

## Bank capitalization and market share in the Nigeria deposit banks (1986-2006)

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**Abstract:** This study investigates the impact of shareholders' fund on bank performance (market share) in the Nigerian deposit banks (1986-2006). The study captured performance (market share) and employed cross sectional and time series of bank data obtained from Central Bank of Nigeria (CBN). The formulated models were estimated using ordinary least square regression method. The study found a strong relationship between bank capital funds and bank deposits, loans and advances (proxies for market concentration). The result shows that shareholders' fund and total assets of the banks have positive and significant impact in influencing the level of total deposits. The implication of this study, among others, is that adequate shareholders fund can serve as a veritable stimulant in strengthening the performance of Nigeria commercial banks and also heighten the confidence of customers especially in this era of global economic melt-down that has taken its toll in the Nigerian financial system.

**Keywords:** Concentration theory, Concentration Ratio, Market share.

### 1.0 Introduction

Bank capital can be seen in two ways. Narrowly, it can be seen as the amount contributed by the owners of a bank (paid-up share capital) that gives them the right to enjoy all the future earnings of the bank. More comprehensively, it can be seen as the amount of owners' funds available to support a bank's business (Athanasoglou, Brissimis

and Delis et al., 2005). While the growth in the financial services sector is experiencing geometric progression and a boom, the other sectors of the economy, such as the productive sector are contracting and the whole economy continued to plunge deeper into recession. To gain a fair share of the market in a highly competitive environment, the financial services sector especially the banks need to be innovative. In the 1990's, the financial

sector witnessed the development of some innovative products and services, massive investment in information technology and a continuously re-engineering of financial instruments to meet the needs of discerning customers by banks that wanted to maintain their leading position and competitive edge.

Consolidation and strengthening of the banking system were taken to constitute the first phase of the reforms designed to ensure a diversified, strong and reliable banking sector which will ensure the safety of depositors' money, play active development role on the Nigerian economy and as competitive players in the African regional and global financial systems. The goal of the reforms is to help banks become stronger players, and in a manner that will ensure longevity and hence higher returns to their shareholders over time and impact positively on the Nigerian economy. The beneficiaries in the Nigerian economy will include the ordinary men and women who can put their deposits in the banks and have a restful sleep; the entrepreneurs who can now have a stronger financial system to finance their businesses; and the Nigerian economy itself which will benefit from internationally connected and competitive banks that would also mobilize international capital for Nigerian development. In United States of America (USA) there were over 7000 mergers between 1980 and 1998. The nineties recorded the largest mergers in the banking history of the US as the number of banks in the US declined by more than one third between 1980 and 1997. Consequently, the proportion of the banking assets declined sharply from 75 percent in 1980 to nearly 50 percent in 1997. The same trend occurred in the United Kingdom and other European countries (Boyd et al, 1993).

In the period 1997 -1998, 2003 cases of bank mergers and acquisitions took place in the Euro area. In 1998, a merger in France resulted in a new capital base of \$688 billion, while the merger in Germany resulted to a capital base of \$541 billion. In many emerging markets including Argentina, Brazil and Korea, bank capitalization/consolidation became prominent as banks try to reposition their operations in order to cope with the growing challenges in the globalized banking systems. Most mergers that took place in countries were as a result of the government efforts to restructure inefficient banking systems (as in many Latin American countries), or from intervention following banking crises (as in Korea and Southeast Asia).

Just like Nigeria, in Asia the capitalization/consolidation of the financial services was more or less government-led rather than market-driven. Bank mergers in this region were motivated by the need to strengthen capital adequacy and promote financial viability of many smaller, often family owned banks that were affected by the 1997-1998 crisis. Soludo (2004) posited that:

"In Malaysia, the first round of bank consolidation was initiated by the government in 2000, when it imposed a \$526 million capitalization requirement on banks. The then 54 existing banks were ordered to merge into 10 core groups, so called anchor banks. The government has fully liberalized the sector in 2007. In Indonesia, four of the seven state banks existing before the crisis were consolidated into a new state bank (Bank Mandiri), which now controls about a quarter of the total commercial bank deposits. In Singapore, a country with about three million people, banks are being consolidated to about six and further moving down to three,

with the second largest having a capital base of about \$67 billion’.

The concentration ratio gives us an idea of the percentage of the total market and how it is controlled by the biggest 3, 4 and 5 firms in an industry. Hence, if for the Nigerian banking industry CR3 = 80, then we can say the three biggest banks in Nigeria control 80% of the market share in Nigeria. The examples below on Table 1a shows United States aggregate economic concentration of Fortune Magazine’s data for 1988 as cited in (Bronfenbrenner et al :1990). Part 1a list the sales of the 10 largest industrial firms in the

United States and their cumulative percentage of the sales of the 500 largest U.S industrial firms. General Motors (one-fifth of 1 percent of the 500 largest firms) accounted for 6% of their sales, one percent of these firms (the top five) accounted for nearly 20% of the sales of the top 500, and 2% accounted (of the 10 firms listed) accounted for 29 percent of their sales. Similarly, for Part 1b commercial banking sector’s aggregate concentration, as measured in assets, is quite high. The five firms listed (5 percent of the largest 10 firms) accounted for 26% of their total assets.

Table 1a: United States Industrial Sector

Rank (by Sales)	Company	Sales (in millions of dollars)	Cumulative Percentage of 500 largest
1	General Motors	121,085	6.0
2	Ford Motors	92,446	10.6
3	Exxon	79,557	14.5
4	I.B.M	59,681	17.4
5	General Electric	49,414	19.9
6	Mobil	48,198	22.3
7	Chrysler	35,473	24.0
8	Texaco	33,544	25.7
9	E.I. Du Pont de Nemours	32,514	27.3
10	Phillip Morris	25,860	28.6

A Sample of Fortune Magazine’s Data for 1988 Cited in Economics (1990) p.6

Two common measures of concentration, the four-bank concentration ratio, CR4, and the Herfindahl-Hirschman Index (HERF), are used. CR4 is defined as the ratio of the total deposits of the four largest banks to the total deposits of all the banks in a given year. CR4 should be closed to 0 for a perfectly competitive market and 100 for a monopoly.

HERF is defined as the sum of squared market shares of deposits of the sample of banks in a given year. The index is slightly greater than 0 for a perfectly competitive market and 100 for a monopoly. HERF takes into account both the number of banks and the inequality of market shares. Generally, the more banks there are in a market, the lower is the value

of HERF, *ceteris paribus*. HERF increases as the market shares of a given number of banks become less equal (Waldman and Jensen, 2001). However, Hay and Morris (1991) criticized the HERF measures because it uses a particular weighting between the inequality of the firms' market share and the number of firms. Nonetheless, HERF and CR are the most common used in virtually all the published studies. In this paper, CR4 and CR10 are employed to depict the market share in the Nigeria banking industry with respect to deposit, asset, loans and advances, capital

etc. Bronfenbrenner et al (1990) stated that HHI is an alternative measure of market concentration, which includes all of the firms in a market and gives proportionately greater weight to the market shares of the larger firms in the market. It takes into cognizance of both the number of firms in the market and their relative size. Hence, if for the Nigerian banking industry CR3 = 80, then we can say the three biggest banks in Nigeria control 80% of the market share in Nigeria. A Concentration Curve provides us a visual aid in measuring the concentration.

*Table 1b: U.S Commercial Banking Sector*

Rank (by assets)	Company	Assets (in millions of dollars)	Cumulative Percentage of 100 Largest
1	Citicorp	207,666	9.6
2	Chase Manhattan Corp	97,455	14.1
3	Bank America	94,647	18.5
4	J.P Morgan & Co.	83,923	22.4
5	Security Pacific Corp.	77,870	26.0

*A Sample of Fortune Magazine's Data for 1988 Cited in Economics (1990) p.653*

In this paper, Market Concentration (Mc) is measured by market share of bank assets, bank credit and bank deposit. To what extent does capitalization lead to increase in market concentration so that banks can control sizeable market share? This paper precisely will determine the relationship between bank capitalization and market concentration in order to find out if it has enhanced competition. Section 1 above discusses the introduction; Section 2 examines the theoretical framework and literature review while Section 3 discusses the method of

analysis. Section 4 and 5 dwells on data presentation and implication of findings/results. Section 6 ends the paper with conclusions and recommendation.

## 2.0 Theoretical framework and literature review

### 2.1 Concentration Theory

Concentration refers to the degree of control of economic activity by large firms Sathye (2002). The increase and magnitude of concentration levels could be due to

considerable size enlargement of the dominant firm(s) and/ or considerable size reduction of the non-dominant firm (s). Similarly, curtailment of the concentration levels could be attributed to considerable size reduction of the dominant firm (s) and/ or considerable size enlargement of non-dominant firm (s) Athanasoglou et al (2005). Bank concentration theories and pro-deconcentration theories exist in the literature and Nigerian banks capitalization/consolidation exercise takes its roots from these theories. Protagonists of banking sector concentration posit that economies of scale stimulate bank mergers and acquisitions (increasing concentration), so that increased concentration goes hand-in-hand with efficiency improvements Demircuc-Kunt and Levine (2001). In his study, Boyd and Runkle (1993) examined 122 US bank holding companies and found an inverse relationship between size and the volatility of asset returns. In the US situation consolidation was voluntary while in the Nigerian case the consolidation exercise was by compulsion. In Allen and Gale (2000); Beck, Demircuc-Kunt and Levine (2004) their theoretical arguments suggest that a concentrated banking sector with many small banks is more prone to financial crises than a concentrated banking sector with a few large banks.

In the literature of finance, there are cases that link bank capitalization and market concentration especially where institutional behaviours by regulatory has pushed for a policy of minimum capital requirements. There are those by (Berger, Demsetz and Strahan, 1999); Shih (2003); Studart (2001, 2003), Yacaman (2001). For instance, Studart (2001, 2003) found that four Latin American countries' effort towards instituting an efficient and competitive banking pushed for a

policy of concentration in the period (1997-1998). This was facilitated by more effective supervision by the apex banks. The tightening of the regulatory environment resulted in "more international and more concentrated banking sector" Studart, 2003). Therefore, in this study, the relationship between bank capitalization and market concentration (market share) in the Nigerian banking industry will be investigated. The issue of bank capitalization which often metamorphose into consolidation of banks around the globe has fuelled an active policy debate on the impact of consolidation on financial stability, Beck, Demircuc-Kunt and Levine (2003), Boyd and Graham (1991 and 1998). In the literature, concentration levels have been a major determinant of banking system performance by way of efficiency. Berger, et al (1995) find evidence that the increase in the proportion of banking industry assets controlled by the largest banking organizations in the 1990s, due to the liberalization of geographic restrictions on banking in the United States, may have been responsible for part of the credit crunch observed in 1989-1992. Peek and Rosengren (1996), combining a single cross-section data on lending businesses in the New England states for 1994 with some information on mergers and de novo entry, find that after big banking organizations merged with smaller organizations, the consolidated organization typically reduced the amount of small business lending that was conducted earlier by the acquired institution.

Reduced concentration in a banking market results in increased competition among banks and vice-versa. Concentrated banking systems contribute to enhanced performance of the banks profit and also lower bank fragility. Enhanced profits provide a

bulwark against adverse shocks and increase the franchise value of the bank, reducing incentives for bankers to take excessive risk. In addition, a few large banks are easier to monitor than many small banks, so that regulatory control of banks will be more effective and the risks of contagion less pronounced in a concentrated banking system, Beck, Demirguc-Kunt and Levine (2003). The protagonists of this 'concentration- stability' view opined that larger banks can diversify better so that banking systems characterized by a few large banks will tend to be less fragile than banking systems with many small banks, Allen and Gale (2003). The present structure of Nigerian banking industry (commercial banks) is a clear demonstration of their strength when compared to the situation before 2005 bank capitalization in Nigeria. Therefore, we can say that there is a linkage between adequate capital and market share. Capital has a big role to play in helping bank to compete effectively. The Pro-Deconcentration theories such as Chong (1991) in his finding indicate that bank consolidation tends to increase the risk of bank portfolios. The proponents of banking sector deconcentration argue that concentration will intensify market power and political influence of financial conglomerates, stymie competition and access to financial services, reduce efficiency, and destabilize financial system as banks become too big to discipline and use their influence to shape banking regulations and policies (Demirguc-Kunt and Levine: 2000); Beck, Demirguc-Kunt and Levine (2004) and Bank for International Settlements (2001). On the one hand excessive competition may create an unstable banking environment, insufficient competition and contestability in the banking sector may breed inefficiencies. In

concentrated banking systems, bigger, politically connected banks may become more leveraged and take on greater risk since they can rely on policymakers to help when adverse shocks hurt their solvency or profitability.

Similarly, large, politically influential banks may help shape the policies and regulations influencing banks activities in ways that help banks, but not necessarily in ways that help the overall economy. For instance, powerful banks may argue against granting generous deposit insurance since that levels the playing field for smaller banks that do not enjoy the too-big-to-fail policy of most governments in economies where concentration levels are high. But it can also reduce the number of banks. According to Demirguc-Kunt and Levine (2000) if concentrated powerful banks unduly influence the formation of policies and regulations, this may hinder political integrity and reduce tax compliance. Advocates of concentrated banking structure noted that larger banks frequently receive subsidies through implicit 'too big-to-fail' policies that small banks do not enjoy. According to Boyd and Runkle (1993), this occurs when regulators fear potential macroeconomic consequences of large bank failures. Capitalization experiences in some of the countries reviewed has taken the form of consolidation.

### 3.0 Method of analysis

This section tries to capture empirically the relationship between bank capitalization and market share. When we speak of bank capitalization we are referring to Shareholders. Therefore, our equation looks at the extent to which shareholders funds and total assets has facilitated/enhanced market share of these Nigerian deposit banks.

Further, the crux of this paper is to find how bank capitalization and consolidation in Nigeria make funds available for the realization of adequacy of capital and performance (market share). Obviously, we can only look at a number of years given the fact that bank consolidation took place only five years ago. This is what makes it impossible to make use of time series analysis because we have only five years to seriously discuss issues. This is why the use of panel data is preferred in this exercise to time series analysis. Also, we have not used cross sectional data analysis in this paper because it is not possible to complete set of data on any bank for any particular year if only because merger has taken place randomly and banks have also come into existence randomly. The panel data methodology provides a useful answer to all these. Hence, the choice. This paper uses the econometric approach in estimating the effect and to be specific it uses the E-view software employing panel of data.

### 3.1 Population and Sample

The population of this research is drawn from the Nigerian banking industry (Nigerian deposit banks) referred to as the conventional banks because they are deposit-taking institutions. This is because they dominate the financial sector in terms of number and coverage. Despite the involvement of other financial institutions such as non-bank financial institutions - insurance companies, development banks, finance houses, etc in the intermediation process, commercial banks still control the major proportion of the nation's deposits and savings. There were eighty-nine commercial banks in Nigeria before the 2005 bank recapitalization exercise and the number has been reduced to twenty-five banks after consolidation and

to 24 (after merger of IBTC & Stanbic bank to Stanbic-IBTC) in 2008. Of the twenty – four banks, four of them that is: Unity bank, Sterling bank, Spring and Skye banks are new creation of mega banks. A sample size of fourteen out of the twenty four commercial banks was employed in the study. The sample (of fourteen commercial banks) was drawn from both the old and new generation banks using the Stratified sampling technique based on simple random sampling supported by Judgment Sampling (See table 2). The selection process is restricted to banks quoted in the Nigerian Stock Exchange Daily official List (SEDOL). The sample drawn from the population was grouped into categories based on the size of their capital as at the 2006. The sample size consists of both old generation and new generation banks. Banks that commenced operation before 1988 are old generation banks while those that commenced operation from 1989 are new generation banks. Amongst others new generation banks started aggressive marketing a departure from armchair banking which old generation banks were noted. New generation banks also introduced new technology for efficient service delivery change. There is a modified sample size for banks in this study. Since this study is between 1986-2006, banks that are not quoted are eliminated because their data are not readily available. During the field work, it was observed that these banks had no data bank for their Annual financial statements. Hence, such banks are not considered. Thus in our sample size banks such as Nigerian International Bank, Standard Chartered Bank, Equatorial Trust bank that are not (listed) quoted were eliminated and this reduced our population of study to twenty-one. This represents 14/21

(67%) of the quoted banks in Nigeria. The study analyses the data as contained in the financial report of 14 commercial banks out of the 24 banks operating in Nigeria as at the end of 2006, representing about 60% of the commercial banks and about 67% of the quoted banks. The bank data were obtained from CBN Banking Supervision and Annual Reports, (2006-2007) and Annual financial Statements from various years of the selected banks for the years 1986 -2006 are used for the analysis. The end of the cut-off date represent just one year after the bank consolidation mandate of 2004 by the Central Bank of Nigeria which took effect on 31st December, 2005. The study of bank capitalization and performance thus covers the period from the structural adjustment program of 1986 to 2006. The period of 1986 was the beginning of bank deregulation and liberalization (more banks were licensed) while we projected from 2005 the commencement year of the study to a cut-off date of 2006 (one year after bank consolidation) when financial statements of banks are expected to be available. Audited bank financial statements most time fall in arrears.

As stated earlier, this study employed the Stratified Sampling Technique. In stratified sampling, the population is categorized into groups that are distinctly different from each other on relevant variables. Each group is called stratum (plural strata). In applying stratified sampling, we categorized the population and stratified using bank capital (See table 2) below. As stated earlier, this study employed the Stratified Sampling Technique. In stratified sampling, the population is categorized into groups that are distinctly different from each other on relevant variables. Each group is called stratum (plural strata).

In this study, the elements in a particular stratum are the same with respect to the

relevant parameter (bank capital). The banks are grouped into stratum and were selected using simple random sampling supported by judgment sampling (non-probability) methods. Our table above shows that 11 banks (9 banks excluding non-quoted banks) fall into the frequency of bank capital between N25 < N34.9. This means that  $2/3$  multiplied 9 gives approximately 6 which were selected from the first stratum. The name of nine banks were written on a piece of paper, wrapped and put in a tray from where they were picked. The six out of the nine banks picked are Access bank, Fidelity bank, First Inland bank, Wema bank, Spring bank and Diamond bank. However, Spring bank was dropped because the data is only for one year (that is 2006) and would not be very useful. Using Judgment sampling an additional bank that is Afribank was selected to complete our simple random sampling of  $2/3 \times 9 = 6$  in the first stratum of N25 < N34.9 billion frequency.

The remaining eight (8) out of the twelve (12) banks were also selected by writing the names of the banks on a piece of paper, wrapped and put in a tray from where they were picked. Our table above shows that of the 13 banks (12 banks excluding non-quoted banks) fall into the frequency of bank capital between N35 billion and above that is  $2/3$  multiplied 12 gives 8. The following banks were picked Oceanic bank, Guaranty Trust bank, Intercontinental bank, First bank of Nigeria, Union Bank of Nigeria, United Bank, Zenith and IBTC/Stanbic bank

At the of end of the selection process, 60% that is six (6) out of the nine (9) banks fall into the frequency of between N25 billion < N34.9 billion while 72% that is eight (8) banks out of the twelve (12) banks fall



into the frequency of between N35 billion and above. The selection process picked 50% (seven) of the old generation banks and 50% (seven) of new generation banks.

*Table 2: Population of the study*

S/N	Name of Banks	Frequency of bank Capital	Bank Capital "billion"	Remark
1	Access	"	28.8	
2	Bank PHB	"	28	
3	Fidelity	"	25.6	
4	FCMB	"	25.2	
5	ETB	"	28.4	N.Q.B
6	First Inland	"	29.4	
7	Standard Chartered	"	26	N.Q.B
8	Spring	"	25	
9	Afribank	"	26	
10	Wema	"	34.8	
11	Diamond	"	34.7	
12	GTB	"	36.4	
13	Sterling	"	35	
14	NIB	"	35.2	N.Q.B
15	Oceanic	"	37.1	
16	Ecobank	"	35.3	
17	Skye	"	37.7	
18	Unity	"	35	
19	Intercontinental	"	53	
20	FBN	"	58.9	
21	Zenith	"	93	
22	UBA	"	47	
23	UBN	"	95.6	
24	IBTC/Stanbic	"	60	

Source: CBN Banking Supervision Annual Report 2006 And 2007  
 N.Q.B = Non-Quoted Banks

**3.2 The Panel Data Method**

Instead of using time series data or a cross section of banks, this study looks at a panel data specification for individual banks. In Cross section analysis, data are collected

across units of observation at a given point in time. For cross section unit we observe the same attribute on different people, geographical units, etc using same year. For example, one can collect data on total deposits of banks

in say 2006. Here the variation is across the units, that is different banks and not for different years, say time. In Time series, data span across time a horizon usually on quarterly or yearly basis. An example is the total deposits of First Bank from 1986-2006 as could have been used in this study. In this case the variation is over time.

Panel data or data set is a technique that combines the features of both time series and cross section methods. For example, total deposits of banks (one of our explanatory variables) in Nigeria from 1986-2006 as used in this study. Thus, panel data has the features of time series and cross section.

*Table 3: Aggregate Concentration Ratio of Ten Big Banks in the Banking Industry (Using % Method)*

YEAR	TA (MSP)	TCP (MSP)	TD (MSP)	L&A (MSP)	SAMPLED BANKS	Banks
1986	11.28	11.22	11.16	11.35	1	29
1987	33.58	65.75	50.4	32.8	5	34
1988	40	73.14	64.39	38	5	42
1989	45.18	69	82	41	8	47
1990	42	51	70	32	9	58
1991	38	52	67.38	24	10	65
1992	40	41	70	32	10	65
1993	40.4	66.33	63.54	37.8	10	66
1994	44	89	70.23	27.39	10	65
1995	43	95	81.68	30.4	10	64
1996	53.25	95	87	37.87	10	64
1997	65.87	81	86	36.67	10	54
1998	54.8	63.77	83.37	38.1	10	54
1999	49.68	67	77.27	37.28	10	54
2000	47.8	49.3	75.42	41	10	54
2001	43.59	39	71.97	27.88	10	90
2002	43	42.11	61	32	10	90
2003	47	43.3	71	31.5	10	89
2004	42.7	60.6	66	34.43	10	89
2005	53.11	51	77	39.6	10	89
2006	67	54	87	55.47	10	25

*Source: Computed from bank annual report and financial statement of the selected banks*

**4.0 Data Presentation**

Table 3 and 4 (Aggregate Concentration ratio in the banking industry), gives us an

overview by percentage of the market share and by extension market concentration of the ten (10) and four (4) big banks in the Nigerian deposit banks for the period under evaluation.

*Table 4: Concentration Ratio of Four Big banks in the Banking Industry (Using %)*

YEAR	TA (MSP)	TCR (MSP)	TD (MSP)	L&A (MSP)	BIG 4 (MSP)	BANKS
1986	11.28	11.22	11.16	11.35	1	29
1987	32.91	65.74	49.21	32.03	4	34
1988	39.73	71.7	62.37	32.6	4	42
1989	42.79	65.33	72.56	39.9	4	47
1990	39.11	46.11	64.82	30.56	4	58
1991	35.11	44.65	63.27	16.66	4	65
1992	36.06	34.79	65.44	28.89	4	65
1993	36.44	55.19	58.84	33.08	4	66
1994	37.2	67.28	60.65	22.56	4	65
1995	42.14	66.54	72.93	23.11	4	64
1996	44.03	78.68	75.72	29.83	4	64
1997	54.6	54.44	71.88	22.48	4	64
1998	44.27	46.62	68.25	27.32	4	54
1999	39.02	42.86	62.63	26.07	4	54
2000	37.23	37.18	60.94	27.52	4	54
2001	33.1	26.32	56.57	18.97	4	90
2002	30.95	27.63	45.97	21.78	4	90
2003	34.51	29.85	51.78	19.11	4	89
2004	30.75	38.46	46.95	21.54	4	89
2005	32.06	24.41	47.69	21.4	4	89
2006	39.31	31.06	52.77	27.62	4	25

*Source: Computed from bank annual report and financial statement of the selected banks*

**5.0 Implications of the study**

Model 1 will test to the extent to which shareholders fund of the (10) ten big banks have significantly influenced market share specifically bank deposit of Nigerian deposit

banks in Nigeria (See table 11). The model 1 has the proposition which state in null hypothesis that shareholders fund and total assets have not significantly influenced the ten big banks to compete effectively by way of control of market share (bank deposit)

between 1986-2006. The times series data for the banks are consolidated. The functional relationship in implicit form is represented below:

$$\text{Bank deposit} = f(\text{shareholders fund, total assets, } \mu) \dots \dots \dots \text{Eq.1}$$

When presented in explicit form, we have it as:

$$\text{Bank deposit} = a_0 + a_1\text{SHF} + a_2\text{TA} + \mu \dots \dots \dots \text{Eq.2}$$

Where the a priori expectation is stated as:  $a_1, a_2 > 0$ .

The equation above relates total deposits with factors that influenced it, which are shareholders fund (SHF) and total assets (TA). The variables were regressed using log transformation due to the fact; logarithmic relations bring variables to a more comparable manner because it examines their rate of change.

It equally helps to minimize the problem of heteroskedasticity. The result in table 5 below shows that the shareholders fund and total assets of the banks had positive and significant impact in influencing the level of total deposit. The coefficients, which denote elasticity of financial performance with respect to the individual explanatory variables, imply that a unit increase in shareholders fund and total assets will lead to about 0.22 and 0.96 units increase in total deposit respectively. Besides, both variables are positive and are significant at 5% for shareholders fund while total assets is at 1%. This conforms to theory that an increase in shareholders fund (capital and reserve) will heighten confidence of bank customers, hence, increase in bank deposit.

Table 5: Dependent Variable: TBD (Market Share Method: Least Squares)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LSHF	0.2168	0.0839	2.5811	0.0188
LTA	0.9637	0.1090	8.8382	0.0000
C	-0.3021	0.2742	-1.1015	0.2852
R-squared	0.9378	Mean dependent var	-	4.1943
Adjusted R-squared	0.9309	S.D. dependent var	-	0.4301
S.E. of regression	0.1130	Akaike info criterion	-	-1.3908
Sum squared resid	0.2299	Schwarz criterion	-	-1.2416
Log likelihood	17.6030	F-statistic	-	135.7926
		Prob(F-statistic)	-	0.0000

Sample: 1986 -2006

With regards to the model; the result in table 15 shows that R<sup>2</sup> (Coefficient of determination) is 94% and R<sup>2</sup> adjusted shows that about 93% variations in total deposit is explained by both shareholders fund and total assets. The F-statistics, which is significant at 1%, implies that the model had good fit and as such the result from the test can be

relied in making useful inference. To further validate the reliability of the model, the study carried out diagnostic and confirmatory test. To examine the efficiency of the model statistically, some standard diagnostic tests were carried out as reported in table 6. From table 6, the Jarque-Bera test points out that the stochastic term in the model were randomly distributed.

Table 6: : Diagnostic Tests/Confirmatory). Dependent Variables: Dlogbd

Variables	F-Statistic	Prob.
Jargue-Bera	0.1889	0.9098
B-G Serial Correlation	1.4237	0.2697
White Heteroskadasticity	0.8969	0.4886
Ramsey's RESET		
Chow Breakpoint	5.516	0.7012
Arch	0.3311	0.5721

Source: E-View Software Package: Computer Print Out

It could be observed that Jargue-Bera (J-B) test that normality assumption cannot be rejected, meaning that asymptotically; the error terms are identically independently distributed. This is supported by the Breuch-Godfrey (B-G) serial correlation test, which indicates that the results are free from first order auto correlation. In addition, the white's heteroskedaticity test reveals that the regression results do not suffer from this problem i.e the ordinary least square (OLS) assumption of homoscedasticity is not violated. The Ramsey's regression specification error test (RESET) test also elucidates that our null hypothesis is rejected in favour of the alternate hypothesis. Table 17 below also shows that shareholders fund and total assets of the bank had a positive and significant impact in influencing the level of loans and advances.

The second measure of market share can also be stated in equation. The functional relationship in implicit form is represented below as follows:

$$Loan\ and\ advances\ (LA) = f(\text{shareholders fund, total assets, } \mu) \dots \dots \dots Eq.3$$

When presented in explicit form, we have it as:

$$LA = a_0 + a_1SHF + a_2TA + \mu \dots \dots \dots Eq.4$$

Where the a priori expectation is stated as:  $a_1, a_2 > 0$ .

Market concentration by way of control of bank credit, bank asset and bank deposit determines the market share control by the banks. Before the N25 billion bank recapitalization in 2006 the big four (UBN, UBA, FBN and Afribank) controlled a larger proportion of the banking industry in terms of assets, capital, profit, loans & Advances and deposit. To what extent has this changed market power since the last capitalization on 31st December, 2005. This is expected to have changed after recapitalization. We therefore expect market concentration to be positively related to capital investment in the banking industry. Market concentration can also influence market power of banks. The size of bank capital reflects the concentration theory in this case.

The coefficients, which denote elasticity of financial performance with respect to the individual explanatory variables, implies that a unit increase in shareholders fund and total assets will lead to about 0.5 units and 0.72 units increase in total loans and advances. Total assets had significant impact on loans and advances. This conforms to theory that increase in the level of deposit

will impact on the magnitude of loans and advances extended to customers provided capital is not eroded. We therefore accept the alternate hypothesis that total assets have influenced the market share of the ten big banks between 1986-2006. Our model 2 will test to what extent shareholders fund of the (4) four big banks have significantly

influenced bank deposit (See table 12). The time series data for the banks are consolidated. Our model 2 has the proposition which state in null hypothesis that shareholders fund and total assets have not significantly influenced the four big banks to compete effectively by way of control of market share (bank deposit) between 1986-2006.

Table 7: Table 7: Dependent Variable: TLA (Market Share) Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LSHF	0.0439	0.1089	0.4032	0.6916
LTA	0.7204	0.1414	5.0954	0.0001
C	0.6099	0.3556	1.7154	0.1034
R-squared	0.7874	Mean dependent var	-	3.4963
Adjusted R-squared	0.7638	S.D. dependent var	-	0.3015
S.E. of regression	0.1466	Akaike info criterion	-	-0.8713
Sum squared resid	0.3866	Schwarz criterion	-	-0.7221
Log likelihood	12.1491	F-statistic	-	33.3332
		Prob(F-statistic)	-	0.0000

Source: E-View Software Package: Computer Print Out

The functional relationship in implicit form is represented below as follows:

$$\text{Bank deposit} = f(\text{shareholders fund, total assets, } \mu) \dots \text{Eq.5}$$

When presented in explicit form, we have it as:

$$\text{Bank deposit} = a_0 + a_1 \text{SHF} + a_2 \text{TA} + \mu \dots \text{Eq.6}$$

Where the a priori expectation is stated as:  $a_1, a_2 > 0$ .

The above relates total deposits with factors that influenced it, which are shareholders fund (SHF) and total assets (TA). The variables (See table 12) were regressed using log transformation due to the fact, logarithmic relations bring variables to a more comparable manner because it examines their rate of change. It equally helps to minimize the

problem of heteoskedasticity. The result in table 18 below shows that the shareholders fund and total asset of the banks had positive and significant impact in influencing the level of total deposit.

The coefficients, which denote elasticity of financial performance with respect to the individual explanatory variables, implies that a unit increase in shareholders fund and total assets will lead to about 0.08 and 0.20 units increase in total deposit respectively. Though, shareholders fund is not significant, total assets is positive and significant at 1%. This conform to theory that a decrease in shareholders fund (capital and reserve) will dampen the confidence of bank customers, hence, lower the growth of bank deposit.

With regards to the model; the result in table 8 shows that R<sup>2</sup> (Coefficient of determination) is 94% and R<sup>2</sup> adjusted shows that about 93% variations in total deposit is explained by both shareholders fund and total assets. The F-statistics, which is significant at 1% for total assets, implies that the model had good fit and as a result from the test can be relied in making useful inference. To further

validate the reliability of the model, the study carried out some diagnostic and confirmatory test. This was validated by serial correlation LM test; which shows that there was no problem of autocorrelation while the white test shows that there is no problem of heteroskedastic. From the table 9 below, the Jargue-Bera test points out that the stochastic term in the model were randomly distributed.

*Table 8: Dependent Variable: TBD (Market Share) Method: Least Square*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LSHF	0.0783	0.0781	1.0023	0.3295
LTA	1.1959	0.1229	9.732695	0.0000
C	-0.5521	0.2849	-1.937404	0.0685
R-squared	0.9378	Mean dependent var	-	4.0123
Adjusted R-squared	0.9309	S.D. dependent var	-	0.3969
S.E. of regression	0.1043	Akaike info criterion	-	-1.5509
Sum squared resid	0.1959	Schwarz criterion	-	-1.4017
Log likelihood	19.2844	F-statistic	-	135.7149
Durbin-Watson stat	1.1759	Prob (F-statistic)	-	0.0000

Source: E-View Software Package: Computer Print Out

*Table 9: : Diagnostic Tests/Confirmatory). Dependent Variables: Dlogbd*

Variables	F-Statistic	Prob.
Jargue-Bera	3.001	0.2229
B-G Serial Correlation	1.3742	0.2813
White Heteroskadasticity	1.0234	0.4249
Ramsey's RESET	0.188	0.6700
Chow Breakpoint	0.416	0.8865
Arch	1.5033	0.2359

Source: E-View Software Package: Computer Print Out

Table 10: Dependent Variable Variable: TLA. Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LSHF	0.2895	0.1474	1.9643	0.0651
LTA	0.2911	0.2318	1.2558	0.2252
C	1.0798	0.5376	2.0086	0.0598
R-squared	0.5569	Mean dependent var	-	3.2017
Adjusted R-squared	0.5077	S.D. dependent var	-	0.2805
S.E. of regression	0.1968	Akaike info criterion	-	-0.2814
Sum squared resid	0.6973	Schwarz criterion	-	-0.1322
Log likelihood	5.9550	F-statistic	-	11.3136
		Prob(F-statistic)	-	0.0007

Source: E-View Software Package: Computer Print Out

Table 10 also shows that shareholders fund and total assets of the bank had a positive and significant impact in influencing the level of loans and advances. The coefficients, which denote elasticity of financial performance with respect to the individual explanatory variables, implies that a unit increase in shareholders fund will lead to about 0.29 units increase in total loans and advances. Though, a total asset is

not significant, our shareholders fund had considerable impact on loans and advances at 10%. This conforms to theory that increase in the level of deposit will impact on the magnitude of loans and advances extended to customers provided capital is not eroded. We therefore accept the alternate hypothesis that shareholders fund has influenced the market share of the four big banks between 1986-2006.

Table 11: Aggregate Concentration Ratio in the Banking Industry- Ten Banks (Using % Method)

YEAR	TA (MSP)	TCR (MSP)	TD (MSP)	L&A (MSP)	SAMPLED BANKS	BANKS
1986	11.28	11.22	11.16	11.35	1	29
1987	33.58	65.75	50.4	32.8	5	34
1988	40	73.14	64.39	38	5	42
1989	45.18	69	82	41	8	47
1990	42	51	70	32	9	58
1991	38	52	67.38	24	10	65
1992	40	41	70	32	10	65
1993	40.4	66.33	63.54	37.8	10	66
1994	44	89	70.23	27.39	10	65



YEAR	TA (MSP)	TCR (MSP)	TD (MSP)	L&A (MSP)	SAMPLED BANKS	BANKS
1995	43	95	81.68	30.4	10	64
1996	53.25	95	87	37.87	10	64
1997	65.87	81	86	36.67	10	54
1998	54.8	63.77	83.37	38.1	10	54
1999	49.68	67	77.27	37.28	10	54
2000	47.8	49.3	75.42	41	10	54
2001	43.59	39	71.97	27.88	10	90
2002	43	42.11	61	32	10	90
2003	47	43.3	71	31.5	10	89
2004	42.7	60.6	66	34.43	10	89
2005	53.11	51	77	39.6	10	89
2006	67	54	87	55.47	10	25

Source: Computed by the Author. Where:

MSP=Market Share Percentage

TA=Total Assets

TCR=Total Capital & Reserves/Shareholders fund.

TD=Total Deposits

LA=Loans & Advances

Banks=Commercial Banks

Table 12: Concentration Ratio in the Banking Industry -  
Four bank (Using % Method)

YEAR	TA (MSP)	TCR (MSP)	TD (MSP)	L&A (MSP)	BIG 4 (MSP)	BANKS
1986	11.28	11.22	11.16	11.35	1	29
1987	32.91	65.74	49.21	32.03	4	34
1988	39.73	71.7	62.37	32.6	4	42
1989	42.79	65.33	72.56	39.9	4	47
1990	39.11	46.11	64.82	30.56	4	58
1991	35.11	44.65	63.27	16.66	4	65
1992	36.06	34.79	65.44	28.89	4	65
1993	36.44	55.19	58.84	33.08	4	66
1994	37.2	67.28	60.65	22.56	4	65

YEAR	TA (MSP)	TCR (MSP)	TD (MSP)	L&A (MSP)	BIG 4 (MSP)	BANKS
1995	42.14	66.54	72.93	23.11	4	64
1996	44.03	78.68	75.72	29.83	4	64
1997	54.6	54.44	71.88	22.48	4	64
1998	44.27	46.62	68.25	27.32	4	54
1999	39.02	42.86	62.63	26.07	4	54
2000	37.23	37.18	60.94	27.52	4	54
2001	33.1	26.32	56.57	18.97	4	90
2002	30.95	27.63	45.97	21.78	4	90
2003	34.51	29.85	51.78	19.11	4	89
2004	30.75	38.46	46.95	21.54	4	89
2005	32.06	24.41	47.69	21.4	4	89
2006	39.31	31.06	52.77	27.62	4	25

Source: Computed by the Author. Where:

MSP=Market Share Percentage

TA=Total Assets

TCR=Total Capital & Reserves/Shareholders fund.

TD=Total Deposits

LA=Loans & Advances

Banks=Commercial Banks

Table 13: Banking industry: Four firm con.Ratio using five years interval (1986-2006), using percentage method

YEAR	TA(MSP)	TCR(MSP)	TD (MSP)	LA (MSP)	Av No. of Banks
1987-1991	38	58.7	62.46	31.35	8.13
1992-1996	39.17	60.5	66.71	27.49	6.17
1997-2001	41.64	41.84	64.05	24.47	6.32
2002-2006	33.52	30.28	49.03	22.29	5.24

Source: Compiled from table 3

*Table 13: Banking industry: Ten firm con.Ratio using five years interval (1986-2006), using percentage method*

YEAR	TA(MSP)	TCR(MSP)	TD (MSP)	LA (MSP)	Av No. of Banks
1987-1991	32	62.18	66.83	33.58	15
1992-1996	44.13	77.26	74.49	33.09	15
1997-2001	53.35	60.01	78.81	36.18	16
2002-2006	50.56	50.2	72.4	38.6	13

**6.0 Summary, conclusion and recommendation**

**Summary of Finding**

This study has attempted to find the relationship between bank capitalization and market share. The following are the findings:

- We find evidence in support of a significant impact of bank capital on market concentration (market share). There is also a strong relationship between bank capital funds and bank deposits, loans and advances (proxies for market concentration). Prior to the recent bank capitalization, many Nigerian banks were passive players in the financial markets.

- The result shows that shareholders' fund and total assets of the banks have positive and significant impact in influencing the level of total deposits. In the same vein, shareholder fund and total assets of the bank had a positive and significant impact in influencing the level of loans and advances. The diagnostic tests also lend credence to the results.

- Tables 11, shows banking industry (deposit money banks) as a highly concentrated industry from 1987 to 2006. Save for 1998, 2004, 2005 and 2006 where Zenith bank broke into the big four, First Bank (FBN), United Bank for Africa (UBA), Union Bank of Nigeria (UBN) and Afribank bank had the

largest total assets, total capital and reserve (shareholders fund), total deposits and loans and advances from 1987-2006. Even when the total number of banks increased from 29 in 1986 to 65 in 1991, decreased to 64 in 1996, increased to 90 in 2001 and 25 in 2006, the four giants banking firms more less maintained their market power of 33.52 percent of total assets, 30.28 percent for total capital and reserve, 49.03 percent for total deposits and 22.29 for loans and advances.

**Conclusion**

We strongly suggest that to reduce market concentration in the Nigerian banking industry, capital, technology, customer care, aggressive marketing and efficient service delivery are tools that can be used to attract more customers to shore up bank deposit. This will also help to reduce market concentration and also break the monopoly power of the big banks. With respect to bank capital and market power (market share), for Nigerian banks to be major players in domestic and international financial market, its capital must be kept above the minimum regulatory requirement at all times. To enhance market share (Concentration), Central Bank of Nigeria should ensure that bank

management/managers apply customers deposit for worthwhile projects instead of using such for prefer prestige, wrong loan application, power and status, luxurious offices and building, company cars and other perquisites of office.

When bank loans are profitably employed it will definitely lead to increase in profit and consequently shareholders fund. When banks are able to influence the other sectors in the economy through extension of loans, it would lead to multiplier effect in the long run, reduce inflation and appreciate the naira. Bank management owes it a duty to keep watch and constantly monitor the quality of assets, especially the risk assets must be improved upon. If the existing ratio falls below the benchmark of 20%, excessive and unnecessary growth of the loan portfolio volume must be minimized. Bank capital cannot on its own influence bank deposit as depicted by our result. There is no doubt that the days of armchair banking are over and intense competition in the Nigerian banking industry has come to stay. Besides these lapses of unfavorable enabling environment (excessive operational expenses, shareholders fund/total assets that is risk of default), mismanagement of assets, there is the issue of bad governance on the part of bank management which has failed in all respect to provide positive leadership.

### Recommendations

A bank without good management (input) may worsen the position it was before the injection of new funds. Where managers prefer prestige, power and status, it would be reflected in the amount they receive in form of expense account and luxury. Management

capability should be better supported, for the best of assets can be overturned in short period by poor management. It is a known fact that CBN plays an important role in the selection of bank executives at the directorate level. The policy for the selection of this class of bank workers should emphasize strict consideration of good track records and sequential growth phase through the ranks as some of the imperatives. On the basis of the theoretical and empirical findings of this study, and considering the fact that the days of armchair banking has been overtaken with the intense competition in the Nigerian banking industry, we recommend the following:

- Shareholders' fund and total assets of the bank should be periodically evaluated. The regulatory authorities will need to put in place appropriate machinery or tool that will address issues of bank liquidity and shore assets quality in the industry. Bank management in conjunction with the regulatory authorities should at all times address causes of illiquidity rather than the systems. In this way, lost confidence can once again be restored in the Nigerian banking industry. It is important to carry routine checks, periodic examinations on bank returns.

- We strongly suggest that apart from capital, technology, customer care, aggressive marketing and efficient service delivery are tools that can be used to attract more customers to shore up bank deposit. This will also help to reduce market concentration and also break the monopoly power of the big banks.

- With respect to bank capital and market power (market share), for Nigerian banks to be major players in domestic and international financial market, its capital must be kept above the minimum regulatory requirement at all times.

## REFERENCES:

1. **Adewunmi, Wole** (1997): "The N500 Million Paid-Up Capital for Bank", The Nigerian Banker, Jan-June, pp. 16-19.
2. **Adewunmi, Wole** (1992): *Bank Management: The Responsibilities of Directors*, F & A Publishers Limited, Lagos, pp 34-86
3. **Allen, F. and Gale, D.** (2000): *Comparing Financial Systems*, Cambridge and London, MIT Press, pp 440-475.
4. **Allen, F. and Gale, D.** (2003): "Competition and Financial Stability", *Journal of Money, Credit and Banking*, 36, pp. 433-480.
5. **Allen, L. and Rai, A.** (1996): "Operational Efficiency in Banking: An International Comparison," *Journal of Banking and Finance* 20, pp. 655-672.
6. *Annual and Financial Reports of Banks* (Various issues)
7. **Anyanwaokoro, M.** (1996): *Banking Methods and Processes*, Hosanna Publications, Enugu.
8. **Athanasoglou, P.P; Brissimis, S.N and Delis, M.D** (2005): *Bank-Specific, Industry Specific and Macroeconomic Determinants of Bank Profitability*, Bank Greece Working Paper, No.25. Pp. 1-10.
9. **Athanasoglou P., Delis M, and C. Staikouras** (2006): "Determinants of Banking Profitability in the Southern Eastern European Region", Bank of Greece Working Paper 06/47.
10. **Bain, J.S** (1956): "Relation of Profit Rate to Industry Concentration", *Quarterly Journal of Economics*, 65, 293-324.
11. Bank for International Settlement (2001): "The Banking Industry in the Emerging Market Economies: Competition, Consolidation and Systemic Stability", BIS Paper No.4, (August), (Basel: Monetary and Economics Department), pp. 2-14.
12. Bank for International Settlements (2001): "The Banking Industry in the Emerging Market Economies: Competition, Consolidation, and Systemic Stability". BIS Paper 4, pp 5-20.
13. **Beck, Demirguc-Kunt, A and Levine, R.** (2003): "Bank Concentration and Crises", NBER Working Paper No. 9921. Retrieved on February 19, 2005 From <http://www.nber.org/papers/W9921>, pp.3-7.
14. **Beck, T., Demirguc-Kunt, A and Levine, R.** (2004): "Bank Concentration and Fragility: Impact and Mechanics". Paper Retrieved on June 15, 2005 From <http://www.nber.org/books/risk/beck-et-al-12-15-04.pdf>, pp 3-8.
15. **Beck, T., Cull, R. and Jerome, A.** (2005): "Bank Privatization and Performance- Empirical Evidence from Nigeria," World Bank Policy Research Working Paper 3511. Retrieved on April 7, 2005 from [http://web.worldbank.org/external/default/WDSContentServer/1W3P/1B/2005/03/02/000012009\\_20050302124337/Rendered/PDF/wps3511.pdf](http://web.worldbank.org/external/default/WDSContentServer/1W3P/1B/2005/03/02/000012009_20050302124337/Rendered/PDF/wps3511.pdf).
16. **Berger, A.** (1995): "The Profit-Structure Relationship in Banking: Test of Market-Power and Efficiency-Structure Hypotheses", *Journal of Money, Credit and Banking* 27, pp. 404-431
17. **Berger, A.N., R.J . Herring and Szego** (1995): "The Role of Capital in Financial Institutions," *Journal of Banking and Finance* 19: pp 393-430.
18. **Berger, A.** (1995a): "The Profit-Structure Relationship in Banking: Tests of Market-Power and Efficient-Structure Hypotheses", *Journal of Money, Credit and Banking*, 27, pp. 404-431.
19. **Berger, A.** (1995b): "The Relationship between Capital and Earnings in Banking," *Journal of Money, Credit and Banking*, Vol. 27, pp. 404-431.
20. **Berger, A.N. and Hanweck, G.A. and Humphrey, D.B** (1987): "Competitive Viability in Banking: Scale, Scope and Product Mix Economics 20," pp. 501-520.

21. **Boyd, John H., and David E. Runkle**, (1993): "Size and Performance of Banking Firms", *Journal of Monetary Economics*, Vol. 31, pp. 47-67.
22. **Boyd, J.H and D.E Runkle** (1993): "Size and Performance of Banking Firms, Testing the Predictions of Theory", *Journal of Monetary Economics* 31, 47-67.
23. **Bronfenbrenner, M Sichel, W and Gardener, W** (1990): *Economics*, Houghton Mifflin Company, Boston. pp. 599-653.
24. Central Bank of Nigeria (CBN): "Annual Report and Statement of Accounts" (1999-2003).
25. CBN Banking Supervision Annual Report 2006 and 2007
26. **Chong, B.S** (1991): "Effects of Interstate Banking on Commercial Banks' Risk and Profitability", *Review of Economics and Statistics*, 73, pp.78-82..
27. **Demirguc-Kunt A and H. Huizinga**. (1999): "Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence", *World Bank Economic Review*, Vol.13: 379-408, pp. 3-8
28. **Demirguc-Kunt A and Levine, R.** (2000): "Bank Concentration: Cross Country Evidence". Retrieved on February 19, 2005 from <http://www.globalpolicy.org/soecon/tncs/mergers/imfbankcons.htm>.
29. **Demirguc-Kunt, A and Huizinga, H.** (2001): "Financial Structure and Bank Profitability," in *Financial Structure and Economic Growth: A Cross-Country Comparison of Banks, Markets, and Development*, MIT Press, Cambridge, MA, pp. 1-12 Retrieved on March 10, 2005 from <http://www.econ.worldbank.org/doc/1185.pdf>.
30. **Demirguc-Kunt, A, and Huizinga** (1998): "Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence", *World Bank Economic Review* 13, 379-408.
31. **Diamond, D** (1984): "Financial Intermediaries and Delegated Monitoring," *Review of Economic Studies* 51, pp. 393-414
32. **Dolan, G.E** (1986): *Economics*, Dryden Press, Chicago p. 602
33. Donsyah@hotmail.com.Yudistira, Donsyah (2003): "The Impact of Bank Capital Requirements in Indonesia", Department of Economics, Loughborough. pp. 1-9.
34. **Ebhodaghe, John U.** (1994): "Boardroom/Management Practices and Distress in the Banking System", *NDIC Quarterly*, Volume, 4 No. 2 (June), pp.15-25.
35. **Fagbohunge, O.B** (2003): *Research Methods for Nigerian Tertiary Institutions*, Cole Consults, Lagos, p.48.
36. **Greene, W.H** (2004): *Econometric Analysis* (Fifth Edition), Pearson Education (Singapore) Ltd, Delhi.
37. **Hay, D.A and D.J Morris** (1991): *Industrial Economics and Organization: Theory and Evidence*, 2 ed, Oxford University Press, New York.
38. **Peek, J. and Rosengren, E.** (1996): *Small Business Credit Availability: How Important is Size of the Lender?. In Universal Banking: Financial System, Design Reconsidered*, Edited by Saunders and Walter, Irwin Publishing, New York, pp. 12- 20.
39. **Sathye, M.** (2002): "The Impact of Foreign Banks on Market Concentration: The Case of India. *Applied Econometrics and International Development*" (AEEADE) Vol.2-1, pp 7-20.Retrieved on January 1, 2005 from <http://www.ideas.respect.org/s/ea/aeinde.html>, pp 4-12.
40. **Shih, S.H Michael** (2003): "An Investigation into the Use of Mergers as a Solution For the Asian Banking Sector Crisis", *The Quarterly Review of Economics and Finance* Lagos, pp. 31-49.