



Empirical Examination of the Activities of Corporate Board and the Incidence of Bank Crisis in Nigeria

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Abstract: This study empirically investigates the effects of corporate governance paying particular attention to the structure of the board of governors and ownership on banks in Nigeria. It verifies if the addition of corporate governance variables to the financial crisis equation raises the accuracy level in comparison with the equation that is based only on economic and financial data. Panel data statistical methodology and logit model were applied to data from Nigeria banks spanning over the period 2000 and 2013. Our results show that the incorporation of corporate governance variables improved the equation by 79.15%. We also found that size of the board positively correlated with banks' financial crisis. The researchers recommend the following among other things: The Banks regulatory authorities should pay close attention to their oversight functions of monitoring and supervision of banks. The size of the board of directors has great effects on the likelihood of bank crisis. Hence, unalloyed attention has to be paid to avoid distress. Governance mechanisms have to be set up by the shareholders so as to prevent financial crisis. This action will in no doubt lead to the shareholders realization of their investment choices.

Keywords: Nigeria, Corporate Governance, Ownership Structure, CBN, Bankruptcy.

1. Introduction

One of the most fundamental questions ever raised as regards the actual economic crisis has been the part corporate governance plays in the occurrence of companies' crisis and their eventual folding up. Specifically, previous researches have pointed out the problems between managers and shareholder. When the companies are in a context of financial distress situation, the part played by the board of directors in its oversight function of monitoring and controlling managerial activities and behaviour in those cases comes to question. In this sense, many researchers have reiterated the importance of corporate governance and its control on the likelihood of financial crisis of both commercial entity at large and banking crisis specifically (Donker *et al.*, 2009; Fich and Slezak, 2008). Nevertheless, most of these work focused principally on certain context. For example, most of them look mainly on such countries as United States, China and Taiwan and they focused on bankruptcy or legal processes. For this reason, analysis into other geographical regions and to other financial distress conditions different from bankruptcy is imperative and this will no doubt contribute to the existing literature. In line with this therefore, looking at the delicate nature of Nigeria's banking sector and its incessant crisis; there is the need to x-ray the position and roles of corporate governance in the banking crisis in Nigeria.

This study is significant among other things to seek to offer solutions to the incessant banking sector problems in Nigeria. In addition, to restore the confidence of customers and shareholders in Nigeria's banking sector.

In 2005, the Nigerian financial system went through significant structural changes which contributed to the 2008–2009 crises and beyond. Presently, Nigeria banking system has over 80 percent % financial sector assets which stood at about 53.6 % of GDP (CBN, 2010). Due to consolidation and recapitalization programme in the sector, the number of banks dropped from about 90 in 2005 to 24 by

2006 and by the end of 2011, there were 20 commercial banks, with ₦18.2 trillion assets and ₦12.5 trillion in deposits (about US\$81 billion), and one Islamic (non-interest) bank. Three banks are foreign owned. They hold about 14 percent of assets in the industry. Three banks are publically owned. They hold about 5 percent of industry assets. The others are domestic and privately-owned. The banking crisis had its origins in the forced consolidation of the sector in 2005-2006. The consolidation was not accompanied by sufficient supervision to ensure that the capital of merged institutions was adequate. During this period, there was a high growth rate of credit to the private sector and most of the expanded credit was used to purchase equities, in many cases in the stocks of domestic commercial banks that were extending the credit (CBN, 2010). When the equity bubble burst, nonperforming loans (NPLs) rose from 6 percent to 28 percent of total loans in December 2009. Ten banks were badly affected because of their large exposure to equity-related loans. The crisis triggered a sustained depreciation of the domestic currency and a sharp fall in the highly inflated stock market. Excessive margin lending and unhedged loans to oil importers that became nonperforming, as well as other credit malpractices, resulted in a spike in NPLs in the banking system.

A special examination in the autumn of 2009 of all banks by the CBN and the NDIC revealed that 10 banks, accounting for about a third of the banking system assets, were either insolvent or undercapitalized. The examination reports were finalized in August 2009 and revealed that banks had sizable off balance sheet instruments that concealed NPLs while, in other cases, NPLs were rolled over or otherwise classified as performing. Serious governance problems were also identified. There were serious cases of connected lending and undercapitalization. The CBN replaced management in eight banks and proceeded to take action against the ex-CEOs and directors. In addition, there were widespread governance issues, such as insider abuse and involving criminal activity.

The Nigeria situation has corporate governance characteristics that is different from other clime's corporate governance, such as ownership concentration, unitary board system, and voluntary good governance practices. Having said this, it is more likely that there is important organizational conflict in financial distress situations. So, the study of relationship between financial distress and corporate governance of Nigerian banks provides support for this type of contexts.

Having said this therefore, we now focus our attention on several aspects of governance characteristics such as the board structure and ownership of the firm. When we talk about concentrated ownership especially in companies and banking in particular, it is usually common occurrence to have conflict of interest between the minority shareholders and the major shareholders or the people known as the controlling shareholders, rather than between management and shareholders. This is usually the case because controlling shareholders are usually expected to supervise; monitor and control the management (Shleifer and Vishny, 1997). According to Bebchuk (1999), Porta *et al.* (1998), the controlling shareholders status gives the shareholders the authority to control a corporation and it equally grants them the opportunity to annex corporate funds for their private benefit at the expense of other shareholders. Hence, it is most likely that the controlling shareholders' presence could have a damaging effect to the firms. This effect may increase the chance of corporate distress.

The problem of annexation of fund caused by major shareholders tend to be more serious when the major shareholders own more voting rights comparative to their cash flow rights. This could equally occur when the major shareholders also serve purposes as executive directors or managers (Claessens and Joseph, 2002). We presume that the annexation of funds by the major shareholders not only weakens corporate value and reduces firm's productivity; it also increases the problem of corporate financial crisis. Put differently, the greater the difference between the cash flow rights and the voting right the major shareholders command, the higher the chance of financial crisis. Moreover, the higher the proportion of board seats occupied by major shareholder, the more the problem of financial crisis. There should also be positive correlation between major shareholders' participation in top management and the likelihood of financial crisis.

Nevertheless, the major shareholders are of utmost importance in top management if they can fill and perform very important tasks of governance in the organization. For as much as they control major shares of the banks' resources, they have strong power and influence to effectively monitor management decisions to make sure that the management's decisions are consistent with overall goals of the organization (Shleifer and Robert, 1986). Worthy of note also is the fact that the more cash flow rights the major shareholders have, the less it seems for them to annex minority shareholders' funds. From the foregoing analysis, it is obvious that a larger ownership stake may better put them in the right position to protect the minority shareholders interest (Claessens and Joseph, 2002). As a result of alignment and

monitoring effects of the major shareholders, the major shareholders presence may reduce the probability of corporate crisis.

2. Objectives of the Study

The main objectives of this research are:

1. To verify if the addition of corporate governance variables in the financial crisis equation raises the accuracy level in comparison with the equation that is based only on economic and financial data.
2. To empirically investigate the effects of corporate governance as regards board structure and ownership on banks.

3. Literature Review

Two factors have been identified as important determinants for banks' financial crisis. These factors are the ownership structure of the banks and the board's ability to act efficiently. So, we x-ray the role of ownership structure and then the composition of the board on the likelihood of banks' financial crisis.

4. Ownership Structure of the Banks

Previous researches questioned the influence of ownership position and board structure on the likelihood of banks financial distress. The shareholders that have large stance in the ownership of the bank tend to loss great deal of resources for their involvement in a financially distressed company. In order to avoid these loses, it is imperative therefore that they take upon themselves the responsibility of exercising an important supervisory function on opportunistic management behavior. This in turn, will reduce the likelihood of financial crisis situation (Donker *et al.*, 2009; Elloumi and Gueyie, 2001). Convergence theory states that the participation of board of directors in shareholding is a powerful platform to help align their interests with the interests of other shareholders (Shleifer and Vishny, 1997). These interests alignment will in no doubt maximize the value of shares. As a result, there is high expectation that the directors will struggle and ensure that the firms they hold shares in survive.

5. The Board Structure of the Banks

The business failure theory posited that weak corporate governance raises the chances of the opportunistic behavior of management or major shareholders to act selfishly. This may lead to the management expropriating funds from other shareholders (Johnson *et al.*, 2000; Rafael *et al.*, 2000). This in turn will in no doubt increase the probability of financial distress. The weakness of the board of directors can easily be accessed through its structure and composition.

We measure the independence of the board of directors firstly, by the extent the duties of the Chief Executive Officer (CEO) and the Chairman are separated and secondly, by the proportion of independent directors on the board. Though, there is no generally established effect from literature on the CEO duality, that is, the same person functioning as both the CEO and the Chairman) on the likelihood of banks' crisis. According to Baysinger and Hoskisson (1990); and Jensen (1993), the positive effect (CEO duality raises the chances of financial crisis) and is attributable to lack of independence and the inability of the board to supervise the managers effectively. On the contrary, the negative effect (CEO duality reduces the likelihood of financial crisis) is attributable to effective control measures and efficient leadership of the board. This reduction in the likelihood of financial crisis may not be unconnected to improvement in the information dissemination which eventually will reduce agency costs. All these factors will ultimately reduce the potential clashes of interest between CEO and Chairman (Davis *et al.*, 1997). From the foregoing, we noticed that there is lack of consensus; a bi-directional effect was noticed on the influence of CEO duality on the probability of financial crisis.

Moreover, literature shows that independent board of directors could effectively monitor and supervise opportunistic behaviors of the managers (Chang, 2009; Daily, 1995; Fich and Slezak, 2008). With this approach therefore, banks with higher proportion of outside directors are not likely going to face crisis. This outside board is believed to have the gut, the authority and the power to efficiently impose the necessary measures in order to prevail over a possible failure situation (Deng and Wang, 2006; Elloumi and Gueyie, 2001; Fich and Slezak, 2008).

Secondly, there are two different views that were supported by literature on board size. First, the Resource Dependence Theory (RDT) documented that there are advantages the organization have if the boards are large. These advantages include the ability of the company to access the information and resources from the directors which may be needed to actualize the objectives of the business (Pearce and

Zahra, 1992; Pfeffer, 1973). From this view, the board size and the likelihood of bank crisis would have a negative correlation. Nevertheless, previous researches show some challenges inherent with big size of the board. These problems include among other things, the greater proportion of its members to pursue their selfish interests to the neglect of the general interest of the organization (Chaganti *et al.*, 1985). Another area of challenge is on the area of being effective and to maintain strategic direction when turbulent economic environments is obvious (Goodstein *et al.*, 1994). In this regard, smaller boards are more efficient in the achievement of mechanisms for corporate control (Jensen, 1993), thereby reducing the likelihood of financial crisis (Fich and Slezak, 2008).

As regards this, we propose that the incorporation of financial ratios with corporate governance variables to the financial crisis models, contributes to raise the accurateness of the model. So, we suggest the following research hypothesis:

H1. Incorporating traditional financial ratios in corporate governance variables help to improve the level of accuracy of distress prediction models.

6. Methodology, Materials, Sources of Data and Results

The authors used data from Nigeria banks between 2000 and 2013. The choice of this period was informed by the fact that major banking reforms (2004/2006) and global banking crisis (2008/2010) occurred within those years. We applied panel data statistical methodology in order to answer the main research objective as explained above.

The researchers made use of the corporate governance variables so as to test the improvement of the financial distress equation. Data were collected from Central Bank of Nigeria (CBN) statistical bulletin, Central Bank Bullion and Corporate governance magazines of various banks spanning 2000 to 2013. The work of Alba *et al.* (2014) on panel data (the combination of time series and cross-sectional data) where they used a binary logistic regression was a valuable insight to the methodology of this work. For this reason, two logistic regression equations were used:

(1) Financial Data Equation (FDE) (Pindado *et al.*, 2008):

$$FC = \beta_0 + \beta_1 PM + \beta_2 FE + \beta_3 RE + d_t + \eta_{it} + u_{it}$$

(2) Financial Data Equation plus Corporate Governance Variables (FDECGV) (Alba *et al.*, 2014):

$$FC = \beta_0 + \beta_1 PM_{it} + \beta_2 FE_{it} + \beta_3 RE_{it} + \beta_4 BDOW_{it} + \beta_5 OWNCON_{it} + \beta_6 CEOD_{it} + \beta_7 BO_{it} + \beta_8 BS_{it} + \beta_9 \Sigma CV_{it} + d_t + \eta_{it} + u_{it}$$

where:

FC = Financial Crisis. This is a dependent variable (dummy variable) which takes the value 1 if the banks' earnings before interest and taxes fall and amortization is lower than financial expenses for two years concurrently and/or if the banks market value falls in two consecutive period and 0 otherwise.

PM = profitability measure which is the total earnings before deductions on taxes and interest are made

FEX = financial expenses which is financial expenses by the total assets at the start of the period.

RE = retained earnings is measured from the start of the period as the total earnings of a firm.

OWNCON = ownership concentration calculated as the ratio of shares owned by major shareholders

BDOW = board ownership is the ratio of shares own by the board of directors

CEOD = CEO duality is a dummy variable which is 1 if there is duality and 0 otherwise.

BO = outside board is calculated as the ratio of independent directors to the sum of directors

BS = board size is the number of members in the board

CV = control variables are firm size (calculated as the log of total assets).

i: the cross sectional unit (Bank, $i=1, \dots, N$)

t: the time period (i.e. year, $t=1, \dots, T$)

d_t: the time effect

η_i: the individual effect

u_{it}: the stochastic term

Table 1: Logistic Regression Models Result

Dependent Variable(FC)	FDE (Model 1)			FDECGV (Model 2)		
	Beta	Sig.	Odds Ratio	Beta	Sig.	Odds Ratio
PM	-3.851	0.000	.0212	-4.241	0.000	0.014
FEX	10.931	0.038	55.723	16.665	0.008	2.407
RE	-0.111	0.684	0.8951	-0.239	0.439	0.787
OWNCON	-	-	-	0.5812	0.148	1.788
BDOW	-	-	-	-1.120	0.030	0.325
CEOD	-	-	-	0.494	0.057	1.639
BO	-	-	-	-1.081	0.136	0.339
BS	-	-	-	0.132	0.751	1.014
LOGTA	-	-	-	-0.247	0.020	0.780
INDUSTRY (Dummies)	-	-	-	-	-	-
Constant	-0.391	0.190	-	4.49	0.017	-
-2 Log Likelihood	-266.153			-255.454		
McFadden R Squared Adjusted	0.043			0.047		
R Cuadrado de Nagelkerke	0.145			0.203		
Correct Prediction (%) (Noted: No-Predicted: No) Specificity	44.36%			65.14%		
Correct Prediction (%) (Noted: Yes. Predicted) Sensitivity	69.67%			79.15%		
Overall (%)Prediction	62.05%			73.24%		
ROC Curve	0.6518			0.7405		

Source:

When we juxtapose the two equations, the improvements are noticed. The equation percentage Correct Prediction Sensitivity (CPS) between the two equations (That is, equation 1 and equation 2) are 69.67% and 79.15% respectively. We run the Overall percentage prediction tests in order to determine the difference between the equations. The outcome of these tests shows that Equation 2 fits the data significantly than the restrictive Equation (Equation 1). The overall percentage prediction in Equation 2 gives better result of (73.24%) than in Equation 1 that gives (62.05%). Put differently, incorporating governance variables (Equation 2 (FDECGV)) to financial variable (Equation 1(FDE)) no doubt improves the equation.

Considering the profitability variable (Equation 2), the co- efficient $b_1 = -4.241$, $p < .001$) is significant. A higher profit has negative effects on the probability of bank crisis and is in line with the apriori expectation.

As stated above, we accept the hypothesis (H1), which stated that corporate governance variables help to determine the level of accuracy of the equation (based solely on financial ratios), since there are improvements in Equation 2 to explain the level of accuracy in banking financial crisis.(See table 1 above).

The empirical evidence has no generally accepted direction of the Board size in determining the likelihood of bank crisis. However, we established a positive impact of the Board size on financial crisis likelihood. The co-efficient of the board size (Equation 2: $b_8 = 0.132$) which corroborates the work of Alba *et al.* (2014). But on the contrary, Xavier (2014) discovered a negative relationship between chances of banking crisis and the board size. However, the relationship between Board independence and banking crisis is not significant.

The tests for goodness of fit show that both equations (Equation based on Financial Data alone (FDE) and equation based on Financial Data and Corporate Governance Variables (FDLCGV)) have good overall results. On the one hand, although the R^2 and McFadden Nalgerkerke show an acceptable overall fit, it is slightly higher for the equation that incorporates the variables of corporate governance (FDLGCV) than for equation that has only economic and financial variables. This is because the equation was a specific equation; that is, the chance of determining correctly a stable financial position, which is 44.36%

in the FDE Equation in comparison with 65.14% in the FDECGV Equation. Receiver Operating Characteristic (ROC) curves (table above) show this evidence.

7. Discussion, Summary of Findings and Conclusions

This study adds to the literature on corporate governance. It did this by proper examination of the functions of the board on the likelihood of banks financial crisis events. Using a dataset of Nigeria banks which data are available, we applied panel data statistical methodology so as to answer the main research objectives. A logit model was also used to examine the differences in board characteristics. Our results also show that the incorporation of corporate governance variables improved the equation. We also found that size of the board positively correlated with banks' financial crisis. This result is in line with our prediction. We demonstrated that the addition of corporate governance equation could raise the accuracy of the prediction equation.

Our demonstration that the size of the board correlates positively with the likelihood of banks' crisis corroborates the results of previous empirical studies (Alba *et al.*, 2014; Chaganti *et al.*, 1985). The agency theory argued that the increase in the size of the members of the board may increase the supervision and monitoring of the CEO. Moreover, Zahra and Pearce (1989) argued that large size of the board has good impacts on the diversification of the capability. Goodstein *et al.* (1994) documented that the large size of the board is likely to increase the existence of external connections. Zahra and Pearce (1989) therefore concluded that diversification of capabilities and the existence of external connections will invariably reduce the banks' likelihood of financial crisis.

8. Recommendations

This study documented that board characteristics have great impacts on the probability of banks' financial crisis. Hence, for Bank regulatory authorities, managers and shareholders, we recommend as follows:

1. The Banks regulatory authorities need to pay close attention to their oversight functions of monitoring and supervision of banks,
2. The size of the board of directors has great effects on the likelihood of bank crisis. Hence, unalloyed attention has to be paid to avoid distress.
3. Governance mechanisms have to be set up by the shareholders so as to prevent financial crisis. This action will in no doubt lead to the shareholders realization of their investment choices.
4. Banks are definitely concerned about the risks involved in failure. This is obvious because their income is a function of the progress made in their day to day activities, Hence, the need to be prudent.

The gap created in this study calls for interested researchers to use a more detailed dataset which may include the information concerning the financial and commercial difficulties that led these banks to difficult financial position. More so, since governance environments in different countries vary, it could be needful to study the effects of board of directors across different governance environments. Finally, the nexus between corporate governance and financial crisis in both financial, non- financial and commercial businesses have been poorly investigated, more research work need to be done in that direction.

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