

Bank Consolidation and Improvement of Shareholder Value: An Empirical Evaluation of Return on Capital Employed Following Bank Mergers in Nigeria

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Abstract

The effects of bank mergers and acquisitions (M & as) on shareholders' wealth has long been of interest to researchers in the developed economies. However, in emerging economies, especially Africa, similar studies have been very few and the findings are varied and do not point towards one direction. Against this background, this study investigated the post-merger Return on Capital Employed (ROCE) of banks following the 2004/2005 industry-wide mergers and acquisitions in Nigeria. Data were obtained from the audited annual reports of the banks from which mean ROCE ratios of the banks were computed before and after mergers. Paired Sample t-tests and Independent Sample t-tests were performed on the ROCE for the target and control groups. Contrary to the popular findings from most earlier studies undertaken in the developed world, which found positive relationships between bank mergers and shareholders' value, the findings of this study are more consistent with the less popular opinion that bank mergers at best do not enhance shareholder value, and in some cases, may even diminish it. The study therefore recommends that subsequent reforms of the banking industry should be geared toward creating enabling environment that will usher in banking efficiency which will in the long-run secure and increasingly enhance profitability and shareholder values of the banks.

Keywords: Bank Consolidation, Mergers, Shareholder Wealth, Enhancement, Acquisition.

1.0 Introduction

The banking sectors of many economies have witnessed and are increasingly witnessing corporate restructuring in the form of national and international mergers and acquisitions (M & as). These high-stake corporate consolidations have attracted sustained attention of investors, the banking public, researchers, and the political class across the globe, perhaps for different reasons, whose common denominator emphasizes the critical role banking plays in the economy, wellbeing and survival of every country. The global wave of banking M & As caught up with the Nigerian banking sector in 2004/2005 when it experienced industry-wide mergers and acquisitions in response to the consolidation directive of the Central Bank of Nigeria (CBN). This directive which imposed a minimum paid-up capital of 25 billion naira, (about 178.6 million U.S. Dollars) was with the intent amongst others, of enhancing shareholder value, efficiency of the industry, and ensuring that the Nigerian banks would grow into major players regionally and globally. Although this exercise was industry-wide and undertaken within time deadline given by the CBN, some few banks which were able to meet the CBN-prescribed minimum paid-up capital stood alone, and did not embrace any form of M & A.

2.0 Research Problem

Several years after the completion of the industry-wide exercise, there is the inalienable need to assess the economic outcomes of these much-publicized M & As. This need is more germane because the issue of M & A performance is still open in the literature as the findings are controversial with claims and counter-claims on post-merger financial performance. Studying the financial ratios of banks in Nigeria pre and post-M & A, this study investigated the impact of M & As on Return on Capital Employed (ROCE) ratio of the merged banks as well as the stand-alone banks.

3.0 Survey of Literature

The Concept of Merger and Acquisition

While acknowledging that literally, merger is the absorption of one firm by another, the interdisciplinary nature of merger and acquisition regardless of industry or geographical context has been reflected in the versatile definitions that abound in literature. Different attempts at defining M & A emphasize its different aspects: the process of M & A, the resultant organization(s) from the process, the legal implications of M & A, etc. Yet, many definitions see M & A as one activity that involves some form of combination between two or more organizations, while others try to differentiate between merger on the one hand, and acquisition on the other, as two different interrelated activities. The following definitions are instructive. Parvinen, (2003) observes that in strategic management, 'Merger and Acquisition' refers to the buying, selling and combining of different companies in a given industry. Emphasizing only on 'mergers', Vaara (2000) and Marchildon, (1991) seem to be in agreement. While to Vaara (2000), a merger refers to any form of combination of organizations, initiated by different kinds of contracts, Marchildon, (1991) defines a merger as the consolidation that implies the combination of two or more firms submerging into a new corporate identity. In his contribution, DePamphilis, (2011), highlights the legal perspective of a merger when he defines a merger as the combination of two or more firms in which all but one legally ceases to exist, and the combined organization continues under the original name of the surviving firm. In addition, DePamphilis, (2011) has attempted to differentiate between merger and acquisition. He opines that although merger and acquisition are closely related, an acquisition however, occurs when one company takes a controlling ownership interest in another firm, a legal subsidiary of another firm, or selected assets of another firm such as a manufacturing facility. An acquisition can also happen through a hostile takeover by purchasing the majority of outstanding shares of a company in the open market against the wishes of the target's board (Kwall, 2006). In spite of their technical differences, mergers and acquisitions are treated as a single business phenomenon in the management literature; a perspective adopted in this study, as no attempt is made to differentiate between the two concepts in their operationalization.

Rationale for Bank Mergers & Acquisitions

The strategic management literature is replete with claims that synergy is the major rationale behind every M & A. At least in theory, Ismail, *et al.* (2011) believe that M & As help organizations, including banks to create synergies, gain economies of scale, expand operations and cut costs, as well as enhance market power (Ismail, *et al.* 2011). There seems to be some general consensus in the strategic management literature that in principle, the decision to merge or acquire a firm is motivated by the desire to enhance shareholders wealth. However, agency conflicts between shareholders and managers could also lead to situations in which the decision to acquire or merge is motivated by the managers' self interest and other considerations (Bliss and Rosen, 2001; Lausberg and Stahl, 2007). Selden and Colvin (2003) have suggested that the most common reason why firms merge with or buy one another is to acquire customers by using excess cash. However, in disagreement, Albizzati and Sias (2004) assert that the reasoning for an acquisition needs to be more strategic than just simply the use of excess cash; but they agree with Lynch and Lind (2002) that the strategic reasons for M & As are to acquire new products, to extend geographical reach; to consolidate within a mature industry; to transform the existing industry or to create a new industry, as a substitute for Research & Development, and to acquire new capabilities and skills. This reasoning is consistent with the view of a firm as a set of capabilities embodied in an organizational framework as expressed by Capasso and Meglio (2007). More so, some bank mergers, especially in emerging economies have been motivated by regulatory factors (Yusuf, 2012) as was the case in Nigeria in 2004/2005. Generally, in the literature, the motivations and likely benefits of M & As in the financial services sector are so diverse; they include economies of scale, cost and revenue based economies of scope, enhancement of operating efficiency, market power, diversification of revenue streams, access to desired human resources, and perhaps government support granted to firms deemed to be "Too Big To Fail".

Outcomes of Bank M & As

In reality, synergies accruable from mergers and acquisitions have been mixed and thus, mathematically expressed either as $2 + 2 = 5$ or $2 + 2 = 3$. Richard Kovacevich, the CEO of Wells Fargo, an acquisitive U.S. bank has been quoted by Walter, (2004) as saying “With bank mergers, two plus two equals either three or five.” This statement aptly summarizes the paradox of M & A performance. In this vein, the M & A literature is replete with claims and counterclaims that M & As could lead to scale, cost and revenue economies or diseconomies as a result of the complexity associated with increased size, etc. Thus, the findings of studies on the performance of bank mergers and acquisitions are divergent. Chen, *et al.* (2011) along this line have observed that by virtue of M & As, banks have become larger, more diversified, and more geographically spread than ever, however, their impact on performance has at best, been mixed.

Expressing the negative relationship between M & As and post-M & A performance, Ismail, *et al.*, (2011) assert that in theory, M & As are great, but in practice, they can go wrong, as lots of mergers do not work. In their conclusion, they claim that evidences have suggested that several bank mergers have been disappointing, and anticipated efficiencies derivable from economies of scale have rather been elusive. Similarly, in their study of post-merger performance of banks in Pakistan, Kouser and Saba (2011) obtained evidence that suggest decline in all the profitability ratios they studied. Hence they conclude that bank M & A had negative effect on profitability. Ong, *et al.*, (2011) also obtained results that indicate that M & As in Malaysia did not significantly improve the financial performance of banks. In addition, Sufian, *et al.*, (2007) found from their financial ratio analysis that M & A have not resulted in improved profitability for Singaporean banks. Conversely, to buttress the paradox of bank M & A performance, Khan, (2011) in his study of bank mergers and acquisitions in India found that M & A have positive relationship with financial performance. Sinha and Gupta (2011) conducted a pre and post-merger analysis of banks’ financial performance and obtained evidence that is suggestive of positive effect of M & A on bank profitability. Additionally, Egger and Hahn (2010) evaluated the performance of Austrian bank mergers from 1996 to 2002 and provided evidence in favour of the view that mergers exert positive effects on bank profitability. Similarly, Soemonagoro (2006) reported M & A related performance improvement for banks in Indonesia.

3.0 Methodology

The study is structured as matched-sample comparisons: matching merged banks (target group) with stand-alone or non-merged banks (control group). These two groups of banks were studied. In this study, the researchers investigated (i) whether or not merged banks outperformed their stand-alone peers, and (ii) whether the merged banks performed better following mergers. The mergers that took place in the banks across time constitute the independent variables, while the dependent variables are the Return on Capital Employed. In order to steer clear of the possible implications our findings may have for banks studied in terms of customer loyalty and investor confidence, we have coded our subjects as Merged Bank 1 (MB1), Merged Bank 2 (MB2), etc. and Stand-Alone Bank 1, (SAB1), Stand-Alone Bank 2 (SAB2) etc.

3.1 Hypotheses

H₀₁: M & as do not enhance Return on Capital Employed (ROCE) for the banks involved.

H₀₂: Consolidation does not have positive relationship with the ROCE of the control-group banks.

H_{03a}: There is no significant difference between the ROCE of the target group banks and the control-group banks before mergers.

H_{03b}: There is no significant difference between the ROCE of the target group banks and the control-group banks after mergers.

3.2 Data

We obtained the data for this study from the audited annual financial reports of the 89 pre-consolidation banks 3 years before M & As (2002-2004), and the 24 consolidated banks 3 years after mergers (2006-2008). Research & Data Services Limited, (REDASEL), Lagos, the publisher of *Nigerian Banking, Finance & Commerce (NBFC)*; a reference source on Nigeria’s financial and commercial sectors provided bulk of these financial reports of the banks investigated. Further, we personally obtained some of the audited annual financial reports in order to supplement and authenticate the data obtained from REDASEL Ltd.

Figures extracted from these audited financial reports were used to compute ROCE of the banks Pre and Post-mergers. ROCE is obtained by:

$$ROCE = \frac{\text{Profit Before Tax \& Interest}}{\text{Capital Employed}} \times 100. \dots \dots \dots (1)$$

To start with, three years mean ROCE were calculated for the 89 banks that existed before the consolidation. This computation of mean ROCE of the constituent banks that made up the post-merger banks was necessary so that we will be able to compare them with the ROCE of the bank that resulted from the mergers. These mean calculations were done only for the merged banks. For the control group, there was no need for group mean to find the mean ROCE as they were stand-alone banks.

3.3 Data Analysis

t – Statistic: Being a matched-sample comparison of the ROCE of the target group banks and the control group banks pre and post-mergers, the *t-statistic* was performed to evaluate the change in the ROCE of the target group compared to that of the control group. The choice of the *t-statistic* is justified on the assertions of Caves (1989) and Brunner (2001) to the effect that the key test by which the findings of an accounting study of post-M & A is proven is *t-statistic*, for it is able to avoid the problem of holding constant other factors that plague ex post studies of the effects of mergers and acquisitions.

In applying the t-statistic,

$\alpha = 0.05$, that is, the probability of committing an error.

$$t_c = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{s_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \dots \dots \dots (2)$$

$$s_1^2 = \frac{\sum (x - \bar{x}_1)^2}{n - 1}, \quad s_2^2 = \frac{\sum (x - \bar{x}_2)^2}{n - 1}$$

Where $s_p^2 = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}$

- s_1^2 = Variance of the target group
- s_2^2 = Variance of the control group
- \bar{x}_1 = Mean performance of the target group
- \bar{x}_2 = Mean Performance of the control group
- n_1 = Number of banks in the target group
- n_2 = Number of banks in the control group
- s_p^2 = Pooled variance of both groups
- t_c = t value calculated,

Decision rule: Reject H_0 if $t_c \geq t^\alpha_{n_1 + n_2 - 2}$

Having been used in comparing post-merger ROCE of the target group with that of the control group, t-statistic was also performed to further investigate the change in the ROCE of the target group (merged banks) following their mergers. At this juncture, the mean ROCE of the target group banks before merging was compared with their ROCE after mergers. This was performed in an attempt to obtain an independent picture of the effect of M & A on the ROCE of the banks after mergers.

3.4 Population and Sample of the Study

All the 25 banks that emerged following consolidation comprise the population of this study, although the number has gone down to 24 due to the merger of Stanbic Bank and IBTC Chartered Bank in late 2008. Specifically, 19 banks met the recapitalization target by merging, and these 19 banks should have been our research population. However, the six banks that made it without being involved in M & A constitute our control group, hence, the 25 banks. However, the exact population of this study is 24.

4.0 Results And Discussions

Using PASW-18, a variant of Statistical Package for Social Sciences (SPSS), we tested the hypothesis H_{01} : M & As do not enhance Return On Capital Employed (ROCE) for the banks involved by performing Paired Sample t-statistics with the Decision Rule: Reject H_{01} if $t_c > t_{1-\alpha/2, df}$. In other words, reject H_{01} if the value of $t_{computed}$ is greater than the t_{table} value or Probability of $P < 0.05$. Table 1 presents the results.

Table 1 summarizes the results of paired t-statistic (t-test) performed on ROCE for the target group comparing the mean ROCE before mergers with the mean ROCE after mergers. As the table illustrates, we reject H_{01} , implying that there were changes in ROCE after mergers. The paired differences indicate that these changes in performance after mergers were significant improvements on ROCE with 6.241% enhancement.

As well, Paired Sample t-statistics was performed on ROCE for the control group banks to test the hypothesis H_{02} : Consolidation does not have positive relationship with the ROCE of the control-group banks, with the Decision Rule: Reject H_{02} if $t_c > t_{1-\alpha/2, df}$. In other words, reject H_{02} if the value of $t_{computed}$ is greater than the t_{table} value or Probability of $P < 0.05$. Table 2 presents the results.

Table 2 demonstrates that the comparison of the ROCE of the control group banks before mergers with their ROCE after mergers. As the table reflects, we reject H_{02} because the control group banks experienced change in their ROCE after mergers. However, the t-table signifies that ROCE for the stand-alone banks changed for better as the t-table depicts positive paired difference of 13.065% after mergers.

MiniTab was employed to perform Independent Sample t-test to test the hypothesis; H_{03a} : There is no significant difference between the ROCE of the target group banks and the control-group banks before mergers, with the Decision Rule: Reject H_{03a} if $t_c > t_{1-\alpha/2, df}$. That is, reject H_{03a} if the value of $t_{computed}$ is greater than the t_{table} value or Probability of $P < 0.05$. The results are presented on table 3.

Table 3 summarizes the results of the independent sample t-test performed to compare the ROCE of the target group banks with that of the control group banks before mergers. The table displays that there are differences between the ROCE of the target group banks and the control of banks as we reject H_{03a} signifying that there were differences in the ROCE of the two groups even before mergers. As the paired difference reflects, the mean ROCE of the control group is significantly higher than the target group. Hence, the control group banks were outperforming the target group banks in terms of ROCE by 12.97% even before consolidation.

Independent Sample t-test was performed to test the hypothesis H_{03b} : There is no significant difference between the ROCE of the target group banks and the control-group banks after mergers, with the Decision Rule: Reject H_{03b} if $t_c > t_{1-\alpha/2, df}$. That is, reject H_{03b} if the value of $t_{computed}$ is greater than the t_{table} value or Probability of $P < 0.05$. Table 4 illustrates the results.

Table 4 presents the results of the comparison of ROCE of the target group banks and the control group banks. It shows that there is a difference in ROCE after mergers as we reject H_{03b} . As illustrated by the average difference on the table, the control group banks outperformed the target group banks in terms of ROCE by 6.11% after consolidation.

5.0 Conclusions and Recommendations

The study assesses whether or not shareholder value has been enhanced following wide-spread bank mergers in Nigeria. The comparison was done by studying the Return on Capital Employed (ROCE) ratio of the banks before and after consolidation. Generally, bank M & A has attracted immense attention not only from scholars, but also from government, business media, legislators, and the like. More so, M & As, especially in the banking industry will continue to remain at least, in academic discourse. Based on the results obtained from statistical analyses of the study data, we conclude that generally, bank M & As do not give rise to differentiated Return On Capital Employed.

Our findings do not differ much from those of some prior studies carried out on the effects of M & As on bank profitability. Bank M & As in Nigeria have fallen short of the popular expectations and pre-merger promises of enhancing shareholder value. Merged banks performed no better (in terms of profitability) than they would have in the absence of mergers.

A major challenge is inherent in bank M & As. It has been observed over time that it is one thing to merge; it is another thing entirely for post-merger banks to deliver on the pre-merger promises/expectations of improved financial performance. Thus, the study recommends that rather than focusing efforts on merely creating large banks that can compete regionally and globally by virtue of size, the study recommends that subsequent reforms of the banking industry should be geared toward creating enabling environment that will usher in banking efficiency which will in the long-run secure and increasingly enhance profitability of the banks. Besides large capital bases, banks need sustained enhancement of profitability to grow and be able to compete effectively at whatever level they have chosen, be it local or international.

Furthermore, subsequent reform efforts should be made to create better banks, not bigger banks. Banking industry regulators should be mindful of the danger inherent in producing large banks as such banks may become too large to save by tax-payers in the event of systemic crisis.

The study draws the attention of corporate leaders of Nigerian banks to an enduring illusion that has led most prior bank mergers to financial failure. Being seen to be large and perhaps prestigious via M & A is a dead-end illusion as observed in the literature and confirmed by our findings. The figures do not just add up automatically. Symbolically, it may be good to be large, it is better to be profitable, and best to be both, we recommend.

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Appendix

Table 1: Results of Paired Sample t-statistics performed on ROCE for Target Group (Before vs After M & As)

Paired Difference	t-computed	Probability	$t_{1-\alpha/2, df}$	Decision
6.241	3.515	0.001	$t_{0.975, 50} = 2.01$	Reject H_{01}

Source: Analysis of survey data

Table 2: Results of Paired Sample t-statistic Performed on ROCE for Control Group (Before & After Consolidation)

Paired Difference	t-computed	Probability	$t_{1-\alpha/2, df}$	Decision
13.07%	4.193	0.001	$t_{0.975, 14} = 2.145$	Reject H_0

Source: Analysis of survey data

Table 3: Results of Independent Sample t-test performed on ROCE for Target Vs Control Group (Before Mergers)

Target Group	Control Group	Average Difference	t-computed	Probability	$t_{1-\alpha/2, df}$	Decision
25.51%	38.48%	12.97%	53.9	0	$t_{0.975, 64} = 2.00$	Reject H_0

Source: Analysis of survey data

Table 4: Results of Independent Sample t-test Performed on ROCE For Target Vs Control Groups (After Mergers and Acquisitions)

Target Group	Control Group	Average Difference	t-computed	Probability	t-table ($t_{1-\alpha/2, df}$)	Decision
19.30%	25.41%	6.11%	2.35	0.026	$t_{0.975, 64} = 2.00$	Reject H_0

Source: Analysis of survey data