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RESEARCH ARTICLE

THE EFFECT OF BANK CONSOLIDATION ON BANK COST SAVINGS: EVIDENCE FROM SELECTED BANKS IN NIGERIA

Ani, W. Uchenna[a] , Ugwunta, O. David[b] and Imo G. Ibe[b]

[a]Department of Accountancy, School of financial studies, Institute of Management and Technology, Enugu, Enugu State, Nigeria

[b]Department of Banking and Finance, Renaissance University, Ugbawka-Agbani, Enugu, Enugu State,Nigeria

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ABSTRACT

Bank consolidation has been the major policy instrument adopted in correcting deficiencies in the financial sector in the world all over; and hence the 2005 concluded bank consolidation exercise in Nigeria. This study therefore, x-rayed the effect of bank consolidation on cost savings for consolidated banks in Nigeria. The research design is ex-post facto studying two periods before and after the 2005 concluded bank consolidation exercise in Nigeria. The Cost Income Ratio (CIR) was used as a proxy to measure cost savings for six banks quoted on the Nigerian Stock Exchange for a 10-year period (2000-2009). Descriptive statistics was used to analyze the operational variable (CIR). The sampled banks five years performance before the consolidation exercise was compared to the banks five years performance after the consolidation exercise. The paired sample t-test statistics was used to test the formulated hypothesis for a significant difference between the means of the two sample periods (pre and post consolidation) observed at two points in time. The findings revealed that the sampled banks recorded decreases and increases in the operating variable at various intervals of the pre and post consolidation periods. However, two banks had significant differences on costs saving. Accordingly, the study revealed that the 2005 concluded bank consolidation exercise in Nigeria has not achieved costs saving for all the consolidated banks in Nigeria. Therefore, forced consolidation is not the best option for reducing banks' operational cost.

INTRODUCTION

Banking sector reforms and recapitalization have resulted from deliberate policy in response to correcting perceived or impending banking sector crises. The consolidation of banks has been the major policy instrument being adopted in correcting deficiencies in the financial sector in the world all over (Somoye, 2008). Banking reforms have been an ongoing phenomenon around the world right from the 1980s, but it is more intensified in recent times because of the impact of globalisation which is precipitated by continuous integration of the world market and economies (Adegbagu & Olokoye, 2008). Banking reforms involve several elements that are unique to each country based on historical, economic and institutional imperatives. Government policy-driven bank consolidation rather than market-driven consolidation has been the process adopted by most developing economies in solving systemic distress in the banking sector. The time lag for the consolidation exercise however varies from nation to nation (Somoye, 2008). For example, what was termed "government guided" merger was a unique banking sector reform implemented in 2002 by the Central Bank of Malaysia BNM (Bank Negara Malaysia) guiding 54 depository institutions to form 10 large banks (Rubi, Mohamed and Michael, 2007). In Nigeria, the Central Bank of Nigeria in 2004, announced a 13-point reform agenda designed to enable the banking system develop the required flexibility to support the economic development of the nation by efficiently performing its function as the pivot of financial intermediation (Lemo, 2005). Of all the reform agendas, the issue of increasing shareholders' fund to N25 billion with a regulatory option to mergers and acquisitions and the need to comply before 31st December, 2005 generated so much controversy especially among the stakeholders.

This particular exercise having been achieved, this paper assesses the significant effect of the concluded 2005 banking sector consolidation in Nigeria on costs saving for the consolidated banks. The objective of this paper is to find out if there is an improvement in costs saving for consolidated banks as an effect of consolidation. To achieve the objective of this paper, the paper hypothesizes that the 2005 concluded bank consolidation has not led to any significant improvement in costs saving for consolidated banks. The question, one of the gains of consolidation is cost-saving efficiency achieved through economies of scale; to what extent have consolidated banks achieved this? Guided this paper, The rest of the paper is structured into five sections. Section two is the literature

Corresponding author: doctorani2010@gmail.com
Imoibe4real@yahoo.co.in; davidugwunta@gmail.com

review; section three presents the methodological framework while the discussion of results was in section four. The conclusion and recommendations are presented in the last section.

LITERATURE REVIEW

An early view of bank consolidation was that it makes banking more cost efficient because larger banks can eliminate excess capacity in areas like data processing, personnel, marketing, or overlapping branch networks (Somoye, 2008). The proponents of Bank consolidation believe that increased size could potentially increase bank returns, through revenue and cost efficiency gains. It may also, reduce industry risks through the elimination of weak banks and create better diversification opportunities (Berger, 2000). On the other hand, the opponents argue that consolidation could increase banks' propensity toward risk taking because of increases in size, capital and leverage and off balance sheet operations. Ogowewo and Uche (2006) argued that since capital is costly to raise (as compared say to pure debt), banks would be under pressure to generate higher returns from the additional capital, thereby forcing them to take on greater risks. In addition, scale economies are not unlimited as larger entities are usually more complex and costly to manage (De Nicoló et al., 2003).

Costs-saving or costs-efficiency is one of the gains of consolidation. Soludo (2004) points out that the small size of most of Nigerian banks, each with expensive headquarters, separate investment in software and hardware, heavy fixed costs and operating expenses, and with bunching of branches in few commercial centres--- lead to very high average cost for the industry and that this in turn has implications for the cost of intermediation, the spread between deposit and lending rates, and puts undue pressures on banks to engage in sharp practices as a means of survival. Mergers may improve efficiency particularly when weak, poorly managed banks are acquired by stronger, competently managed banks (Rubi, Mohamed & Michael, 2007). Shaffer, (1994) opine that large cost-efficiency gains are possible when more efficient banks merge with less efficient banks. Berger and Humphrey, (1992) finds out that an acquiring bank is more cost-efficient too, and makes post-merger gains in cost by restoring its inefficient targets to similar profitability. Cost efficiency can be achieved when there is a significant reduction in the cost of running a bank. However, whether such mergers and acquisitions lead to significant cost-efficiency through economies of scale is uncertain as some past empirical results provide mixed findings. Peristiani, (1997) and Akhavein *et al.* (1997) found no significant improvements in cost-efficiency in the US bank mergers. Similarly, BIS, (2001) reported a lack of evidence on the economies of scale and scope for large European banks.

METHODOLOGY

This paper employed the Ex Post Facto research design to compare two periods i.e. before and after the consolidation exercise. The model for the study is structured in a way to enhance comparisons of the pre and post periods, and to bring out whether any significant difference exist between the pre and post operational variable. In line with the approach adopted by Rubi, et al (2007) and Adegbagu & Olokoye, 2008 in their works, this paper made use of handpicked data from the balance sheet and income statements of sampled banks. The data were extracted from the published annual reports and statements of accounts of banks quoted on the Nigerian Stock Exchange. To avoid encountering too many gaps in data input, the time frame for the study was truncated to a ten year period i.e. 2000 to 2009, and priority was given to banks that have been quoted on the Nigerian Stock Exchange before the consolidation exercise. In other words stand-alone banks, and banks whose merged and/or acquired entities have been quoted on the Nigerian Stock Exchange five years before the consolidation exercise constitutes our sample. Consequently, using purposive sampling, six banks which represents 25% of the consolidated banks in Nigeria constitutes our sample. The banks are: - three stand-alone banks (Zenith Bank Plc.; Guaranty Trust Bank Plc. And Ecobank Plc); and three banks whose merged and/or acquired entities have been quoted on the Nigerian Stock Exchange five years before the consolidation exercise (Fidelity Bank Plc.; Wema Bank Plc.; and FinBank Plc.).

Our hypothesis was tested using CIR (Cost Income Ratio), a measure of cost efficiency as proxy. The CIR measures the overall costs of running the bank as a percentage of the income generated before provisions. The lower the ratio, the more efficient is the bank (Rubi, Mohamed and Michael, 2007). This is calculated thus:

$$CIR = \frac{TO}{NII+OOI} \quad \ldots\ldots\ldots\ldots\ldots\ldots \text{(i)}$$

where;

TO	=	Total Overheads which is interest expenses added to operating expenses.
NII	=	Net Interest Income which is interest income less interest expenses.
OOI	=	Other Operating Income includes fee and commission income, foreign exchange trading income, underwriting and trusteeship income, and income from other investments.

In an attempt to test the significance effect of the 2005 concluded bank consolidation exercise on bank costs saving, this study first of all used descriptive (narrative) statistics to analyse and evaluate CIR for the five year period each of the pre and post-performances of sampled banks. In testing our hypothesis, we employed the parametric statistical pooled variance/ paired sample t-test model. This statistical tool focuses on the significant difference of chosen operational variable between two sample means observed at two points in time. In this version, the two samples are combined (pooled) to get a pooled variance and base the standard error of the difference in means on that single estimate; the resulting t can be compared directly to critical values from the t distribution table.

DISCUSSION OF FINDINGS

Able one below is the five year CIR for the pre-consolidation period (2000-2004) and it shows at a glance that there were changes in the combined banks performances throughout the period. However, only Zenith Bank Plc recorded a steady reduction in cost up till 2003. Fidelity Bank Plc recorded reductions in cost between 2002 and 2003 and an increase by

the end of the period in 2004. The rest recorded reductions in cost in one year or the other in the period under review. The highest reduction in cost of 19.66% was by Finbank Plc in 2001. A reduction from 1.17 to 0.94 but henceforth recorded steady increase in cost throughout the rest of the period.

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In the post consolidation period Cost Income Ratio (CIR) (2005-2009) after the conclusion of the consolidation exercise, Zenith Bank Plc, Wema Bank Plc and Finbank Plc recorded increases in cost of 0.81, 1.88 and 1.62 as shown above in table two from the preceding year while the rest achieved cost reduction in their operations at the same time. However, the huge cost savings made by the remaining three banks in 2005 was able to offset the increases recorded by the above mentioned three banks to achieve costs saving for the year. As such, the recorded increases could be as a result of activities of the banks in raising fresh capital to meet up with the regulatory specified twenty five billion naira capital base that has 31st December, 2005 as deadline. Year 2001 is the best performed year for CIR as four banks recorded cost savings

Table 1: Five years Pre – Consolidation Cost Income Ratio (CIR) 2000 - 2004

Banks	2000	2001	% Change 00/01	2002	% Change 01/02	2003	% Change 02/03	2004	% Change 03/04
ZENITH	0.99	0.90	(9.09)	0.82	(8.89)	0.79	(3.66)	0.83	5.06
GTB	1.25	1.10	(12)	1.12	1.82	1.13	0.89	1.02	(9.73)
ECOBANK	1.04	1.00	(3.85)	1.12	12	1.00	(10.71)	1.19	19
WEMA	0.87	0.89	2.30	0.77	(13.48)	1.00	29.87	1.05	5
FIDELITY	1.45	1.53	5.52	1.33	(13.07)	1.15	(13.53)	1.21	5.22
FINBANK	1.17	0.94	(19.66)	1.08	14.89	1.13	4.63	1.42	25.66
TOTAL	6.77	6.63	(36.78)	6.24	(6.73)	6.2	7.49	6.72	50.21
AVERAGE	1.13	1.06	(6.13)	1.04	(1.12)	1.03	1.25	1.12	8.37

Source: Author's computations from data generated from sampled banks' annual reports

Table 2: Five years Post – Consolidation Cost Income Ratio (CIR) 2005 - 2009

Banks	2005	% Change 04/05	2006	% Change 05/06	2007	% Change 06/07	2008	% Change 07/08	2009	% Change 08/09
ZENITH	0.81	2.41	0.87	7.46	0.91	4.60	0.94	3.30	1.09	15.96
GTB	1.01	(0.98)	0.91	(9.90)	0.93	2.20	0.73	(21.51)	0.77	5.48
ECOBANK	0.88	(26.05)	0.84	(4.55)	0.86	2.38	1.15	33.72	----	----
WEMA	1.18	12.38	1.02	(13.56)	0.89	(12.75)	(0.51)	(157.30)	(5.69)	1,015.68
FIDELITY	1.14	(5.79)	0.92	(19.30)	1.00	8.70	0.70	(30)	----	-----
FINBANK	1.61	13.38	3.37	109.32	1.07	(68.25)	1.13	5.61	1.89	67.26
TOTAL	6.63	(4.65)	7.93	(39.9)	5.66	(63.25)	4.14	(166.18)	(1.99)	(582.3)
AVERAGE	1.11	(0.78)	1.32	(6.65)	0.94	(10.52)	0.69	(27.70)	(0.49)	(97.05)

Source; Author's computations from data generated from sampled banks' annual reports

Table3: Paired Samples t- test Statistics

		Paired Differences					t_c	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	ZenithpreCIR – ZenithpostCIR	-.05857	.16616	.07431	-.26489	.14774	-.788	4	.475
Pair 2	GTBpreCIR – GTBpostCIR	.25748	.09111	.04075	.14435	.37061	6.319	4	.003
Pair 3	ECOBANKpretCIR – ECOBANKpostCIR	.10858	.18162	.09081	-.18042	.39758	1.196	3	.318
Pair 4	WEMApreCIR – WEMApostCIR	1.53806	2.99808	1.34078	-2.18455	5.2606	1.147	4	.315
Pair 5	FidelitypreCIR – FidelitypostCIR	.42666	.13674	.06837	.20907	.64425	6.240	3	.008
Pair 6	FinbankpreCIR – FinbankpostCIR	-.03850	1.12550	.50334	-1.4360	1.35900	-.076	4	.943
	Total	2.23371	4.69921	2.11836			14.038		2.062

Source; SPSS computation using data generated from sampled banks annual reports

below the sample average of 1.06 while achieving the highest cost saving of (36.78) % for the combined banks. Year 2004 recorded the highest positive total increase in cost of 6.72 which is about 50.21% increase from the preceding year. In the post consolidation period Cost Income Ratio (CIR), at the conclusion of the consolidation exercise in 2005, Zenith Bank Plc, Wema Bank Plc and Finbank Plc recorded increases in cost of 0.81, 1.88 and 1.62 as shown above from the preceding year while the rest achieved cost reduction in their operations at the same time. However, the huge cost savings made by the remaining three banks in 2005 was able to offset the increases recorded by the above mentioned three mentioned banks to achieve costs saving for the year. In 2007, WEMA Bank Plc and FinBank Plc recorded decline in CIR of 0.89 and 1.07 at (12.75) % and (68.25) % respectively. This was able to offset the increases recorded by the remaining banks and the combined banks achieved cost efficiency in that year. However, in 2008, GTB Plc, WEMA Bank Plc and Fidelity Bank Plc recorded declines in CIR, while the rest recorded positive CIRs. As a matter of fact, Wema Bank Plc achieved the best cost reduction in 2008 by recording a negative value coefficient of (0.51), the only negative coefficient for the post-consolidation period. The worst increase in cost to (5.69) though negative, of about 1,015.68% increase was also recorded by Wema Bank Plc in 2009 while; the least increase in cost income ratio to 0.93 in 2007 with a 2.20% increase was recorded by GTB Plc. The least decline CIR to 0.84 from the preceding year CIR of 0.88 of 4.55% was recorded by Eco bank in 2006. The best performed average in cost for the period was year 2008 with an average CIR of 0.69. Year 2009 could have been adjudged the best performed year in cost saving if not for the missing values for ECOBANk Plc and Fidelity Bank Plc.

In testing the hypothesis, looking at the t-test result above, GTB Plc and Fidelity Bank Plc t_c = 6.319 and 6.240 respectively > t_t = 2.1318 for GTB, and 2.3534 for Fidelity bank. This result shows that there is a significant difference in the pre and post CIR for GTB Plc and Fidelity Bank Plc. Thus, the consolidation exercise had an effect on the CIR for the two banks. This result is further strengthened with the 2-tailed significance value of 0.003 and 0.008 respectively of the banks being < 0.05 level of significance. Zenith Bank Plc, ECOBANK Plc, WEMA Bank Plc and Finbank Plc t_c = -0.788, 1.196, -1.147 and -0.076 respectively < t_t = 2.1318 for Zenith Bank Plc, WEMA Bank Plc and Finbank Plc, and 2.3534 for ECOBANK Plc. There is no significant difference in the pre and post CIR for Zenith Bank Plc, ECOBANK Plc, WEMA Bank Plc and Finbank Plc. Thus, the consolidation exercise had no effect on the CIR for the four banks. This result is further strengthened with the 2-tailed significance value of 0.475, 0.318, 0.315 and 0.943 respectively of the four banks > 0.05 level of significance. From the above test therefore, the results suggests that the 2005 concluded consolidation has not led to any significant change in cost saving of the sampled banks given the total paired mean difference of 2.23371 at the total significant level of 2.062. This will lead to a type II error, as the problem may arose due to the small number of years used (5 years) and the resultant small degree of freedom. As rightly pointed out by Sani (2009) citing (Fagoyinbo, 2004), the tighter the degree of freedom (df) used, the closer is the t-distribution towards the shape of normal distribution. Theoretically, (the) t-distribution is equal to normal distribution when the df is infinite in size (i.e. over 30 or more). For this reason, we fail to accept Ho and thus conclude that the cost- efficiency/saving of two banks namely; GTB Plc and Fidelity Bank Plc used as case study decreased significantly after the 2005 concluded banking consolidation in Nigeria while those of the remaining four banks increased significantly.

CONCLUSION AND RECOMMENDATIONS

Most studies in Nigeria on consolidation in the past have limited their study to measure the effect of consolidation on profitability only using various profitability measures. Particularly, this work has gone beyond the measure of profitability to look at other bank performance measures. This cost efficiency/saving as measured by Cost Income Ratio (CIR). The objective of this paper which was to find out if there is significant saving in the costs of doing business for banks resulting from consolidation due to economies of scale has been achieved. The study revealed that the sampled banks recorded increases and declines in Cost Income Ratio (CIR) a measure for cost efficiency in one or several year periods or the other in the post consolidation period. In effect, all the sampled banks except GTB Plc and Fidelity Bank Plc failed to achieve cost efficiency in their operations in the post consolidation period as contained in appendix three below. This is also strengthened by the paired sample t-test result of the two banks at 5% significance level having .003 and .008 significance values respectively. However, all the sampled banks as a component achieved cost reduction in the post consolidation period with their Cost Income Ratio at N4.8623 and N0.8108 for composite total and average when compared to the ₦7.0961 and ₦1.182 for composite and average Cost Income Ratios of the pre consolidation period respectively. Banks should improve their total asset turnover and diversify their investment in such a way that they can generate more income. The government has a role to play in providing necessary infrastructural facilities to ensure that the costs of doing business in Nigeria are reduced drastically to allow banks increase their income. Banks should put in place good corporate governance, effective internal cost control and loan administrative strategy to eliminate unnecessary cost increments. Policies makers, regulators and supervisors of the Nigerian banking sector should come up with such other policies that will enhance cost saving /efficiency.

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