the No. 1 bank in West Africa and one of the largest Banks in sub Saharan Africa with a formidable asset base, offering a full spectrum of banking services from basic products and services for the low income personal market to customized solutions for the commercial and corporate market. The combined entity upon completion of the merger will have total assets of NGN365 Billion, over 360 branches spread across all the states of the country and a market Leadership position within the sub-regional banking industry.

A distinction needs to be made between companies that seek acquisitions to add value to their business by achieving a better rate of growth, and those that identify takeover targets where they can capture and exploit the value that already exists in the business, without necessarily creating more growth. There is a distinction between mergers for commercial or strategic reasons, and mergers for investment or management reasons. Corporate raiders primarily are concerned with the potential financial benefits of takeovers. They look for undervalued companies to buy cheaply, and unlock the value quickly, perhaps by breaking up the acquired bank into smaller divisions that can be resold at a profit. More generally, motivation for takeovers and mergers may arise from the fact that cost of production would be less in a larger entity combined with enlarged operational capacity and reduction of duplications (the economies of scale). Mergers and acquisitions may enable a bank acquire a competitor which poses substantial threat to it.

### Other reasons are:

**Economies of Scale:** This refers to the fact that the combined bank can often reduce duplicate units or operations, lowering the costs of the bank relative to the same revenue stream, thus increasing profit. In the United Bank for Africa Plc merger, the Scheme cited economies of scale as benefit, when it stated thus: the combined institution will create economies of scale that will result in a reduction in costs and the utilization of the synergies between the two institutions to streamline the operations of the post –merger UBA.

**Increased Revenues or Increased Market Share:** This motive assumes that the bank will be absorbing a major competitor and thus increase its power (by capturing increased market share) to set prices. This was laid out as a driver in the UBA merge through the merger, the combined bank will be better able to compete with institutions within Nigeria, the Sub-Saharan Africa region and internationally, thereby increasing market share, surpassing the competition and consequently increasing gross revenue.

**Cross Selling:** For example, a bank buying a stock broker could then sell its banking products to the stock broker's customers, while the broker can sign up the bank's customers for brokerage accounts, or a manufacturer can acquire and sell complementary products.

**Synergy:** Better use of complementary resources. Excluding any synergies resulting from the merger, the total post-merger value of the two firms is equal to the pre-merger value. However, the post-merger value of each individual firm likely will be different from the pre-merger value because the exchange ratio of the shares probably will not exactly reflect the firms' values with respect to one another. The exchange ratio is often skewed because the target firm's shareholders are paid a premium for their shares. Synergy takes the form of revenue enhancement and cost savings. When two companies in the same industry merge, such as two banks, combined revenue tends to decline to the extent that the businesses overlap in the same market and some customers become alienated. To calculate the minimum value of synergies required so that the acquiring firm's shareholders do not lose value, an equation can be written to set the post-merger share price equal to the pre-merger share price of the acquiring firm as follows:

**Pre-Merger Value of Both Firms Synergies + Post-Merger Number of Shares = Pre-Merger Shares Price.**

The above equation then can be solved for the value of the minimum required synergies.

**Taxes:** A profitable company can buy a loss maker to use the target's loss as their advantage by reducing their tax liability. In the United States and many other countries, rules are in place to limit the ability of profitable companies to "shop" for loss-making companies, limiting the tax motive of an acquiring company. -Geographical or other diversification: This is designed to smooth the earnings results of a company, which over a long term, smoothens the share price of a company, giving conservative investors more confidence in investing in the company. However, this does not always deliver value to shareholders (see below). This was also cited as one of the drivers of the merger of United Bank for Africa Plc – the combined institution will facilitate geographical expansion into markets where we had

not previously had a presence. As a result, the combined bank will be able to decrease total risk, increase product sales and thus increase overall gross revenue.

**Resource Transfer:** Resources are unevenly distributed across banks and the interaction of target and acquiring bank resources can create value through either overcoming information asymmetry or by combining scarce resources increased market share which can increase market power: In an oligopoly, increased market share generally allows companies to raise prices.

### 2.3 Types of Merger

Mergers and acquisitions are categorized into four major types on the basis of product and market in which the acquirer and acquired company operate before the merger.

**Horizontal Merger:** Involves two firms operating and competing in the same kind of business activity and geographical market. Example: Acquisition and merger of Times Bank by/with HDFC Bank.

**Vertical Merger:** Integrates the operations of a supplier and a customer. In a backward vertical merger, the customer acquires the supplier. Example: RPG Group's acquisition of Harrison Malayalam gave it control over rubber, a major input for another group company Ceat, whereas in a forward merger the supplier acquires the customer. Example: Arvind Mill's (denim fabric manufacturer) acquisition of Quest Apparels (manufacturer's of denim jeans).

**Concentric Merger:** A market/technology extension merger takes place between two companies in a similar field whose sales do not overlap but may expand the acquiring firm's geographical or product market owing to related market/technology. Example: Acquisition of Kissan Foods by HLL.

**Conglomerate Merger:** Occurs between firms engaged in unrelated types of business activities. Basic purpose of amalgamation is utilization of financial resources, risk diversification and also a synergy of managerial functions. Example: Torrent group's acquisition of Ahmedabad Electricity Company.

### 2.3 Importance Of Mergers and Acquisition

There are various motives for acquisitions and mergers. These extend from economies of scale to managerial motives. Here an attempt is made to evaluate some of these reasons.

**Differential Efficiency:** This theory stresses on differential efficiencies of different management of different companies. Manne (1965) highlights the existence of a positive correlation between corporate managerial efficiency and the market price of shares of that company. If a company is poorly managed the market price of the shares of that company falls as compared to the market price of the shares of other companies in the same industry. This difference in share price of companies, indicates the potential capital gain that can accrue if the management of the company passed into the hands of a more efficient management. The company in question becomes an attractive takeover target for those who believe that they can manage the company more efficiently. Firms operating in similar business are 2more likely to be acquirers since they would better possess the ability to detect under-performance and will have the know-how to turnaround the company.

**Inefficient Management:** This theory is related to the differential efficiency theory. Takeover is seen as an effort by the shareholders of the acquired company to discipline the management of the company. Managers often have problem in abandoning their old strategies, even when these strategies do not contribute to the growth of the company. When the need to restructure is overlooked by the management, the capital markets through the market for corporate control come to rescue. The shareholders of the target company through the takeover market pass on the control to the more efficient management. The price paid to the shareholders has to be at a premium over current market price (Jensen and Ruback, 1983) to solicit them to sell their shares.

**Operating Synergy:** can be achieved through horizontal, vertical and conglomerate mergers. This theory assumes that economies of scale exist in the industry and prior to a merger, the firms are operating at levels of activity that fall short of achieving the potentials for economies of scale. There are four kinds of synergies: cost, revenue and market power and intangibles. Cost synergies are again broken down into fixed cost and variable cost synergies. Fixed cost synergies like sharing central services such as; accounting and finance, the office, executive and higher management, legal, sales promotion and advertisement etc can substantially reduce overhead costs. Variable cost reduction is associated with increased purchasing power and productivity. Revenues synergies are associated with cross-selling products or services through complementary sales organizations or distribution channels that sell different geographic regions, customer groups or technologies. Intangibles include brand name extensions and sharing of know how. This kind of synergy is realized by transferring of these intangible capabilities from one firm to another.

**Pure Diversification:** Unlike the stakeholders of a company who reduce their diversifiable risk by holding a portfolio of well-diversified scripts, managers' income from employment constitutes a major portion of their total income. Hence risk attached with a manager's income is to a large extent a function of firm's performance. Managers invest heavily in

organization capital during their tenure with the firm. A major part of this capital may be firm specific, increasing the employment risk of the managers. Managers can thus be expected to diversify their risk by engaging in conglomerate mergers (Amihud and Lev, 1981). Similarly a firm engaged in manufacturing/marketing of a single product, which is in the maturity or decline phase of its life cycle, might like to invest the cash flows into growing businesses. The learning by employees has been developed over time. This learning may also be firm specific. It makes sense to employ this organization capital in growth businesses instead of letting them get destroyed with the withered business. Market synergies are discussed in the section on market power.

**Agency Problems:** On one hand literature on mergers and acquisitions points out that corporate takeovers are used as disciplining mechanism by the shareholders of the acquired firm, on the other hand authors also consider takeovers as manifestation of the agency problem. Ignoring the welfare of its shareholders, the management of acquiring company makes value-eroding acquisitions to increase the size of their company and thereby increasing their compensation. The relationship between size and compensation has been signalled by Murphy (1985). Roll (1986) points out that the payment of excess bid premia in a takeover by the management may be the result of hubris. Bids are made when valuation of the target firm by the acquiring firm exceeds the market price of the firm. The bids are abandoned when the valuation is lower than that of the market price of the firm. If however there are no gains in the acquisition, then the theory of hubris says that managers do not abandon these bids because of positive errors in valuation i.e. the overbearing presumption of the acquiring managers is that their valuation is right. Jensen (1986) uses the free cash flow hypothesis to explain takeover activity in certain cases. When a firm generates cash flows and does not have enough projects with a positive net present value, it is prudent to pay the additional cash to the shareholders. This payout of cash is detrimental to the interests of managers, because it reduces the resources under the manager's control and thereby diminishes their power. The management will also have to go through monitoring of the capital requirements when for future need of funds they have to go back to capital markets to raise new resources. Managers have incentives to grow their firm beyond an optimal size (as pointed above). The reward to middle managers through promotions also generates a bias towards growth to supply the new positions that such promotion based rewards system may require. Acquisitions are one way for the manager to spend excess cash instead of paying it to the shareholders. Therefore managers of firms with free cash are more likely to undertake low benefit or value destroying acquisitions.

## 2.5 Financial Intermediation

So, we are making important progress in our march towards heaven and what happens? Is financial intermediation fading away? One might think so from the forces shaping the current financial environment: deregulation and liberalization, communication, internationalization. But what is actually happening in the real world? Do we really witness the demise of the financial institutions? Are the intermediaries about to vanish from planet Earth? On the contrary, their economic importance is higher than ever and appears to be increasing. This is the case even during the 1990s when markets became almost fully liberalized and when communication on a global scale made a real and almost complete breakthrough. Financial intermediaries tend to play a substantial and increasing role in the current economy. Furthermore, Demirgüç-Kunt and Levine (1999) among others, conclude that claims of deposit money banks and of other financial institutions on the private sector have steadily increased as a percentage of GDP in a large number of countries (circa 150), rich and poor, between the 1960s and 1990s. The pace of increase is not declining in the 1990s.

## 2.6 Benefit of Merger and Acquisition:

The very first benefit of M&A is synergy that offers a surplus power that enables enhanced performance and cost efficiency. When two or more companies get together and are supported by each other, the resulting business is sure to gain tremendous profit in terms of financial gains and work performance.

Cost efficiency is another beneficial aspect of merger and acquisition. This is because any kind of merger actually improves the purchasing power as there is more negotiation with bulk orders. Apart from that staff reduction also helps a great deal in cutting cost and increasing profit margins of the company. Apart from this increase in volume of production results in reduced cost of production per unit that eventually leads to raised economies of scale.

With a merger it is easy to maintain the competitive edge because there are many issues and strategies that can be well understood and acquired by combining the resources and talents of two or more companies.

A combination of two companies or two businesses certainly enhances and strengthens the business network by improving market reach. This offers new sales opportunities and new areas to explore the possibility of their business.

With all these benefits, a merger and acquisition deal increases the market power of the company which in turn limits the severity of the tough market competition. This enables the merged firm to take advantage of hi-tech technological advancement against obsolescence and price wars.

## 2.7 Legal Requirement for Merger and Acquisition in Nigeria

There are various stages, under Nigerian Law, that a merger or acquisition has to pass through. They include:

- The intending companies are required, either alone or together, to apply to a Federal High Court, who in turn orders separate meetings of the intending companies, to approve the proposed merger or acquisition (the scheme);
- The members of each company, comprising three quarters in value of the shares of each company, are required to consent by resolution to the scheme;
- The above consent is then required to be referred to the Securities and Exchange Commission (SEC) for approval;
- On SEC giving its approval, the parties or one of them is required to apply to the Federal High Court who must sanction the scheme;
- The sanction of the Federal High Court must then be forwarded to the Corporate Affairs Commission (CAC) within seven (7) days of the Order of the Federal High Court.
- Also, a notice of the Order of the Federal High Court must be published in two government gazettes and in at least one National Newspaper.

The above stages are as provided for in Section 591 of the Companies & Allied Matters Act, 1990 (“CAMA”). (Ehijeagbon O.O, Jan, 2004).

## 2.8 Procedures of Merger in Nigeria

The formalities of a merger usually include the following steps:

- The company may execute a Memorandum of Understanding which spells out the understanding of the parties and “sets the stage for honest and confident negotiation and anticipates the future steps to be taken by the parties”. This document is not subject to regulation by the Securities and Exchange Commission. The management of the acquiring and target companies will reach a preliminary agreement.
- The Board of directors of both companies would then adopt a merger agreement. Both companies must notify their respective shareholders of the terms of the pro-posed merger and the shareholders must approve the transaction by majority vote.
- Notification and voting materials usually are provided to shareholders of public companies as part of proxy statements required by statutory instrument. The proxy statements will include the terms of the merger, the consideration that will be offered to the target’s shareholders and information about the two companies. These considerations may include stocks and shares or other securities in the acquiring company, debentures, or cash
- If the merger is approved by the required number of shares, the shareholders of the merging company will exchange their stocks for the renegotiated consideration. All shareholders must be entitled to receive equal consideration of each of their shares. However a choice of the form of consideration is sometimes permitted. (Ajogwu F. Aug. 2011)

## 3 Research Methodology

### 3.1 Sampling Procedure, Data and Data Sources

The study will analyse data over the period 2002 – 2014 the data contains the period before banks consolidation (2002 – 2005) and the period after consolidation (2006 – 2014).

As such, data will be sourced from the CBN Statistical Bulletin which contain the list of the 89 pre-consolidation banks and the 25 post consolidation banks in Nigeria. The CBN’s reforms to consolidate the banking sector by drastically increasing the minimum capital requirements from N2 billion to N25 billion led to a remarkable reduction in the number of banks from 89 to 25, mainly by mergers and acquisitions, by the beginning of 2006, for the purpose of overcoming inherent problems of isolating individual banks’ variable after 2005 banks consolidation exercises, the data series will be harmonized over the two periods by aggregating bank data in the pre-consolidation periods using the component members of consolidated banks are in the pre-consolidation periods using the component members of consolidated banks shown in the appendix. This will provide a cross-sectional data for 25 banks that bridge the pre and post consolidation dichotomy in the Nigerian banking industry data.

Thus, the study will take complete census of pre and post consolidation commercial banks in Nigeria. This is considered sufficient to produce robust and generalizable results. Yearly data will be extracted from the consolidation income

statements and balance sheets of individual banks. The fact that different banks close their financial year in different months has been disregarded for the sake of simplicity. It is envisaged that information may not be available for all of the selected banks every year. Bank observations that are missing misreported or that constitute clear outliers will be excluded from the sample.

### 3.2 Analytical Techniques to Achieve the Objectives of the study

In this research, two types of data analysis will be employed; descriptive and parametric statistics.

Objective one will involve a view and appraisal of the spates of regulatory reforms in the Nigerian banking industry from its inception up to the current bank consolidation exercises. This will be achieved by qualitative discussions of the issues involved in bank reforms and regulation over the period of analysis.

Objectives two involves a descriptive assessment of the outcomes of the bank consolidation exercise on bank lending profile and efficiency indicators of the Nigerian banking system. To achieve this objectives, descriptive analysis this helps to describe relevant aspects of the phenomenon of bank credit financing in Nigeria and provide detailed information about each relevant variable will be employed. This involves the use of before and after consolidation approach complemented by statistical test of equality between means of different samples. It is important to recognize that 'before and after' approach yields a systematic picture in developments of key financial variables before and after consolidation but it does not make any attempt to control for other factors or developments that may have helped shape the outcome. That notwithstanding, the methodology can produce useful and meaningful results. Several authors have also used this approach in their work s (sec. Reinhart and Tokatlidis, 2000; Adam, 2007).

Objective three deals with determining the direction and magnitudes of the effects of consolidation induced changes in the banking industry, specially, bank size and capitalization, as well as other conditioning variables, on bank lending performance in Nigeria. To achieve this, quantitative analysis involving the use of simple linear regression analysis, where time-series and cross-sectional observation will be combined and estimated to generate the coefficients of each relevant explanatory variables through the use of Minitab 14 software.

### 3.3 Model Specifications and Econometric Modelling

#### 3.3.1 Model Specification

The reforms and consolidation exercises in the Nigerian banking sub sector has significantly alter the balance sheet strength of individual banking firms. Mergers and acquisitions occasioned by the reforms have seen the 89 weak and marginal pre-consolidation banks evolved into 25 stronger banks in terms of size and capitalization ratings. The aim of banks structure in terms of size and capitalization on loan supply by banks. A bank's loan reaction function in assumed to depend linearly on the bank-characterizing variables, which could be size, liquidity or capitalization. In the literature, bank size is the most commonly used indicator of a bank's ability to generate outside financing: The idea is that small banks have more difficulties in raising funds because they face higher information cost, and therefore a higher external finance premium, than large banks. Hence, they are less able to offset contractionary monetary policy measures and have to reduce their loan supply more strongly than large banks in this case.

Another indicator that has been used in the literature in a bank's capitalization. The idea is based on the argument that a higher capitalization makes a bank less prone to moral hazard and asymmetric information problems vis-à-vis its suppliers of funds. Therefore, the external finance premium of a well-capitalized banks should be forced to restrict their lending more strongly in reaction to a restrictive monetary policy measure than well-capitalized banks.

A relevant variable in explaining effect of merger and acquisition on Banks financial intermediation is Deposit rate and its relationship with capital base. This variable is expected to have a positive effect on the supply of business credit. Another variable that is relevant in explaining bank credit supply in the rate on lending and it relationship with capital base.

The general strategy of the subsequent empirical analysis is to test for a response of bank loan to indicators of bank's balance sheet strength and other conditioning variables. Thus, based on the above theoretical underpinnings, the estimating effect of merger and acquisition expressed as follows:

#### To Express the Model of Simple Linear Regression in Equation for is:

$$Y = a + bx$$

when Y = dependent variable

a = intercept parameter

b = Slope of the regression line.

X = Independent variable.

### Effect of Merger and Acquisition Equation I

DR = a + bCB  
Where DR = Deposit Rate  
a = Intercept parameter  
CB = Capital Base  
b = Slope of the regression line.

### Effect of Merger and Acquisition Equation II

LR = a + bCB  
Where LR = Lending Rate  
a = Intercept parameter  
CB = Capital Base  
b = Slope of the regression line

## 4 DATA ANALYSIS

### 4.1 a Effect of Merger and Acquisition Equation I

Let solve for effect of merger and acquisition equation I

DR = a + bCB  
Where DR = Deposit Rate  
a = Intercept parameter  
CB = Capital Base  
b = Slope of the regression line.

**By Minitab 14 Software Computation**  
The regression equation is

**Capital base = 42.2 - 8.51 Deposit**

Predictor	Coef	SE Coef	T	P
Constant	42.233	5.723	7.38	0.000
deposit	8.509	1.890	4.50	0.001

S = 6.84413 R-Sq = 64.8% R-Sq(adj) = 61.6%

#### Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	949.66	949.66	20.27	0.001
Residual Error	11	515.26	46.84		
Total	12	1464.92			

#### Correlation: Capital Base, Deposit Rate

Pearson correlation of Capital Base and Deposit Rate = 0.8049  
P - Value = 0.001

### 4.1 b Data Analysis (Effect of Merger and Acquisition Equation II)

Let Solve for Effect of Merger and Acquisition Equation II

LR = a + bCB  
Where LR = Lending Rate  
a = Intercept parameter  
CB = Capital Base  
b = Slope of the regression line

## By Minitab 14 Software Computation

### The Regression Equation is

$$\text{Capital base} = 38.8 - 0.94 \text{ lending rate}$$

Predictor	Coef	SE Coef	T	P
Constant	38.76	22.72	1.71	0.116
lending rate	-0.942	1.018	-0.93	0.375

$$S = 11.1156 \quad R\text{-Sq} = 7.2\% \quad R\text{-Sq}(\text{adj}) = 0.0\%$$

### Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	105.8	105.8	0.86	0.375
Residual Error	11	1359.1	123.6		
Total	12	1464.9			

### Correlation: Capital Base, Lending Rate.

$$\text{Pearson correlation of Capital Base and Lending Rate} = 0.2683$$

$$P\text{-Value} = 0.375$$

## 5 Results

### 5.1a Effect of Merger and Acquisition Equation I

From the results of effect of merger and acquisition equation I, the result shows that change in the dependent variable with respect to change in the independent variable is negative or less than zero. This is stated below:

$$\frac{\Delta DR}{\Delta CB} = -8.51$$

This means that the dependent variable (Deposit rate) is inversely related with independent variable (Capital base). The higher the independent variable, the lower the dependent variable or vice versa.

The Pearson product moment correlation coefficient (R) is 0.8049. This means that there is a positive correlation between dependent and independent variable.

The coefficient of determination (R-Squared or  $R^2$ ) is 64.8%. This means that 64.8% variation in the dependent variable is explained by the independent variable and 35.2% of the variation in the dependent variable is explained by the disturbance term or error term. This disturbance terms are inflation, economic meltdown, low productivity, low profitability etc.

In other words, 64.8% variation in deposit rate is explained by variation in capital base. 35.2% variation in the dependent variable is explained by variation of the variables excluded from the model.

### Testing for the Statistical Significant at 5%

$$H_0: b\beta$$

$$H_1: b\beta \neq 0$$

**H0:** There is no significant relationship between capitalization and deposit rate of Banks in Nigeria.

**H1:** There is significant relationship between capitalization and deposit rate of Banks in Nigeria.

From the result in effect of merger and acquisition equation I above, t-cal is 4.50.

### **Decision**

$t_{0.05}$  at  $(13 - 2)$  11 degrees of freedom = 2.201  $t$  cal is greater than  $t_{0.05}$ . The difference is significant, therefore  $H_1$  is accepted and  $H_0$  is rejected, meaning that  $b\beta$  is not equal to zero i.e. there is significant relationship between capitalization and deposit rate of Banks in Nigeria.

More so, analysis of variance (ANOVA) shows that there is significant relationship ( $p$  – value  $< 0.05$ ;  $p = 0.001$ ) between capitalization and deposit rate of Banks in Nigeria.

### **5.1b Effect of Merger and Acquisition Equation II**

From the results of effect of merger and acquisition equation II, the result shows that change in the dependent variable with respect to change in the independent variable is negative or less than zero. This is stated below:

$$\frac{\Delta DR}{\Delta CB} = -0.94$$

This means that the dependent variable (Lending rate) is inversely related with independent variable (Capital base). The higher the independent variable, the lower the dependent variable or vice versa.

The Pearson product moment correlation coefficient ( $R$ ) is -0.2683. This means that there is a negative correlation between dependent and independent variable.

The coefficient of determination ( $R$ -Squared or  $R^2$ ) is 7.2%. This means that 7.2% variation in the dependent variable is explained by the independent variable and 92.8% of the variation in the dependent variable is explained by the disturbance term or error term. This disturbance terms are inflation, economic meltdown, low productivity, low profitability etc.

In other words, 7.2% variation in Lending rate is explained by variation in capital base. 92.8% variation in the dependent variable is explained by variation of the variables excluded from the model.

### **Testing for the Statistical Significant at 5%**

$$\begin{aligned} H_0: b\beta \\ H_1: b\beta \neq 0 \end{aligned}$$

$H_0$ : There is no significant relationship between capitalization and Lending rate of Banks in Nigeria.

$H_1$ : There is significant relationship between capitalization and Lending rate of Banks in Nigeria.

From the result in effect of merger and acquisition equation II above,  $t$ -cal is -0.93

### **Decision**

$t_{0.05}$  at  $(13 - 2)$  11 degrees of freedom = 2.201  $t$  cal is less than  $t_{0.05}$ . The difference is not significant, therefore  $H_0$  is accepted and  $H_1$  is rejected, meaning that  $b\beta$  is not equal to zero i.e. there is significant relationship between capitalization and Lending rate of Banks in Nigeria.

More so, analysis of variance (ANOVA) shows that there is no significant relationship ( $p$  – value  $> 0.05$ ;  $p = 0.375$ ) between capitalization and Lending rate of Banks in Nigeria.

## **6 DISCUSSION**

### **6.1 Effect of Merger and Acquisition Equation I**

Having done a critical analysis of the data in this research work, it was discovered in this empirical investigation into the “effect of mergers and acquisition on the efficiency of financial intermediation in the Nigerian Banking System” that there exist a positive correlation between the dependent variable (Deposit rate) and independent variable (Capital base) in the effect merger and acquisition equation I. This means that there exist a very strong relationship between dependent variable (Deposit rate) and independent variable (Capital base). The interpretation of this is that, there is strong confidence for bank customers about depositing their money into the Nigerian Banks.

The coefficient of determination of 64.8% in effect merger and acquisition equation I measures the strength of the relationship or cause effect relationship which means that 64.8% variation in the dependent variable (Deposit rate) is explained by the independent variable (Capital base) and 35.2% of the variation in the dependent variable is explained by the disturbance term or error term due to inflationary pressure, economic meltdown, low profitability etc.

Beside, in effect merger and acquisition equation I, Deposit rate has been found as a decreasing function of capital base, this lowers the value of the deposit rate. This means that despite the strong confidence that customers has in the banking industry to deposit their money, the rate of deposit in the Nigeria Banks is still not up to 100%.

The parameter of deposit rate in relationship with capital base is statistically significant at 5%, this means that the variables is not equal to zero and are true variable for the model.

## 6.2 Effect of Merger and Acquisition Equation II

It was discovered in effect merger and acquisition equation II that there exist a negative relationship or correlation between the dependent variable (Lending rate) and independent variable (Capital base). This means that there exist a very weak relationship between the dependent variable (Lending rate) and independent variable (Capital base). This means that despite merger and acquisition of Nigerian Banks in 2005 (recapitalization), the rate at which Nigerian Banks lend out money is still low. This means that banks are not able to achieve their financial intermediation role to the fullness.

The coefficient of determination of 7.2% in effect merger and acquisition equation II measures the strength of the relationship of cause effect relationship which means that 7.2% variation in the dependent variable (Lending rate) is explained by the independent variable (Capital base) and 92.8% of the variation in the dependent variable is explained by the disturbance term or error term due to inflationary pressure, economic meltdown, low profitability.

Besides, lending rate has been found as an increasing function of capital base, this means that there is always an increase in the value of the rate. This means that the recent recapitalization i.e. merger and acquisition of banks led to increase in the level of bank lending.

## 7 Conclusion

From the analysis made, it can be concluded that the evaluation of merger and acquisition of financial institution have a positive impact on the Nigeria Banking System. Merger and acquisition remain one of the viable options for rescue some banks from financial problem and also serves as a vehicle of growth and development for other banks.

## 8 Recommendations

It has been discovered that not all mergers and acquisition will survive if proper steps are not taken. However, it is suggested that for a merger to be successful the following are recommended:

- Indications are that, the banks are flush with excess liquidity and are highly capitalized as a result of the consolidation exercise, so there will be some aggressive competition for profitable lending opportunities. With the spates of merger and acquisition activity during the banking consolidation, synergies and cost savings is expected to lower overhead costs and thus significantly lower cost of credit in the domestic economy. However, these payoffs are not significantly manifesting in the post-consolidation Nigerian banking system. Subsequently policies are recommended to address firm-specifics and macroeconomic fundamentals that will drive down the high wedge between lending and deposit rates to further strengthen the efficiency of financial intermediation in the industry. The need to strengthen the supervisory framework to curb tendencies for rent seeking behaviour of banks management is advocate.
- The need to strengthen the overall financial system with which the banking sector operates becomes fundamental if the potentials of the banks consolidation exercise will be fully realized. Inflationary pressures and fiscal indiscipline has been the perennial problems of the financial sector when inflation is high, there tends to be insufficient savings, because inflation erodes the value of financial saving therefore moves out of countries with inflationary expectations into those with low of inflationary expectations. To attract and retain financial savings in the economy, therefore, government has to give top priority to need to drastically reduce the rate of inflation to global average. This is in addition to immediate reform of the lax fiscal situation, and a stronger mandate to the Central Bank to treat the attainment of a pre-specified rate of inflation (an explicit inflation target,) as its main focus.

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