Is the Nigerian Commercial Banking Industry Experiencing any Competition? An Empirical Approach

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An Empirical Approach.

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Abstract

The paper investigates the level of competition in the loans and deposit market of the Nigerian commercial banking sector in the post re-capitalization period 2007-2011 using Herfindahl-Hirschman Index (HHI) and Concentration Ratio (CR). The weighted average reveals that in the deposit market 3 banks control 39.4% and in the loans market 2 banks provide 19%. The HHI result of 1073 in the deposit market and 2419 in the loans market infers that the level of competition is higher in the deposit market than the loans market. The Nigerian banking industry is neither highly competitive nor experiencing acute market concentration.

JEL Classification: D49, G21

Key words: competition, banks, concentration-ratio.

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1.0 Introduction

There have been fundamental changes in the structure of banks in Nigeria in the last two decades with more emphasis on the entry conditions and management of risk assets. In the beginning of the year 2000 there were 54 deposit money banks licensed to operate in Nigeria. The number rose sharply to 90 in 2002 and dropped to 25 in 2005 as a result of an upward review in the minimum share capital of deposit money banks initiated by the regulatory authorities (CBN 2006).

The main dictate of the consolidation process was announced by the Central Bank of Nigeria (CBN) in the middle of year 2004. It pronounced a new minimum share capital for deposit money banks in Nigeria, with increase, to a minimum of N25 Billion with effect from 1st of January 2006 (CBN 2004). At the close of the consolidation exercise, a pre-consolidation and aggregate capitalization of the Nigerian deposit money banks rose in a big lump from N311billion to N932billion (Ibru 2007).

The Nigerian banking firms operates majorly a branch banking type. And with about 20 licensed banks presently operating out of the 25 initially licensed at the dawn of 2006 a total number of 5799 branches are widely located in urban and less urban cities (CBN 2010).

The traditional approach to assessing competition has been to associate a larger number of firms with more price competition and fewer firms with less-competitive behavior. This thought is from a classic industrial organization argument, which assumes that there is a causal relationship running from the

structure of the market (e.g., firm concentration) to the firm's pricing behavior, to the firm's profits, and to its degree of market power. The chances of a firm's domination of the market among other factors are determined by the market power of the bank or the degree of competition in the market. The higher the degree of competition, the less market power a bank has and vice-versa.

The location of banks' various branches in the state capitals and some lesser cities in various parts of Nigeria is expected to promote competition and also provide consumers a wide choice of determining a banking product (e.g. saving and term deposits) that would maximize their returns and to a wider extent which bank to patronize for deposit and credit needs.

Claessens and Laeven (2004) have shown that the degree of competition in the banking sector is important among other reasons like efficiency in delivering financial services and to improve the access of firms and households to financial services and external financing. Researchers therefore determine the level of competition amongst firms through concentration measures, such as the Herfindahl-Hirschman Index (HHI), the sum of market shares of the *n* largest banks (CR- n), Panzar and Rosse model, and some others. Such indicators are relevant since high concentration is usually associated with non-competitive practices, or the formation of collusion among market participants (Martins 2012).

The analyses and estimation of degree of competitions for deposits and loans in a local market was conducted by Berger and Hannan (1989) and Hannan (1997); they employ HHI and found that a negative correlation exists between

concentration and interest paid to depositors. This infers that market concentration may be a plausible indirect measure of firms' market power. De Bandt and Davis (2000), Shaffer (1994), and Bikker and Haaf (2002) examined the impact of banking consolidation and competition in the United States of America. Their results reveals that consolidation in the US banking market was mostly driven by markets as merger was perceived as one way to improve their diversification, efficiency or possibly market power.

For European banking markets Maudos and de Guevara (2004) found a statistically significant positive correlation between concentration and bank interest margins for the period 1993–2000. In the Latin America Lau (1982) and Nekane (2001) on their respective study applied the Structure Conduct Performance Approach method with the assumption that each type of credit is an independent market. They found that the Brazilian banking market is highly competitive but reject the hypothesis of perfect competition.

Asogwa (2003) relied on a simultaneous equation model developed in the New Empirical Industrial Organization Literature formed by a cost equation and a supply equation in order to identify the degree of market power exhibited in the banking market in Nigeria. He discovered competition is stronger among large banks and weaker among small banks and intermediate among medium-sized banks. Ayeni (2013) adopted a different analytical method (Panzar and Rosse) and found that banks in Nigeria operate in an averagely monopolistic competitive market.

Our study investigates the level of competition after the 2006 consolidation and mergers resulting from review of minimum capital of commercial banks in Nigeria. And also determines whether the exercise engenders a competitive loan and credit markets or an enhancement of market power in the commercial banking sector. The rest of the paper is divided into four parts. Part two discusses the recent developments in the Nigerian Banking Industry. Part three provides the theoretical background. Part four is on data analysis and findings. And part five contains the conclusion.

2.0 The Nigerian Commercial Banking Industry: Overview of the Reform Efforts

The reform agenda prescribed by the regulatory authorities for the Nigerian banking sector over time situates the reform measures in this sub-sector under three broad categories: (i) policies to improve the efficiency and competition in the sector; (ii) policies to strengthen the prudential framework and bank supervision; and (iii) policies to develop and deepen money market.

These policies directly or otherwise affect the banking market structure and the level of competition. The first category of policy by government, is comprised of dismantling interest rate controls on deposits and loans, dropping of directed credit schemes to priority sectors and later (late 80s), withdrawals of accounts of all Federal and State Government Ministries, Departments and Parastatals from commercial banks to Central Bank of Nigeria (CBN, 1989). This action of

government is meant to create a level playing field for all banks and disallow undue preference to those who hold government funds in the loans market.

The regulated interest rate structure of the CBN was modified in November 1989 with a view to remove the distortion in the interest rate structure. And a modified regulated structure replaced the earlier method. In the new dispensation banks were allowed a maximum spread of 4 percentage points between the prime and highest lending rates, (CBN, 1991).

In the 1991 fiscal year, to foster competition and promote efficient allocation of financial resources banks were required to link their lending rates to their average cost of funds by maintaining a 4 per cent spread above the average cost of funds subject to a maximum lending rate of 21 per cent and observe a floor of 13.5 per cent on savings deposit (CBN, 1992).

The interest rate policy adopted by CBN was meant to improve the operations of the money market. In line with the policy of interest deregulation, banks deposit and lending rates were market determined. The performance criterion was that banks should observe a maximum spread of per cent points (determined by CBN) between their average cost of funds and their lending rates. The cap on interest rate adopted in 1993 was maintained in 1994 and 1995 and was retained for most of 1996. In the later part of 1996 the rule changed when the CBN asked banks to maintain a maximum spread of 7.5 per cent points between their deposit and lending rates subject to a maximum lending rate of 21 per cent.

The Minimum Rediscount Rate (MRR) which is to serve as the nominal anchor for determining other rates ranges between 9%- 12.17% between 2006 and 2008 respectively.

It is noteworthy that interest rates have remained relatively stable since December 2006 when Monetary Policy Rate (MPR) replaced the Minimum Rediscount Rate (MRR) under the new monetary policy implementation framework (CBN, 2007).

In the wake of 2008, the global financial crisis was felt in Nigeria through lower oil prices and sharp decline in the performance of the stock market. Though, Nigerian banks were not fully integrated into the international banking arena but due to sharp decline in the domestic stock prices some of the banks whose shares were quoted suffered a setback.

In view of this the CBN ordered a special examination of all commercial banks in June 2009.The result of the exercise was that out of the 24 banks operating, 10 were found weak. Consequently, directors of 8 banks were replaced and a sum of Six Hundred and Twenty Billion Naira (#620.00Bn) was injected to aid domestic liquidity (CBN 2009).

This exercise affected the pricing structure of deposit and loans in the market. Even the MPR declined to 4.68% in 2009 from 12.17% in 2008. And by 2010 it was 8.03%. The average prime and maximum loan rates for banks also declined from 19.05% down to 15.74% and from 23.77% to 21.86% respectively (CBN 2010).

Another impact of this regulatory actions is that the remaining banks regarded as "healthy" by the regulatory authorities face more pressure as customers of weak

banks "migrate funds" to purchase banking products like savings, demand and time deposits. Also, they face easy access criterion condition based on distance of a bank from its customers; i.e. the preference for a bank might just be based on the proximity of a bank's branch to its prospective competitor.

The entry into banking industry like most banking industry around the globe is regulated in Nigeria. Bank license is issued (based on specific conditions) and withdrawn or suspended (in cases of violation of banking rules or laws and or bank illiquidity or mismanagement etc) by the regulatory authority.

Against this premise, efforts of government to regulate the sector came about in 1952 when the first enactment; i.e. Nigerian Banking Ordinance was promulgated followed by the CBN Act 1959. The Acts over time had witnessed fresh enactments and several amendments. Some of which are Banks and Other Financial Institutions Act 1991 (BOFIA), Central Bank of Nigeria Act 1991, Nigerian Deposit Insurance Act of 1988 and a host of others. Other reforms in the regulatory framework included the introduction of Prudential Guidelines in 1990 to disallow banks from making current income from delinquent loans.

The essence of these enactments and subsequent amendments to the various acts were to address the following issues; review the conditions of entry into banking business, review the capital base of banks on regular basis, reduce insider abuses leading to granting unsecured and delinquent loans, streamline licensing procedures, ensuring adequate supervision of banking business, secure depositors funds through insurance scheme and above all maintenance of a

better and improved services to consumers in a competitive banking environment. (CBN Annual Reports).

3.0 Theoretical Background

Market structures can be classified in two fundamental forms – *Perfect competition* and *Imperfect Competition.* Within this framework, those treated as special cases are Monopoly, Oligopoly Duopoly and Monopolistic Competition which are less than perfect. The theoretical expositions of the structure of markets as it relates to banking firms are discussed below.

The assumptions of Chamberlin (1933) as it relates to banking firms is that, "each" "product" is differentiated by another by name of the bank or by the individuality of the establishment in which it is sold, including its location (as well as trademarks, quality, etc.)". The large number of branches of banks in the market and the possibility of entry (though difficult) and exit of many banks, provide the competitive elements. 'Each "product" is subject to the competition of the other products sold under different circumstances and at other locations.

In the limit case of the monopolistic competition model, where banks' products are regarded as perfect substitutes of one another, the Chamberlin model produces the perfectly competitive solution, as demand elasticity approaches infinity.

In the immediate period after Chamberlin, Mason (1939) propounded the traditional structure-conduct-performance (SCP) approach which posits that fewer firms in the market will generally lead to less competitive conduct, in

terms of higher prices and reduced output levels, simply like a monopolist model. Also, a concentrated market will produce less competitive performance, where the price ratio to cost is higher at the expense of lower consumer welfare.

The small number of firms might also facilitate firms to collude with their competitors in order to boost price. In this case, market price will be much higher than marginal cost (Yeyati and Micco, 2003).

The SCP model assumes that there is a single-way relationship between structure, conduct and performance. That is why the market structure affects the firms' behavior and the firms' behavior in turn influences the market performance. The causal relationship becomes unclear because firms' decision to enter the market might be affected by the expectations of the degree of competition in the market stage (Vesalla, 1995).

On the other hand, the competitive market will produce an efficient outcome as price equals marginal cost. Thus, an increase in firm numbers will lead to more competitive conduct by lowering price and reducing firms' profitability. Also, the SCP approach believed that the competitive market, which is produced by a low concentration in the market, will deliver higher consumer welfare (Shaffer, 1994).

 In the Non Structural Approach theory, the first argument against the traditional structure performance hypotheses came from Demzets (1973) and Pelzman (1977). According to them, the source of concentration is efficiency instead of market power. Their finding is labeled as Efficiency-Structure hypotheses. And they explained that the difference in firm-specific efficiencies within markets can create unequal market shares and high level of concentration. The difference in

efficiency might be derived from superior management and production technology (Neuberger, 1997).

Panzar and Rosse (1987) propounded a testable postulate that is used to determine the level of competition in the financial market based on the hypothesis that researchers cannot rely solely on the market structure information alone to determine the competition level in the banking market.

PR defines a measure of competition H as - sum of the elasticities of the reduced-form revenues with respect to factor prices:

$$H = \sum_{i=1}^{m} \frac{\partial R_i^{*}}{\partial p_i} \frac{P_i}{R^{*}} \qquad . \qquad . \qquad . \qquad (1)$$

Where H is the measure of competition R_i refers to revenue of bank i, P_i is the factor input prices of bank i,

The PR method is estimated by calculating the sum of elasticity of the reduced form revenues with respect to factor prices. The value of elasticity provides information about banks conduct, and is also used to determine the structure of the market.

From equation 1 Panzar and Rosse was able to prove that under monopoly, an increase in input prices will increase marginal costs, and reduce equilibrium output and subsequently reduce revenues. And in such circumstance H would be zero or negative.

The same outcome is also found in monopolistic competition without a threat to entry. But with fixed number of banks, where there are barriers to enter the market, the number of banks remain unchanged. Vesalla (1995) proved that in such market H is zero or negative.

4.0 Methodology

4.1 Data Sources

Our data for this paper are from CBN Annual Reports (Summary of Deposit Money Banks' activities) and Annual Report and Accounts of the fourteen commercial banks in the period 2007-2011. The 14 out of 20 commercial banks whose annual data were used for the study represent 70 per cent population of commercial banks operating in Nigeria as at the end of 2011. The remaining six banks are classified as other banks.

4.2 Method of Data Analysis

In this paper, we employ the Herfindahl-Hirschman index (HHI) and Concentration Ratio (CR) which has been widely employed for the examination of the competitive structure of the banking industry in various countries, we also use the bank (market leaders) concentration ratio to determine the level of market concentration. (See Muhamed-Zulkhibri, and Fadzlan, 2007; Mirzaei et al, 2011.)

In our attempt to investigate the level of competition in the Nigerian commercial banking sector during the periods 2007-2011 we estimate the HHI to determine the concentration ratio in the loans and deposit market so as to determine the level of competition in the market.

The HHI is a concentration measure (constructed as the sum of the squares of the market share of deposits and loans) applied to determine the level of competition amongst the deposit money banks in Nigeria.

The ratio is determined by the formula:

$$\text{HHI} = \sum_{i=1}^{N} S_i^2 \qquad . \quad . \qquad . \quad (1)$$

Where;

i…..1,2,3…..n

N no of firms operating in the local market

S is the market share of each bank

Decision Rule

Increases in the Herfindahl-Hirschman index generally indicate a decrease in competition whereas decreases indicate the opposite. Alternatively, if whole percentages are used, the index ranges from 0 to 10,000.

A HHI index below 0.01 (or 100) indicates a highly competitive index.

A HHI index below 0.15 (or 1,500) indicates an unconcentrated index.

A HHI index between 0.15 to 0.25 (or 1,500 to 2,500) indicates moderate concentration.

A HHI index above 0.25 (above 2,500) indicates high concentration.

4.3 Discussion of Findings

The number of licensed commercial banks operating in Nigeria reached its peak in 2002. It declined from 90 in 2002 to 89 by the end of 2003. And by the end of 2004, it had dropped to 25 licensed commercial banks (see table 1).

The change in the number of licensed commercial banks between 2003 and 2004 represents a 71.91% decline in the number of operating commercial banks in Nigeria. The significant decline was majorly due to the capital reform exercise conducted by the regulatory authority (Central Bank of Nigeria).

The trend in the number of branches of banks shows a different pattern compared to the number of licensed banks. The number of branches established by the licensed banks has been steadily growing with about 5799 branches by the end of 2011. Although it dropped by 13.97% between 2004 and 2005, ever since it has been increasing. The obvious implication of increasing number of branches is that access to commercial banking services becomes better as bank/customer ratio improves.

The Concentration Ratio (CR) template of estimation is based on the classification of the banks of study in three major classifications (see table 4 for deposit market and table 9 for the loans market).The results of the weighted average of the respective class for the period of the study is represented in tables 5 and 10 for deposit and loans respectively.

In the deposit market, the mean concentration ratio in the period of the study in respect of category A that is comprised of 3 banks was 39.4% and 13.6% for category B with 2 banks. While Category C with 9 banks and other banks maintains weighted average in the five year period at 28% and 19% respectively.

In the loans market, the classification of banks in table 9 shows that none of the 14 banks employed for the study made the A category while 2 banks are in category B and the rest are in category C.

The concentration of loans based on a weighted average in the 5 year period indicates that the highest concentration is in category C with about 40.6% of loans advanced by the commercial banks. The other banks had a concentration ratio of 40.4% and the lowest concentration of 19% in category B comprising of 2 banks.

In respect of the results of HHI in tables 11 and 12 the deposit market indicates an index of 1073 evidencing unconcentrated index in the deposit market while that of loans market is 2419 evidencing moderate concentration. The two markets lies in the midway between high competition and extreme concentration.

5.0 Conclusion and Recommendations

This paper contributes to the empirical literature on market competition amongst Nigerian commercial banks in the period 2007-2011, offering evidence with a model that explains the concentration or competition in the industry.

We found no evidence, which supports that the loans or deposit markets are highly competitive or facing acute concentration. But our evidence supports that competition in the industry lies between the two extremes. We conclude that in spite of the re-capitalization exercise, competition in both markets is not fierce because the markets are not highly competitive and no single bank enjoys acute market concentration or market power.

In view of our findings, we recommend as follows; regulators should improve on the level of competition and engender efficiency in the industry by modifying without necessarily reducing the standard of entry into the industry. Design regulatory measures that will disallow internal abuses and mismanagement that

causes exit of firms. And finally prevent market concentration and antitrust concerns by disallowing the merger of the big banks that could result in a bank becoming the dominant member of the market.

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Appendix

Table 1

Number of deposit money bank and branches in Nigeria and abroad

Year	No of licensed banks	Urban branches	Rural Branches	Branches abroad	Total no of branches
2000	54	1466	722	5	2193
2001	90	1466	722	5	2193
2002	90	2283	722	5	3010
2003	89	2520	722	5	3247
2004	25	2765	722	5	3492
2005	25	NA	NA	NA	3004
2006	25	NA	NA	NA	3897
2007	25	NA	NA	NA	NA
2008	24	NA	NA	NA	NA
2009	24	NA	NA	NA	NA
2010	21	NA	NA	NA	5810
2011	20	NA	NA	NA	5799

Source: CBN statistical Bulletin 2008 and Annual Reports 2010.

*NA means: records not available from CBN annual reports.

Table 2

Total Deposit Liabilities of Listed Commercial Banks (7).

Year	Access #Billion	First Bank #Billion	Diamond #Billion	Eco #Billion	Fidelity #Billion	GTB #Billion	FCMB #Billion
2007	205.2	581.8	211.6	84.0	78.6	290.8	188.0
2008	351.8	661.6	403.7	229.9	176.7	357.0	251.6
2009	405.7	1244.0	449.0	310.7	379.7	662.3	272.6
2010	440.5	1330.8	378.7	243.8	288.8	713.0	334.9
2011	522.6	1783.8	544.2	215.4	327.3	964.1	410.6
total	1925.8	5602.0	1987.2	1076.8	1251.1	2987.2	1457.7
mean	385.16	1120.4	397.44	215.36	250.22	597.44	291.54

Source: Annual Reports of the Commercial Banks 2007-2011.

Table 3

Total Deposit Liabilities of Listed Commercial Banks (7).

Year	Stanbic #Billion	Sterling #Billion	Sky #Billion	Uba #Billion	Union #Billion	Wema #Billion	Zenith #Billion
2007	72.4	75.0	269.3	897.6	417.4	125.4	568.0

2008	98.9	106.9	501.6	1258.0	649.3	136.1	1161.5
2009	170.4	184.7	452.9	1151.1	782.0	94.8	1111.3
2010	187.6	160.5	471.0	1119.1	598.9	121.5	1289.6
2011	295.9	199.3	642.6	1216.4	399.2	147.4	1576.0
total	825.2	726.4	2337.4	5642.2	2846.8	625.2	5706.4
mean	165.04	145.28	467.48	1128.44	569.36	125.04	1141.28

Source: Annual Reports of the Commercial Banks 2007-2011

Table 4

Categorization by total Deposit Liabilities Based on the Mean of 5years

Banks	Group A Above 1 Trillion Naira	Group B Below 1trillion Above #500Billion	Group C Below #500Billion
1	***		
2	***		
3	***		
4		**	
5		**	
6			*
7			*
8			*
9			*

10			*
11			*
12			*
13			*
14			*

Source: Computed by the Authors

Table 5

Concentration Ratio (CR) of Commercial Banks Deposit 2007-2011

Year	Category A 3 Banks	Category B 2 Banks	Category C 9 Banks	Others
2007	0.41	0.14	0.26	0.19 (11 banks)
2008	0.39	0.13	0.28	0.20 (10 banks)
2009	0.38	0.16	0.30	0.16 (10 banks)
2010	0.39	0.13	0.27	0.21 (7 Banks)
2011	0.40	0.12	0.29	0.19 (6 banks)
Mean	0.394	0.136	0.28	0.19

Source: Computed by the Authors

Table 6

Total Loans and Advances of Listed Commercial Banks (7).

Year	Access #Billion	First bank #Billion	Diamond #Billion	ECO #Billion	Fidelity #Billion	FCMB #Billion	GT Bank #Billion
2007	107.8	219.1	96.4	52.3	38.7	83.6	113.7
2008	244.6	437.8	231.4	116.1	70.2	186.6	291.5
2009	391.7	1022.5	296.5	144.9	230.7	236.8	538.1
2010	403.2	1017.4	294.9	183.7	161.3	323.5	563.5
2011	463.1	1128.9	297.9	232.8	158.5	315.1	681.8
total	1610.4	3825.7	1217.1	729.8	659.4	1145.6	2188.6
mean	322.08	765.14	243.42	145.96	131.88	229.1	437.72

Source: Annual Reports of the Commercial Banks 2007-2011

Table 7

Total Loans and Advances of Listed Commercial Banks (7).

Year	Stanbic #Billion	Sterling #Billion	Sky #Billion	UBA #Billion	Union #Billion	WEMA #Billion	Zenith #Billion
2007	79.6	38.9	112.9	320.2	149.4	68.6	218.3
2008	99.0	45.9	246.4	405.5	244.8	48.4	413.7
2009	110.9	65.8	317.8	543.3	336.8	28.6	669.3
2010	164.2	78.1	385.4	569.3	178.7	38.6	667.9
2011	230.7	99.3	490.8	596.4	140.5	60.1	767.4
total	684.4	328.0	1553.3	2434.7	1050.2	244.3	2736.6
mean	136.88	65.6	310.66	486.94	210.04	48.86	547.32

Source: Annual Reports of the Commercial Banks 2007-2011

Table 8

Aggregate Loans and Deposit Liabilities of Money Deposit Banks

Year	Aggregate Deposit	Aggregate Loans & Advances
2007	5001.4	4993.3
2008	7960.2	7606.1
2009	9150.0	8451.3
2010	9784.5	6629.6
2011	11452.8	6489.7
Total	43348.9	33666.0
Mean	8669.78	6733.20

Source: CBN Annual Reports 2011

Table 9

Categorization by Loans and Advances Based on the Mean of 5years

Banks	Group A Above 1 Trillion Naira	Group B Below 1trillion Above #500Billion	Group C Below #500Billion
1		**	
2		**	
3			*

4			*
5			*
6			*
7			*
8			*
9			*
10			*
11			*
12			*
13			*
14			*

Source: Computed by the Authors

Table 10

Concentration Ratio (CR) of Commercial Banks Advances 2007-2011

Year	Category A Nil- Banks	Category B 2 Banks	Category C 12 Banks	Others
2007		0.10	0.28	0.62 (11 banks)
2008		0.11	0.29	0.60 (10 banks)
2009		0.20	0.38	0.42 (10

				banks)
2010		0.25	0.50	0.25 (7 banks)
2011		0.29	0.58	0.13 (6 banks)
Mean		0.19	0.406	0.404

Source: Computed by the Authors

Table 11

Percentage Share of each bank's deposit liabilities

Name of Bank	% share of commercial bank Deposit (S)	Square of percentage share of commercial bank (S^2)
1	4.442558	19.7363
2	12.923850	167.0259
3	4.584120	21.0148
4	2.484031	6.1704
5	2.886117	8.3297
6	3.362715	11.3079
7	6.891063	47.4867
8	1.903624	3.6238
9	1.675706	2.8080
10	5.392063	29.0743
11	13.015786	169.4107
12	6.567179	43.1278

13	1.442251	2.0801
14	13.163887	173.2879
Other Banks	19.203486	368.7739
$\sum S^2$		1073.26

Source: Computed by the Authors

Table 12

Percentage Share of each bank's Loans and Advances

Name of Bank	% share of commercial bank Loans &Advances(S)	Square of percentage share (S²)
1	4..783461	22.8815
2	11.363690	129.1335
3	3.615220	13.0698
4	2.167766	4.6992
5	1.958653	3.8363
6	3.402840	11.5793
7	6.500921	42.2620
8	2.032912	4.1327
9	0.974277	0.9492
10	4.613854	21.2876
11	7.231925	52.3007
12	3.119468	9.7311
13	0.725660	0.5266

14	8.128676	66.0754
Other Banks	37.895502	1436.0691
$\sum S^2$		2418.53

Source: Computed by the Authors