

# Banking Sector Performance and Corporate Governance in Nigeria: A Discriminant Analytical Approach

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*This paper sets out to investigate the impact of corporate governance on the banking sector performance. Precisely, it examined firstly, how each variant in the corporate governance structure discriminates against the performance of the banking sector and secondly whether the executive directors and non executive directors are associated negatively and significantly with non performing loans. To accomplish these objectives, the researchers employed discriminant analysis, correlation coefficient and the spearman rank correlation as an alternate method. The results of the analysis revealed that foreign ownership contributed about 187.77 percent of the total discriminant score for the function thereby propelling foreign ownership as the most discriminant ownership variable in banks performance and also implying that a bank's chance of belonging to the group of highly performing banks increases as its foreign ownership increases. The poor performance of the board ownership is not as severe as that of the institutional ownership and government ownership which made the poor and poorer contributions respectively. The results also show that both executive directors and non-executive directors are not significantly associated with non-performing loans. On the basis of these findings, the researchers recommend that the Central Bank of Nigeria in liaison with the Nigerian Deposit and Insurance Corporation should extend intensive surveillance on the role of the directors in the banking sector.*

**Keywords:** Corporate Governance, Executive Directors, Non-Executive Directors, Return on Asset, non-Performing Loans, Discriminant Analysis.

**JEL Classification:** G21

## 1. Introduction

Corporate governance has been seen from several perspectives by different scholars. Jayashree (2006) defines corporate governance as a system of making directors accountable to shareholders for effective management of the companies in the best interest of the company and the shareholders along with concern for ethics and values. It is more of a way of life that necessitates taking interest in every business decisions. A key element of good corporate governance is transparency in projects through a code of good governance which incorporates a system of checks and balances between key players such as board of management, auditors and shareholders. The president of World Bank, J. Wolfensohn, sees corporate governance as promoting fairness, transparency and accountability.

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Article History:  
Received 29 October 2014 | Accepted 15 December 2014 | Available Online 29 January 2015

Cite Reference:  
Okpara, G.C., and Iheanacho, E., 2014. Banking Sector Performance and Corporate Governance in Nigeria: A Discriminant Analytical Approach. *Expert Journal of Finance*, 2, pp. 10-17

OECD (2004) defined corporate governance as involving a set of relationships between a company's management, its board, its shareholders and other stakeholders.

Demis and McConnell (2003) see corporate governance as aimed at reducing conflicts of interest, short-sightedness of writing costless perfect contracts and monitoring of controlling interest of the firm, the absence of which firm value is decreased.

Report of Cadbury committee (1992) defines corporate governance as the system by which companies are directed and controlled. While Wilson (2006) defines it as the manner in which corporations are directed, controlled and held to account with special concern for effective leadership of the corporations to ensure that they deliver on their promise as the wealth creating organ of the society in a sustainable manner.

Nworji, Adebayo and David (2011) contend that corporate governance aims to create an atmosphere whereby Nigerian banks will comply with the laid down rules and regulations without compromise. This will in the end lead to transparency in the banking institutions, proper risk management, adoption of best practices in carrying out duties, strong internal control system, restoration of public confidence, rapid economic growth and in all prevent bank distress which might eventually lead to bank failure.

Sanda, Mikailu and Garba (2005) linked corporate governance with ways in which all parties interested in the well-being of the firm (the stakeholders) attempt to ensure that managers and other insiders take measures or adopt mechanisms that safeguard the interests of the stakeholders.

We can submit that corporate governance in the banks gears towards creating a conducive environment for compliance to the laid down rules and regulations in order to actualise transparency in the banks and achieve maximum desired results that help to avert a run on banks. Good corporate governance should be one devoid of conflicts of interest, short-sightedness of writing costless perfect contracts and monitoring of controlling interest of the firm, the absence of which firm value is decreased (Denis and McConnell, 2003).

## **1.2. Banks and Corporate Governance in Nigeria**

The importance of banks in any economy cannot be underestimated because of their involvement in money creation. Banks in most economies are the principal depositories of the public's financial savings, the nerve centre of the payment system, the vessel endowed with the ability of money creation and allocation of financial resources and conduit through which monetary and credit policies are implemented. The success of monetary policy, to a large extent, depends on the health of the banking institutions through which the policies are implemented. As a result of this central role of banks in the economy, their activities have to be kept under surveillance to ensure that they operate within the law in line with safe and sound banking practices so that the economy will not be jeopardized (Okpara, 2009).

The formal banking sector by mid 1980s had been largely static. The banking system was characterised by low capital base, high non-performing loans, insolvency and illiquidity, over dependence on public sector deposits and foreign exchange trading, poor asset quality, weak corporate governance, a system with low depositors' confidence and a banking sector that could not support the real sector of the economy at 25% of GDP compared to African average of 78% and 272% for developed countries (Ebong, 2006).

The Nigerian financial sector has experienced many changes over the last two decades which included bank distress and reforms of major financial institutions. The radical changes in financial developments in 1987 brought about by the structural adjustment programme of 1986 did not prevent bank crisis. The said innovations of the CBN in 1986 has not been able to provide enough backbone for the financial industry as reflected by the down turn in the events of late 1980s which were characterised by the unprecedented level of distress as depicted by large volume of non-performing loans, insolvency, liquidity problem and default in meeting depositors and inter-bank obligations. This poor state of the banking sector was exposed in 1989 with the government directive to withdraw the deposits of governments and other public sector institutions from banks to CBN. Thus, bank distress became obvious and increased from 7 in 1989 to a peak of 60 in 1995 while the amount required for recapitalisation of distressed banks increased from N1.1 billion in 1989 to N30.5 billion in 1995, N43.9 billion in 1996 while peaking at N98.1 billion in 2004. Non-performing loans for the distressed banks increased from N2.9 billion to N29.5 billion in 1994 and 1995, and increased further to N40.7 billion in 1997 while peaking at N149.6 billion in 2004 (Okpara, 2012).

The general institutional factors that led to distress on the banking system include insiders abuse, weak corporate governance, weak risk asset management and inadequacy of capital. The government owned banks suffered from incessant/frequent changes in board membership and many appointments were made based on political affiliation rather than expertise consideration. Consequent upon this, board members saw themselves as representative, of political parties in sharing the national cake emanating thereof and thus, ascribed their loyalty to the party members rather than the proper running of the bank itself.

On the side of the privately-owned banks, shareholders constituted a problem. According to Olufon (1992), the owner-managers regarded banking as an extension of their operations by appointing their relatives or friends to key positions instead of relying solely on professional managers. Thus, their appointees were mere loyalists who cared for the interest of their masters rather than the business itself (Okpara, 2009). Shareholders quarrels and boardroom squabbles were common among the banks that management attention deviated in favour of unnecessary squabbles

In some banks where harmony seemed to exist, another type of insider abuse took the form of the owners and directors misusing their privileged positions to obtain unsecured loans which in some cases were in excess of their banks statutory lending limits in violation of the provisions of the Banks and Other Financial Institutions Act (BOFIA) of 1991 as amended. In addition, some of these owners and directors were granted interest waivers on non performing insider-credits without obtaining the CBNs prior approval as required by BOFIA (Okpara, 2009). Many published reports on the failure of financial institutions identified poor corporate governance as a major factor. In his study, Okpara (2009) observed that 100% of the loans for the failed financial merchant bank limited was granted to the directors while 80 percent, 76 percent and 69 percent of the loans were granted to the directors in the failed Group merchant bank, credit bank Nigeria ltd and royal merchant bank ltd respectively. These loans obtained by directors were hardly paid back and were usually tagged doubtful loans or written off as bad loans.

The CBN asserted that many of the banks were still in distress and if allowed to fail woefully, the ensuing confidence crisis might lead to disintermediation, demonetization, a collapse of the payment system and a serious depression of the economy (Soludo, 2004). Thus, CBN came up in July 2004 with recapitalization policy of raising the mandatory minimum capital base of N2 billion to a new mandatory minimum of N25 billion before or on December 2005. In the light of these, the apex bank, central bank of Nigeria, came up with a corporate governance code for Nigerian banks which was to be effective from 3 April 2006. In this code Nigerian banks were mandated on corporate governance values which should be in line with the industry standard and will help to further strengthen the sector (Enobakhare, 2010).

The question of how well these banks are acting in line with the CBN corporate governance codes is called for, to ascertain whether their compliance to the laid down rules has impacted positively on the banking sector performance. This paper therefore sets out to examine firstly, the relationship between ownership structure and the performance of the banking sector; secondly to find out how executive directors and non-executive director are associated with non-performing loans.

## 2. Data Analysis Techniques

This study utilizes multivariate techniques of data analysis. Two major statistical tools namely discriminant analysis and correlation coefficients were used as they are suitable for the formulated hypothesis.

The discriminant analysis model classifies the banks into two mutually exclusive categories, performing and non performing firm in the area of return on asset. The classification was also done in the area of non-performing loans. The function of the variables  $X_1, \dots, X_n$  that discriminates as much as possible the two groups under investigation will be a linear combination of the  $X_i$  explanatory variables. The explicit representation of the model is

$$Z = b_1X_1 + b_2X_2 + b_3X_3 + \dots + b_nX_n$$

Where

Z are the discriminant variables performing or non performing for return on assets (ROA).

$X_i$  are the explanatory variables which are Board ownership, Foreign Ownership, Institutional ownership and Government ownership.

$b_i$  are the discriminant coefficients

Discriminant analysis is a multivariate technique for discriminating among groups (in this case, performing banks and non performing banks) and for classifying a set of observation into these groups.

The classification procedure is stated as follows:

If a bank's performance is strong, that is equal or more than industrial average, classify individual bank as belonging to group 1 and assign 1 value

But if banks' performance is not strong, that is does not meet the industrial average, classify the individual bank as belonging to group 2 and assign zero value.

The second and third investigation used Pearson correlation coefficient and then the Spearman rank correlation as an alternate method. The Spearman rank correlation was necessary to avoid spurious result which might arise in using correlation method if the data were not normally distributed.

The correlation coefficient is given by

$$r = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - (\sum X)^2\}\{N \sum Y^2 - (\sum Y)^2\}}}$$

Where  $r$  = Correlation coefficient

$\sum X$  = The sum of values in X distribution

$\sum Y$  = The sum of values in Y distribution

$\sum XY$  = The sum of the product of X and Y values

$\sum X^2$  = The sum of square of X value

$\sum Y^2$  = The sum of square of Y value

$N$  = the number of observations

While the Spearman rank correlation coefficient's estimator is given by

$$r' = 1 - \frac{6 \sum D^2}{n(n^2 - 1)}$$

Where  $\sum D$  is the sum of the difference between rank X and Y.

## 2.2. Population of the study

Our study was drawn from a total population of 21 quoted Deposit money banks as at 2012 in Nigeria.

The authors however decided to eliminate the recently nationalized banks namely, Enterprise bank, Key stone Bank, Mainstream bank and First Inland Bank PLC that has merged with the First City Monument Bank PLC. Also filtered out in this population is Citibank Nigeria Limited for lack of complete data. Thus, our sample population becomes 16 banks out of a total of 21. These banks are shown with their returns on asset for the periods 2003 to 2012 in table 2.1.

**Table 2.1.** Sample Population of the Banks and Their Returns on Assets

Banks	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Access B	10.2	10.9	9.76	13.28	9.08	3.73	2.23	8.81	4.16	5.65
Diamond B	9.8	10.2	5.93	5.52	8.29	4.63	8.25	14.82	10.15	4.9
Zenith B	1.47	1.04	1.66	1.13	1.37	2.08	6.38	5.93	2.91	2.44
EcoB	15.2	18.76	16.25	3.23	9.73	39.82	39.2	16.94	4.12	3.93
FidelityB	2.5	2.11	11.62	16.72	8.12	3.02	28	11.63	4.71	3.73
FirstB	29.7	35.4	24.48	9.05	2.99	1.5	9.1	8.35	2.56	2.49
FCMB	24	25	8.6	43.7	3.29	2.83	8.77	10.08	2.75	2.9
GTB	2.4	2.8	2.11	3.37	2	1.28	11.8	6.74	3.32	2.22
UBA	3.3	3.88	3.45	12.61	4.37	3.51	13.5	14.97	3.88	2.34
StertingB	10.5	11.13	28.41	46.53	24.82	25.64	8.75	7.67	0.27	0.38
SkyeB	13.8	14.77	16.33	22.6	5.33	3.69	4.92	4.64	6.97	8.9
StandandCH	4.2	4.61	3.18	21.53	20.6	12.26	13.6	13.15	6.2	6.1
StanbicIBTC	0.18	0.27	0.08	1.34	1.06	1.54	4.42	4.64	6.97	8.9
UnityB	25.45	23.85	21.04	18.96	18.96	23.84	19.1	40.42	16.84	-
UnionB	40.71	36.2	36.44	46.64	40.2	43.11	44.3	0.12	6	5
WemaB	14.61	17.04	28.77	59.09	23.13	23	53	49.98	42.18	13.74

Source: Various annual reports of the selected 16 banks from the 21 money banks in Nigeria.

## 3. Analysis of Data

Data presented in the appendix were analysed using discriminant analysis, and correlation coefficients firstly to determine the effect of different ownerships on banks performance and the association between executive directors or non-executive directors on non-performing loans.

The impact of institutional ownership on banks' performance is shown in the standardized canonical discriminant function coefficients presented in table 3.1 as follows.

**Table 3.1. Standardized Canonical Discriminant Function Coefficients**

	Function
	1
BOwnership	.113
FOwnership	.511
IOwnership	1.012
GOwnership	-.322

In table 3.1, the discriminant coefficient of institutional ownership in the banks' performance (Iownership) is 1.012, Foreign ownership discriminant coefficient (Fownership) is 0.511, the board ownership (Bownership) is 0.113 while that of Government ownership (Gownership) is -0.322. Thus, the predictive model from the discriminant analysis is stated as:

$$Z = 1.012Iown + 0.511Fown + 0.113Bown - 0.322Gown.$$

In the light of this estimated model, the researchers displayed the mean difference in table 3.2 and then the percentage contribution of individual variables to the total discriminant score in order to ascertain the actual performance contribution in table 3.3 as follows.

**Table 3.2. Group means and means differences for the discriminant variables**

Variables	Performance	Non performance	Mean difference
IOwnership	9.7775	11.9113	-2.1338
FOwnership	26.7837	10.7188	16.0649
BOwnership	6.6625	9.7813	-3.1188
GOwnership	4.1163	0.0000	4.1163

Having shown the mean differences in the above table, the percentage contribution of individual variables to total discriminant scores is presented in table 3.3

**Table 3.3. Percentage Contribution of Individual Variables to Total Discriminant Score**

Variables	Coefficients	Mean difference	Product	Percentage contribution
Iownership	1.012	-2.1338	-2.15941	-49.39
Fownership	0.511	16.0649	8.20916	187.77
Bownership	0.113	-3.1188	-0.35242	-8.06
Gownership	-0.322	4.1163	-1.3254	-30.32
Total			4.37193	100

In the table above, Foreign ownership contributed about 187.77 percent of the total discriminant score for the function, implying that a bank's chance of belonging to the group of highly performing banks (in terms of ROA) increases as its foreign ownership increases. Institutional ownership appeared to make the highest negative contribution (-49.39) to group separation of the discriminant function. The government ownership made second to the highest negative contribution with a score of -30.32%. While board ownership made the most minimal negative contribution (-8.06%). On the basis of these results, the researchers therefore accept that foreign ownership is the most discriminant variable in banks performance in terms of return on asset. The finding therefore propels foreign ownership as the most discriminant variable in banks performance.

The group centroid of the function is presented in table 3.4 as follows:

**Table 3.4. Functions at Group Centroids**

Z1	Function
	1
0.00	0.457
1.00	-0.457

*Unstandardized canonical discriminant functions evaluated at group means*

The estimated centroid for non-performance is found to be 0.457 while that of performance is -0.457. This means that the lower the composite score of the ownership, the higher the probability that the ownership

will be classified as contributing poorly in the return on banks' assets. We also examined the extent of association between the executive directors and Non-performing loans and also between the non-executive directors and non-performing loans, and found that; the association between executive directors and non-performing loans are mutually independent. Though the two variables are negatively associated, the rate at which association exists between them is insignificant.

**Table 3.5. Correlations**

		NPL	EXE	NEX
NPL	Pearson Correlation	1	-.035	-.016
	Sig. (2-tailed)		.898	.953
	N	16	16	16
EXE	Pearson Correlation	-.035	1	-.224
	Sig. (2-tailed)	.898		.405
	N	16	16	16
NEX	Pearson Correlation	-.016	-.224	1
	Sig. (2-tailed)	.953	.405	
	N	16	16	16

However, the researcher employed the spearman Rank correlation in order to authenticate this result in case the distribution of the two variables is far from normal (see Oyeka, 1996). The result of the Spearman rank correlation presented in table 3.6 lent support to the result of the Peasons correlation. That is, the result still maintains that there is no significant association between the two variables.

**Table 3.6. Nonparametric Correlations. Spearman's Correlations**

			NPL	EXE	NEX
Spearman's rho	NPL	Correlation Coefficient	1.000	-.020	.052
		Sig. (2-tailed)	.	.943	.848
		N	16	16	16
	EXE	Correlation Coefficient	-.020	1.000	-.278
		Sig. (2-tailed)	.943	.	.298
		N	16	16	16
	NEX	Correlation Coefficient	.052	-.278	1.000
		Sig. (2-tailed)	.848	.298	.
		N	16	16	16

*Source: Researchers data computation*

The tables (3.5 and 3.6) also examined the relationship between non-executive directors and non-performing loans and found that non-executive directors also have no significant association with non-performing loans. However, judging on relative basis, the non-executive directors seem to be more associated with non-performing loans than the executive directors. The rank correlation coefficient  $r'$  for executive directors is -0.020 while the probability is 0.943 and the correlation coefficient for non-executive is 0.052 with a probability of 0.848. The association shows a positive but insignificant relationship among non-executive directors and non-performing loans. We therefore conclude that there is no significant association between non-executive directors and non-performing loans.

#### 4. Conclusion

Foreign ownership in corporate governance makes the highest positive contribution to the performance of the banking sector in Nigeria. It contributes most to the performance of the sector in term of return on asset (ROA). Institutional ownerships and government ownership made the poorest contributions to the return on bank asset. The poor contribution of board ownership is not as conspicuous as that of the aforementioned.

Thus, a banks chance of belonging to the group of highly performing banks increases as foreign ownership increases.

There is no positive and significant association between executive directors and non-performing loans. This implies that the executive directors make little or no significant contribution in waging war against non-performing loans. The same thing applies to non-executive directors. Thus, on the bases of the findings, the researchers recommend that the central bank of Nigeria in liaison with the Nigerian deposit and Insurance Corporation should extend strict and intensive surveillance on the role of the directors in the banking sector in order to compel them to total compliance.

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## Appendix

*Ownership Structure and Average Return on Assets of Selected Banks*

Banks	Bownership	Fownership	Iownership	Gownership	ROA	NPL
Access B	18.3	0	13.53	0	22.58	5.65
Diamond B	15.7	0	19.26	0	12.14	4.9
Zenith B	0.48	71	0	0	34.54	3.93
EcoB	4	0	0	0	22.38	3.73

FidelityB	3.11	0	0	0	25.42	2.49
FirstB	0	0	35.09	0	22.66	2.9
FCMB	7.14	0	10.91	0	20.43	2.22
GTB	0.05	0	17	0	36.67	2.34
UBA	22.53	14.75	18.39	0	11.28	0.38
SterlingB	2.64	81.9	0	0	-9.22	2.44
SkyeB	10	0	13.64	0	16.86	8.9
StandardCH	2.25	50.7	7.5	0	47.84	6.1
StanbicBTC	0	100	0	0	40.33	9.07
UnityB	0.93	63.57	0	15.36	-200.05	0.2
UnionB	5.83	0	0	7.57	-86.83	5
WemaB	0.29	0	24.29	10	60.55	13.74

*Source: Various Annual Reports and Accounts of Banks, Annual Reports of NDIC*



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