A COMPARATIVE ANALYSIS OF THE IMPACT OF MERGERS AND ACQUISITIONS ON THE COST SAVINGS OF NIGERIAN BANKS

Ojogbo, Samuel Obinna[a], Oke, Babatunde Olufemi[b] and Mesike, Godson C.[c]
[a,b]Department of Finance, Faculty of Management Sciences, University of Lagos, Lagos, Nigeria
[c]Department of Actuarial Science and Insurance, University of Lagos, Lagos, Nigeria.
Corresponding author: [a]sojogbo@unilag.edu.ng

Abstract

A comparison of mergers and acquisitions throughout the two phases of Nigerian bank recapitalization, as well as their consequences on Nigerian banks' ability to save costs, was investigated in this study. The study critically appraises the implications of mergers and acquisitions on cost savings for the Nigerian banking sector over the two phases of the banking sector recapitalization process. The panel data estimation technique, which takes heterogeneity of the sample units into consideration, by allowing for individual bank-specific variables, was employed. Mergers and acquisitions have a favourable influence on bank cost savings in Nigeria, according to the findings. Further macroeconomic reforms, according to the report, should rely primarily on interest rate operating procedures, with the only goal of implementing the law of one market in both domestic and foreign money markets.

Keywords: Mergers, Acquisitions, Performance, costs savings.

1. INTRODUCTION

The ideas of mergers and acquisitions became a worldwide phenomena, particularly within the banking sector. Over 7000 bank mergers have occurred within the USA since 1980, with a comparable trend within the UK and different European countries (Altunbas & Marques, 2008). 2 French banks incorporate in 1998 to supply a brand new bank with a capital base of US$688 billion, whereas 2 German banks incorporate within the same year to create the second largest bank within the world, with a capital base of US$541 billion. Berger, Humphery, and Akhavein (1997).

Some of these were the antecedents utilized in convincing Nigerians that the M&A project within the banking sector was a world development. However, what looks to be clear was that the motivation that motivated the employment of the strategy in these places, and their similarities with the Nigerian scenario were totally different.

The main goal of the changes was to make it easier to establish a safe and strong banking system, promote accountability and transparency in the industry, reduce bank costs and make them more competitive and development-oriented (Soludo, 2006).

The poor performance of Nigerian banks has persisted throughout time, and has been attributed to issues such as a low capital base, high operating costs, and the presence of tiny banks. Their capacity to compete effectively in the worldwide financial market was harmed as a result of these flaws. While companies in other countries use mergers and acquisitions as a strategy to improve their performance and gain competitive advantage, the banks in Nigeria used it to meet the minimum capital base requirement. It was not market forces or the condition of the Nigerian capital market or any of these aforementioned issues but the underlying regulation of recapitalization that influenced mergers and acquisition in Nigeria unlike in other countries (Soludo, 2006).

The purpose of this research is to see if mergers and acquisitions have resulted in cost reductions for Nigerian banks in line with the banking sector reform's major goals. The research focuses on the two phases of the Nigerian banking sector's recapitalization-induced mergers and acquisitions.

2. LITERATURE REVIEW

Two elementary techniques are accustomed examine the empirical literature on the consequences of mergers and acquisitions on bank performance. the primary maneuver is targeted on event analysis, that is often supported stock worth swings round the time of the merger announcement (Cybo-Ottone & Murgia, 2000; Scholtens & DE Wit, 2004; Cornett, McNutt &Tehranian, 2006; Campa & Hernando, 2006; Campa & Hernando, 2008; Crouzille, Lepetit & Bautista, 2008; Altunbas & Marques, 2008; Petmezas, 2008). The goal of those studies was to look at if the announcement of a bank merger provides stockholder worth within the style of abnormal stock exchange returns for the target, bidder, and combined entity's shareholders. The second body of study investigates the impact of mergers and acquisitions on bank potency. Cost, profit, and/or technical potency square measure unremarkably used as indicators of productive potency in these analysis (Hahn, 2007; Koetter, 2008).

The come on equity and stockholder wealth grow as a results of a merger and acquisition, further as any corresponding expenses (operation costs) for the corporate. The second major goal of merger and acquisition is to maximize stockholder wealth so as to survive during a fast, economical market (Georgios & Georgios 2011). Sirower and O'Byrne (1998) used the expected level of annual operational performance expressed in terms of measure additional to validate the acquisition (EVA). Stern Stewart & Co established this metric that involves subtracting value of capital from operational earnings to see a company's monetary performance. This provides a

valuable benchmark for comparison actual acquisition performance to expectations (Sirower & O'Byrne, 1998). Their analysis calculated each companies' pre-acquisition values further because the acquisition premium to see the anticipated stage of annual operational performance needed to justify the investment.

The applied math technique of knowledge enclosure analysis (DEA) is additional usually utilized in research to look at the relative potency of various decision-making units (Krishnakumar & Sethi 2012). This methodology was utilized by Kwoka and Pollitt (2010) to assess the effectiveness of mergers within the North American nation electric-power distribution market. They calculated the impact of mergers on company value potency by adding operational expenses and current capital expenditures. The less competent firm was then coupled with a mixture of wonderful observe corporations that would produce a minimum of the maximum amount of every output whereas tributary the smallest amount. There have been seventy three utilities in their sample, with twelve being purchased, twenty being sellers, and also the remaining cardinal being management enterprises with no merger considerations throughout the study amount.

Bhan (2009) investigated eight merger deals within the Indian banking sector from 1999 to 2006, providing insight into the motivations and blessings of mergers within the Indian banking business. The study's findings incontestable that mergers are helpful to merging establishments whereas conjointly adding worth to effort banks. What is more, the impact of mergers within the Indian banking setting is seen over an extended amount of your time instead of a brief amount of your time. Walter and Uche in (2005), ended that Nigerian banks square measure additional economical as a results of mergers and acquisitions. Their knowledge was provided during a tabular vogue, and it had been analyzed victimization straightforward percentages. Akpan (2007) used chi-square to check his hypothesis and located that the consolidation and recapitalization policy ensured client

confidence within the Nigerian banking system in terms of high profit. Liu and Tripe (2002) used accounting ratios and 2 DEA models to assess the potency of six bank mergers in New Sjaelland between 1989 and 1998. They checked out a little sample of seven to 14 banks. On average, effort banks were larger than their targets, although not forever additional economical. 5 of the six united banks achieved potency gains supported monetary metrics, whereas one had solely a touch improvement in operational expenses to average total financial gain. Before the merger, simply some establishments were additional economical than the target banks, consistent with the DEA study. Four banks, consistent with the info, gained vital potency advantages as a results of their merger. They were unable, however, to return to a particular conclusion concerning the mergers' prospective advantages. Rhoades summarized 9 case studies on the potency effects of bank mergers (1998). His analysis centered on mergers that perceived to be additional seemingly to end in potency enhancements. They featured immense banks with vital market overlap that mostly occurred within the early Nineties, once banking potency was a hot topic. All 9 mergers resulted in vital value savings that were foreseen before the merger. Four of the 9 mergers clearly improved value potency, whereas the opposite 5 failed to. Dickerson, Gibson, and Tsakalotos (1997), following Meek (1997), checked out the results of mergers employing a wider sample of 4430 United Kingdom of Great Britain and Northern Ireland acquisitions from 1948 to 1977. Within the 5 years following the merger, Dickerson et al. according a major drop by operational performance, like Meeks (1997), however the acquisition growth constant was considerably under internal growth. This result incontestable that takeovers had a consistently negative impact on a company's performance. They conjointly discovered that a non-acquiring firm outperformed AN effort firm by a pair of.4 % each year. Different authors found no vital distinction in post-merger operational performance when put next to the analysis mentioned on top of. The primary 2 articles to report

non-significant findings in early analysis were Ravenscraft and Scherer (1987) and Herman and Lowenstein (1988). Ravenscraft and Scherer's (1987) investigations, on the opposite hand, are challenged for a flaw within the analysis style. The three-year assessment of performance modification from 1974 to 1977 had nothing to try to with the twenty-seven-year merger amount from 1950 to 1977. As a result, the performance of acquirers is compared entirely on the areas of business of the non-heritable firm (Bruner, 2002). The empirical findings of Herman and Lowenstein (1988) have conjointly been questioned. Healy et al. (1992) attributed the failure of the authors to regulate for variations in business shocks to the exclusion of a significant share of post-merger knowledge for acquisitions once 1979 (the study amount is 1975-1983). As a result, the constraints of those investigations create it tough to interpret their conclusions. Groff, Lien, and Su (2007) utilized knowledge enclosure Analysis to visualize if hospital mergers within the USA resulted in changes in potency. Hospitals that had merger activity between 1994 and 1995 were enclosed within the study, further as a matched management cluster. The sample contains 166 hospitals that were concerned in mergers in 1994 and 1995 (77 in 1994 and eighty nine in 1995). If the constant of the merger standing variable showed a positive relationship between potency scores and mergers, hospital mergers resulted in a potency gain. The findings found that there have been no discernible potency will increase within the 1st year following the merger, however that potency improved dramatically within the second year.

3. METHODOLOGY

The functional form of the model is given as follows, based on theoretical and empirical literature:

BP = f(β_0 LDR, NIM, CIR, EPS, DMERGER) ……………………………… (i)

Where;

BP = bank performance, (proxied by return on assets)

LDR stands for loan-to-deposit ratio.

NIM = net interest margin.

CIR = cost to income ratio

EPS stands for earnings per share

DMERGER is a dummy variable to represents the time of mergers and acquisitions.

The constant coefficient panel data regression model was utilized to eliminate the problem of regressor and error term correlation. The impact of the Loan to Deposit ratio, Net Interest Margin, Costs to Income ratio, Earnings per Share, and merger dummy on bank performance as evaluated by return on assets may thus be expressed in linear form as:

$$ROA_{it} = \beta_0 + \beta_1 LDR_{it} + \beta_2 NIM_{it} + \beta_3 CIR_{it} + \beta_4 EPS_{it} + \beta_5 DMERGER + \mu_{it} \quad \text{(ii)}$$

β_0, β_1, β_2, β_3, β_4, and β_5 are the unknown estimates to be determined.

The apriori expectation is stated as:

$\beta_1>0$, $\beta_2>0$, $\beta_3>0$, $\beta_4>0$, and $\beta_5>0$ meaning that all coefficients are expected to be positive

3.1 THE VARIABLES

3.1.1 LOAN TO DEPOSIT RATIO

This is an ordinarily used indicator for activity a bank's liquidity. It's calculated by dividing the bank's total loans by its total deposits. Its inclusion within the model is even as a result of it assesses a bank's overall performance. If this magnitude relation is simply too low, the bank might not be creating the maximum amount cash because it ought to. It's calculated by dividing loans by deposits.

3.1.2 NET INTEREST MARGIN

It is a live of the distinction between a bank's interest financial gain and also the quantity of interest paid resolute its lenders, as a proportion of the bank's interest-earning assets, that has a sway on the bank's capability to get returns on its assets. It's computed by dividing the common earnings assets by the returns on investment, minus interest expenses.

3.1.3 COST TO INCOME RATIO

This is the difference between operating income and operating expenses. It measures how costs are changing compared to income. Its inclusion in the model is justified because it is key to achieving the cost savings objective of this study. It is arrived at by dividing the operating expenses by operation income.

3.1.4 EARNINGS PER SHARE

It is accustomed verify a bank's earnings quality. It's derived by dividing net profit by the common variety of outstanding common stock. It's oft thought to be one in every of the foremost crucial factors in crucial a bank's profit.

3.1.5 RETURN ON ASSET

This is a live of a bank's performance as a share of total assets. It indicates however effective a company's management is at generating profits from its assets. It absolutely was chosen for this study as a result of it assesses a bank's performance in respect to all stakeholders. It's computed by dividing net profit by total assets.

In an effort to analyze the 2 phases of consolidation prices performance of banks, a comparative analysis of performance ratios was applied. A panel regression model was employed in this

investigation. Whereas typical multivariate analysis techniques is used on panel knowledge, they will not be the simplest possibility. Omitted variable bias will alter constant estimates generated from regression. This is often a retardant that arises once the variable quantity is influenced by Associate in nursing unknown variable or variables that can't be controlled. Despite their several blessings, panel knowledge poses variety of estimation and illation problems. As a result of such knowledge embody each cross-sectional and time dimensions, issues that afflict cross-sectional knowledge (e.g., heteroscedasticity) and statistic knowledge (e.g., autocorrelation) should be addressed.

Several estimating methods are developed to resolve these issues, the foremost well-liked of that square measure the fastened Effects Model (FEM) and therefore the Random Effects Model (REM) (REM). Fastened effects regression is that the model to use once making an attempt to account for missing variables that dissent between instances however stay constant over time. In thought of the very fact that every cross sectional unit might have distinctive properties, this model permits every cross sectional unit to dissent within the model. It’s the foremost common technique for panel knowledge analysis as a result of it permits you to estimate the results of independent variables on the variable quantity by victimization changes within the variables over time. To investigate the info and assess the hypotheses, this study used fastened impact balanced panel knowledge multivariate analysis with cross section weights. The monetary performance of banks that didn't interact in mergers and acquisitions was used as a bearing for banks that used mergers and acquisitions to satisfy the minimum capital base demand.

4. DATA ANALYSIS

TABLE 4.1: REGRESSION RESULT FOR FIRST PHASE OF M&A (2003-2009)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.036463	0.007429	4.908001	0.0000
LDR	0.023644	0.007172	3.296820	0.0013
DMERGER	-0.007407	0.002676	-2.768413	0.0065
CIR	-0.036157	0.002131	-16.96598	0.0000
NIM	-0.031834	0.013922	-2.286698	0.0240
EPS	0.012577	0.001693	7.428921	0.0000
Weighted Statistics				
R-squared	0.798775	Mean dependent var		0.034655
Adjusted R-squared	0.790391	S.D. dependent var		0.067913
S.E. of regression	0.029432	Sum squared resid		0.103949
F-statistic	95.26959	Durbin-Watson stat		2.066748
Prob(F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.471349	Mean dependent var		0.011728
Sum squared resid	0.235337	Durbin-Watson stat		2.265122

Source: researcher's analysis, 2021

The first wave of mergers and acquisitions in 2005 is pictured by the regression end in table four.1. aside from loan to deposit ration and earnings per share, that exhibit positive associations with bank performance, the parameter estimates don't change to the a priori hypothesis of a positive relationship between mergers and acquisitions and bank performance.

All the freelance variables from the result on top of have individual important impact on bank performance. This can be indicated by the t-statistic for the individual variables.

The R^2 constant of determination is employed for instance what quantity of the variation within the variable quantity are often explained by the freelance variables. In alternative words, it demonstrates what quantity the informative power has a bearing on the variable quantity. As a result, the experimental variable will account for eightieth of the variance within the variable

quantity. This can be awfully high range that differs from zero statistically. The R^2 can also be used to determine the model's goodness of fit, or how well the regression truly matches the data. Our parameter estimate is tested for autocorrelation using the Durbin Watson Statistic. The Durbin Watson Statistic of 2.07 indicates that there is no autocorrelation between the variables in the model, based on the study above.

The F statistic of 95.27 implies that the overall model is significant and that all the explanatory variables jointly explain changes in the dependent variable. F statistic of 95.27 is significant showing that the included explanatory variables are jointly significant. The p values also support this assertion, since they are all less than the 5% significance level.

The F statistic has a probability of 0%, which is within the level of significance of 5%. With this research, we accept null hypothesis one and two, which state that mergers and acquisitions have no significant positive influence on bank profitability.

TABLE 4.2: REGRESSION RESULT FOR SECOND PHASE OF M&A (2005-2012)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.039761	0.005095	7.803980	0.0000
LDR	-0.001639	0.009927	-0.165089	0.8707
DMERGER	-0.003960	0.003928	-1.008064	0.3268
CIR	-0.035688	0.000410	-86.97223	0.0000
NIM	-0.006776	0.005528	-1.225718	0.2361
EPS	0.007538	0.002460	3.064958	0.0067

Weighted Statistics

R-squared	0.967455	Mean dependent var	0.011562
Adjusted R-squared	0.958414	S.D. dependent var	0.046758
S.E. of regression	0.009079	Sum squared resid	0.001484
F-statistic	107.0153	Durbin-Watson stat	2.688106
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.977086	Mean dependent var	0.004083
Sum squared resid	0.001625	Durbin-Watson stat	2.880853

Source: researcher's analysis, 2021

The second regression end in table four.2 higher than shows the second wave of mergers and acquisitions in a pair of 009 apart from earnings per share, that incorporates a positive and important impact, and value to interest quantitative relation, that incorporates a negative and important impact on the variable singly, the freelance factors all have a negative influence on bank performance during this second study.

R^2 denotes the constant of determination that is ninety-seven %. This means that the independent variables will justify ninety-seven % of the variability within the variable.

The Durbin Watson data point is a pair of .69, indicating that the variables within the model don't have any autocorrelation.

The F worth of 107.01 indicates that the general model is critical, which all informative variables square measure singly important in explaining changes within the variable. These statements also are supported by the p values.

According to the multivariate analysis, there has been a negative impact of mergers and acquisitions on bank performance in African nation throughout the primary and second waves of mergers and acquisitions during this study.

4.0 FINDINGS

This study focuses on a comparative investigation of the results of mergers and acquisitions on value savings for Nigerian banks. The subsequent conclusions were drawn from the findings:

The parameter estimations within the 1st and second phases square measure according to the hypothesis of a negative relationship between value to financial gain quantitative relation and performance. Consistent with the findings of this investigation, there are value reductions within the banking sector as a results of mergers and acquisitions in each phases. The price savings within the second section were smaller than the price reductions within the 1st section in comparison to the primary section. In each phases, cyber web Interest Margin conforms to the assumptions of a negative relationship with performance. Within the second section, the table game was below within the 1st. this means a decrease within the table game in each phases, with the second section achieving a larger reduction. More reforms, consistent with this report, ought to primarily concentrate on rate operative procedures for economic science management, with the sole goal of achieving the law of 1 market in each domestic and foreign cash markets.

References

Akhavein, J.D., Berger, A.N., & Humphery, D.B. (1997). The effects of Megamergers on Efficiency and Prices: Evidence from a bank profit function. *Review of Industrial Organization*. 12, 95 - 139.

Akpan, A. B. (2007). Effectiveness of bank capitalisation and consolidation in building market confidence: An assessment of customers' perception in Nigeria. *Abuja Journal of Business Administration*, 1(2), 64-97.

Altunbas Y, & Marques D (2008). Mergers and acquisitions and bank performance in Europe: The role of strategic similarities. *Journal of Economics and Business,* 60(3), 204-222

Bhan, A. (2009). Mergers in Indian banking sector- motives and benefits. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1467813

Bruner, R.F. (2002). Does M&A pay? A survey of evidence for the decision-maker. *Journal of Applied Finance*.

Campa, J.M., & Hernando, I. (2006). M & As performance in the European financial industry. *Journal of Banking and Finance,* 30 (12), 3367-3392

Campa, J.M., & Hernando, I. (2008). The reaction by industry insiders to M&As in the European financial industry. *Journal of Financial Services Review,* 33(2), 127-146.

Cornett, M.M., McNutt, J.J., & Tehranian, H. (2006). Performance changes around bank mergers: Revenue enhancements versus cost reductions. *Journal of Money and Credit,* 38(4), 1013-1050.

Crouzille, C., Lepetit, L., & Bautista, C. (2008). How did the Asian stock markets react to bank mergers after the 1997 Asian financial crisis? *Pacific Economic Review,* 13 (2), 171-182.

Cybo-Ottone, A., & Murgia, M. (2000). Mergers and shareholders wealth in European banking. *Journal of Banking and Finance,* 24(6), 831-859.

Dickerson, A., Gibson, H. & Tsakalotos, E. (1997). The impact of acquisitions on company performance: evidence from a large panel of UK firms. *Oxford Economic Papers*, 49, 344-361

Georgios, K., & Georgios, H. (2011). Analysis of a bank merger and acquisition between laiki bank from Cyprus and marfin investment group from Greece. Is there an increase of profitability of the new bank? *Kyriazopoulos-Hadjimanolis, MIBES*, 5, 157-176.

Groff, E., Lien, D., & Su, J. (2007). Measuring efficiency gains from hospital mergers. *Research in Healthcare Financial Management*, 1-10.

Hahn, F.R. (2007). Domestic mergers in the Austrian banking sector: A performance analysis. *Applied Financial Economics*, 17, 67-74.

Hahn, F.R. (2007). Domestic mergers in the Austrian banking sector: A performance analysis. *Applied Financial Economics*, 17, 67-74.

Healy, P. M., Palepu, K. G., & Ruback, R. S. (1992). Does corporate performance improve after mergers? *Journal of Financial Economics*. 31(2), 75 – 135

Herman, E., & Lowenstein, L., (1988). *The efficiency effects of hostile takeovers.* Oxford University Press, Oxford.

Koetter, M. (2008). An assessment of bank merger success in Germany. *German Economic Review,* 9(2), 232–264.

Krishnakumar, D., & Sethi, M., (2012). Methodologies used to determine mergers and acquisitions' performance. *Academy of Accounting & Financial Studies Journal* 16(3), 75–91.

Kwoka, J., & Pollitt, M. (2010). Do mergers improve efficiency? Evidence from restructuring the US electric power sector. *International Journal of Industrial Organization, 28*(6), 645.

Liu B, & Tripe D (2002). New Zealand bank mergers and efficiency gains, *Journal of Asia and Pacific Business,* 4, 61-81.

Meeks, G. (1997). *Disappointing marriage: A study of the gains from merger*. Cambridge. Cambridge University Press.

Petmezas, D. (2008). What drives acquisitions? Market valuations and bidder performance. *Journal of Multinational Financial Management*, 10(2).

Ravenscraft, D. J., & Scherer, F. M. (1987). Life after takeover. Journal of Industrial Economics, 147-156.

Rhoades, S.A. (1998). The efficiency effects of bank mergers: An overview of case studies of nine mergers. *Journal of Banking & Finance,* 22(3), 273-291.

Scholtens B, & de Wit R (2004). Announcement effects of bank mergers in Europe and the U.S. *Research Journal of International Business and Finance,* 18(2), 217-228.

Sirower, M. L. & O'Byrne, S. F. (1998), The measurement of post-acquisition performance: towards a value based benchmarking methodology. *Journal of Applied Corporate Finance, 11*, 107–121.

Soludo C. (2006). Beyond banking sector consolidation in Nigeria. Presentation at the Global Banking Conference on Nigerian Banking Reforms; 29 March; The Dorchester Hotel, London. *http://www.cenbank.org/documents/speeches.*

Walter, C. & Uche, U. (2005). New capitalisation for banks: Implication for the Nigerian economy. *Adamawa State University Business Journal*, 1(1), 124-151.