

CORPORATE GOVERNANCE AND BANKRUPTCY RISK IN COMMERCIAL BANKS IN NIGERIA

¹Ofurum Christmas Ifeanyi D. and ²Nwachukwu Rapheal

¹Department of Accountancy, Alex Ekwueme Federal University, Alike Ikwo, Ebonyi State

²Department of Accountancy, Tansion University Umunya, Anambra State

Email: Christmas.ofurum@funai.edu.ng / chikwute@yahoo.com

DOI: <https://doi.org/10.5281/zenodo.14888292>

Abstract: *This study determined the effect of corporate governance on bankruptcy risk in commercial banks in Nigeria, using risk management committee and board of directors' independence. Ex Post Facto research design was adopted for the study. A sample of eight deposit money banks was used for the study. Data were obtained from the annual reports and audited accounts of the banks under assessment. Altman's original model for public companies was used to extract data and the formulated hypotheses were tested with regression analysis with aid of E-View 9.0. The analysis and hypotheses tested shows that risk management committee has no significant effect on bankruptcy risk commercial banks in Nigeria. However, the study revealed that board of directors' independence has a positive significant effect on bankruptcy risk commercial banks in Nigeria. Based on the results, the study recommended among others that risk management committee should be encouraged, since the committee can influence the capacity for problem-solving as the variety of perspectives that identifying the weakness of internal control and risk source that can easily use in checkmating bankruptcy.*

Keywords: *Corporate governance, Risk management committee, Board of directors' independence and Bankruptcy risk*

Introduction

Bankruptcy has often been discussed and investigated in the recent years. While there has been attention related to corporate bankruptcy in the accounting and finance literature, focus has been mainly on predicting bankruptcy based on financial data (Altman, 2000). Though, this phenomenon having already been observed in recent high-profile bankruptcy events, some studies has been carried out on corporate governance on the bankruptcy risk, it is an open empirical question how the relation of corporate governance to the likelihood of bankruptcy.

Strong corporate governance (SCG) practice guarantees transparency and consistency in financial statements. Firms can approach external sources at low costs when they have the confidence of investors (Tricker & Tricker, 2015). Additionally, the implementation of SCG practice ensures the

usage of the optimal business strategy to maximize firm value and mitigate related risks in the future (Husson-Traore, 2009; Manzanegue et al., 2016). The collapse of corporations resulting from the financial crisis of 2008 is evidence of the ramifications of weak corporate governance (WCG) implementation (Kumar & Singh, 2013; Mehran et al., 2011). SCG policies shield firms from the risk of financial distress or insolvency, which are among the biggest causes of bankruptcy. The role of SCG adoption in mitigating financial distress has been well recognized in developed countries. Many researchers have conducted empirical research on the impact of good corporate governance (CG) implementation on the probability of financial distress. These studies have homogeneously proven the adverse effects of good CG practice on the likelihood of distress risk (Bravo-Urquiza & Moreno-Ureba, 2021; Miglani et al., 2015). Although developing countries appreciate the importance of CG, the benefits of CG, which have functioned only with good CG adoption, have not been a priority. Therefore, CG implementation in transitional economies is lacking (Nurunnabi, 2020).

Nigerian Banking Sector plays a very crucial role in the socio-economic development of the country and significantly contributes to the Gross Domestic Product of the nation (Ighoroje & Egedi, 2015). However, the sector has over the years experienced turbulence and in some cases failure. Between 2009 and 2019 according to NDIC (2020), the Central Bank of Nigeria (CBN) revoked the licenses of 8 failed banks. The federal high court issued orders for them to be wound up and appointed the Nigeria Deposit Insurance Corporation (NDIC) as liquidator of the banks. The Central Bank of Nigeria in these periods, withdrew the banking licenses of some of these banks and the NDIC stepped in, creating bridge banks (temporary banks) to acquire the assets of the banks so as to continue operations on a fresh note (Wurim, 2013).

An efficient and effective banking sector in the economy is essential not only for the promotion of efficient intermediary role but also for the protection of depositors, encouragement of healthy competition, maintenance of confidence in, and stability of the system and protection against systemic risk and collapse. The gruesome impact of ill health in the banking sector has affected almost all facets of the society - the government, regulatory authorities, creditors, equity investors, the bankers as well as the general public.

This study therefore, ascertains the effect of corporate governance on bankruptcy risk in commercial banks in Nigeria. Specifically, the study sought to:

1. Evaluate the effect of risk management committee on bankruptcy risk deposit money banks in Nigeria.
2. Assess the effect of board of directors' independence on bankruptcy risk deposit money banks in Nigeria.

Literature Review

Corporate Governance

The set of recommendations and rewards called "CG" are used to direct and modify an employer's management (Ehiedu, 2022; Adeusi, Akeke, Aribaba & Adebisi, 2017). Ehiedu and Ogbeta, (2014) opined that company governance is an institutional setup that restrains the excesses of commanding managers. Ensuring that the agency is operated efficiently and buyers earn a fair go back is the center reason of corporate governance (Kajola, 2018). If an employer is run with diligence, openness, accountability, and duty with the aim of maximizing shareholders' wealth, that company is taken into consideration to have complied with the CG rule (Pandy, 2018).

Corporate governance is worried with how all parties (stakeholders) worried inside the firm's achievement attempt to guarantee that managers and different insiders are constantly taking proper movements or imposing approaches that shield the stakeholders' hobbies. Corporate governance tools assure shareholders of adequate returns on investments. Corporate governance changed into created to guard the hobbies of shareholders however an increasing number of gained significance has for other stakeholders and society (Mohammad, Aly, Dixon, & Startling, 2014).

For Corporate governance systems, another key component for a business enterprise is the presence of inner and external auditors. In this feel, literature has shown that the presence of internal and outside audit systems could have a huge impact on changes to a agency's monetary overall performance and on its possibility of default (Guo et al., 2016 and Cenciarelli et al., 2018, amongst others). Inner and outside auditors can guarantee the best of the information of the economic reviews furnished via the organization for buyers (Bratten et al., 2013), and their role has relevant consequences for the duration of a economic crisis (Cenciarelli et al., 2018). On this feel, also the presence of the audit committee will have a giant high-quality effect in stopping the danger of frauds and irregularities (Beasley et al., 2000). For distressed companies especially, statutory auditors and outside auditors are obliged to choose the ability of the business enterprise to operate as a going concern entity for the following three hundred and sixty-five days.

Bankruptcy

Bankruptcy refers to the situation in which the debtor company becomes unable to repay its debts and can be considered to be the consequence of a company's inability to survive market competition, reflected in terms of job losses, the destruction of assets, and in a low productivity (Aleksanyan and Huiban 2016). The risk of bankruptcy or insolvency risk shows the possibility that a company will be unable to meet its debt obligations, respectively the probability of a company to go bankrupt in the next few years. Assessing of bankruptcy risk is important especially for investors in making equity or bond investment decisions, but also for managers in financial decision making of funding, investments and distribution policy. Failure prediction models are important tools also for bankers, rating agencies, and even distressed firms themselves (Altman et al. 2017).

The essential information for executive financial decisions, but also for investors decisions are provided by financial statements. Thus, companies' financial managers should develop the financial

performance analysis and problem-solving skills (Scapens 2006), without limiting their duties in verifying accounting data (Diakomihalis 2012) in order to maintain the firm attractive for investors. The image of financial performance of companies is affected by the estimation of its position in front of investors, creditors, and stakeholders (Ryu & Jang 2004). For this estimation there are used many indicators that reflect the company's position such as: net working capital, net treasury, liquidity, solvency, profitability, funding capacity, cash-flow, etc., or a mix between them, such as Z-scores.

Bankruptcy Prediction

In addition, a prediction (Latin *præ-*, "before," and *dicere*, "to say"), or forecast, is a statement about a future event. A prediction is often, but not always, based upon experience or knowledge. There is no universal agreement about the exact difference between the two terms; different authors and disciplines ascribe different connotations. Although future events are necessarily uncertain, so guaranteed accurate information about the future is in many cases impossible, prediction can be useful to assist in making plans about possible developments; Howard H. Stevenson writes that prediction in business "... is at least two things: Important and hard (Stevenson, 2008).

In statistics, prediction is a part of statistical inference. One particular approach to such inference is known as predictive inference, but the prediction can be undertaken within any of the several approaches to statistical inference. Indeed, one possible description of statistics is that it provides a means of transferring knowledge about a sample of a population to the whole population, and to other related populations, which is not necessarily the same as prediction over time. When information is transferred across time, often to specific points in time, the process is known as forecasting (Cox, 2006). Forecasting usually requires time series methods, while prediction is often performed on cross-sectional data.

Bankruptcy prediction has been one of the most challenging tasks in accounting since the study of FitzPatrick in 1930's and during the last 60 years an impressive body of theoretical and especially empirical research concerning this topic has evolved (Altman, 1968).

The Altman models have been challenged by approaches directly producing probabilities of bankruptcy, such as the logit model, as well as by more advanced machine-learning methods. Direct application of the Z-Score or its variants has proved problematic in other countries, under other legal regimes (accounting principles), and in other time frames. However, indirect applications (e.g., models with the same variables estimated for a new data set) are still acceptable. Let us cite here the paper by Altman et al. (2017) that shows the validity of the Z-Score approach internationally with large data sets, also compared to logit models that performed similarly or better. It is also worth referencing the paper by Barboza et al. (2017), which compares several machine-learning methods to discriminant analysis and logistic regression in predicting bankruptcy. It turns out that the Altman Z-Score variables fare relatively well in other setups and models.

Today a large area of finance is dedicated to forecasting financial distress or bankruptcy, employing appropriate methodology. Nonetheless, it seems that the finance profession in academia still does not recognize this new methodology as staple content in core corporate finance and accounting courses. The notable exceptions are textbooks by Damodaran (Applied Corporate Finance, 5th ed., Damodaran, 2015) and Berk and DeMarzo (Corporate Finance, 4th ed., Berk & DeMarzo 2017).

The methodology of bankruptcy modelling may be attributed to financial micro econometrics and more recently, to advanced data analysis. Financial micro econometrics “emerges as a natural consequence of applying statistical and econometric methods to corporate finance, accounting, and other fields of finance; the applied edge of research in accounting and corporate finance is inevitably linked with the use of notions such as statistical sample, population, and the operation on sets of microdata” (Gruszczyński 2018).

Corporate Governance and Bankruptcy Risk

Bankruptcy is the consequence of financial distress, which happens when the company defaults its financial commitments. Companies try to restructure their assets and liabilities to avoid bankruptcy and financial distress. Recent studies have found that corporate governance mechanisms can improve a firm's ability to predict bankruptcy (Dalia, 2023). For example, Fich and Slezak (2008) studied the effect of corporate governance characteristics on a company's ability to predict and avoid bankruptcy for a sample of 781 USA companies from 1992 to 2000. The results indicated that a large number of directors, the more independent directors, and the large ownership of inside directors have a significant negative effect on bankruptcy risk. Companies with good governance are less likely to suffer financial distress. In this context, Hui and Jing-Jing (2008) examined the relationship between corporate governance mechanisms and financial distress costs for a sample of 193 companies listed on the Shanghai Stock Exchange during the period 2000-2006. The results demonstrated a significant negative impact of board independence and the proportion of companies' shares owned by the state on the costs of financial distress (Dalia, 2023).

Further, board size and institutional ownership were found to have an insignificant impact on bankruptcy risk. Conversely, Darrat et al. (2014) studied the impact of corporate governance on bankruptcy risk for a sample of 217 USA bankrupt companies during 1996-2006. The results documented that the large number of directors reduced bankruptcy risk. These results also suggested that the proportion of inside directors is negatively associated with bankruptcy risk. Shahwan and Habib (2020) found an insignificant negative impact of the board of directors' structure, ownership structure, shareholders' rights, and investor relations on companies' financial distress. Further, In the Sri Lankan context, Uduwalage (2021) investigated the relationship between corporate governance mechanisms and a company's financial distress for a sample of 205 non-financial companies listed on the Colombo Stock Exchange in 2012. Uduwalage found that board size, board independence, board

ownership, institutional ownership, and non-institutional ownership concentration enhanced a company's prediction of financial distress.

Empirical Review

Begum, Sarker and Nahar (2023) investigated the relationship between corporate governance and the likelihood of financial distress. To evaluate the impact of corporate governance on financial distress, a multiple regression model and longitudinal panel data are used. Corporate governance is determined by the board of directors, audit committee, and ownership structure, whereas the Altman Z-score is used to indicate financial distress. The findings imply that financial distress is influenced by corporate governance variables (board independence, auditor independence, auditor opinion, sponsor directors ownership, and foreign shareholders), and firm-level variables (sales growth, performance, liquidity, firm size). From an academic standpoint, this paper adds to our understanding of the association between corporate governance practices and the risk of financial distress in emerging markets like Bangladesh. The findings may encourage Bangladeshi listed companies to follow and implement good corporate governance practices, increasing investor, regulator, and stakeholder confidence.

Alberto, et al (2022) compare the performance of corporate governance variables in predicting corporate defaults, using both the Logit and Random Forest models, which previous researchers have deemed to be the most efficient machine learning techniques. Their results show that the use of corporate governance variables – especially with regards to CEO renewal and stability in the composition of the board of directors – increases the accuracy of the Random Forest technique and influences the success of the turnaround process. This paper also confirms the Random Forest technique's ability to significantly outperform the Logit model in terms of accuracy.

Okoye and Okoye (2022) investigated the effect of corporate governance on bankruptcy risk in deposit money banks in Nigeria, using board of directors' independence. Ex Post Facto research design was adopted for the study. A sample of nine deposit money banks was used for the study. Data were obtained from the annual reports and audited accounts of the banks under assessment. Altman's original model for public companies was used to extract data and the formulated hypothesis was tested with regression analysis with aid of E-View 9.0. The analysis and hypothesis tested show that board of directors' independence has a positive significant effect on bankruptcy risk of deposit money banks in Nigeria. Based on the findings, the study recommended that the board of directors' independence be strengthened in order for the board to be more effective at preventing and avoiding bankruptcy once the company becomes distressed.

Ayoola and Obokoh (2018) investigated the effect of corporate governance on financial distress in the Nigerian banking industry and examines the discriminatory power of corporate governance mechanism of the board, audit committee, executive management and auditor in one model for financial distress prediction. Secondary data obtained from annual financial statements of twenty banks between 2005 and 2015 were used for the study. The data were analyzed using descriptive

statistics and generalized quantile regression model. The empirical evidence from the study suggests that financially distressed banks are characterized by large board size with members who may not be well versed in banking complexities, chairmen and CEOs with significant shareholding both individually and collectively. Furthermore, the evidence also shows that distressed banks suffer major decline in customer deposits despite increase in size. The study concludes that financial distress can be caused by poor corporate governance mechanism.

Mwawughanga and Ochiri (2017) examined the financial health of banks listed and also not listed in the Nairobi stock Exchange, Kenya using the Altman Z score model of 2005. The CBK have the regulatory mandate to keep on check the financial health of banks considering that the Kenyan economy largely depends on banks. Following the many bank failures in Kenya, the CBK and the Kenya Bankers association have been pushing for improvement including transparency on commercial banks. Ever since the 2008 financial crisis, financial health of banks has been a concern to corporate managers and other stakeholders. This study therefore applies Altman Z score, a multivariate financial analysis model to gauge the financial health of banks in Kenya. The ratios that form the model were the independent variables and they included Working capital to total assets and Retained earnings to total assets. Studies on applicability of Z score model appear rare/scanty especially on financial institutions and mainly focused on validity and effectiveness. The secondary data was extracted from audited annual reports and financial statements of banks' respective websites and CBK for a period from 2010 to 2015. The annual financial statements included the statement of comprehensive income and statement of financial position. In the analysis Multivariate Discriminant Statistical techniques as used by Altman 2005 was applied. Results indicated that during the period under study high percentage of Kenyan banks were on grey zone. Conclusions were made that Altman model was an average tool which can only be relied alongside other measure.

Ezejiolor, Nzewi and Okoye (2014) assessed the extent to which we can rely on the Altman Model to predict possibility of corporate bankruptcy/ failure in Nigerian banking sector. Data were collected from annual reports and accounts of the banks. Altman prediction was applied. Findings show that the Model was capable of measuring accurately the failure potential of sound and healthy banks. Findings also show that Altman bankruptcy prediction Model could have successfully predicted the failure of the banks that actually went under in the Nigerian banking sector. The implication of this finding is that the standard rating system of regulatory Authorities for predicting the extent of failure in the Nigerian banks is still low, hence, Nigeria has had ample cases of bank failures in the past; it would have been prevented if they had applied a model similar to Altman's z-score. Based on this, researcher recommends that effort should be made by the regulatory authorities and agencies in the financial sector to domesticate the Altman's model for a result-oriented monitoring of the health of banks. Again, there is the need to bring financial system under control and make them to fit for the service and the interest of depositors and shareholders.

Methodology

Research Design

Due to the nature of the study, Ex Post Facto research design was adopted. The study analyzed the audited accounts of banks. This involves use of financial accounts of the banks under assessment for the period, 2012-2023 to generate the financial ratios that discriminated the most in prediction of healthy banks using Altman Model.

Population of the Study

This population of this study consists of the 8 deposit money banks quoted on the Nigerian Exchange Group. The study covered ten years annual reports and accounts of these banks from 2012 to 2023.

Sample Size of the Study

As a result, the "purposive sampling technique was applied (Non-random sample). In this method, the sample is chosen based on what the researcher thinks is appropriate for the study. The banks licence with international authorization was chosen which consist a total of eight (8) out of the twenty-two (22) deposit money banks which was inevitably excluded during the data collection process due to incomplete data, hence majority of the other banks are those that either emerged or acquired during the period the study covered without international authorization (See appendix for details).

Source of Data Collection

To obtain reliable information that will help the researcher to ensure the effectiveness of the study in question, data were collected from only secondary sources. This data were obtained from the annual reports and audited accounts of the banks under assessment

Model Specification

The data required were those of the dependent variable that include: Altman prediction model (working capital, retained earnings, earnings before interest and tax, equity as well as total assets and total book debts) and independent variables: risk management and board of directors. This was obtaining from the audited reports and accounts of the banks under assessment.

The study will use Altman Model given as Zeta "Z"

$$Z=1.2X_1 + 1.4X_2+ 3.3X_3 + 0.6X_4 + 1.0 X_5,$$

Where:

- X_1 = Working capital to total assets
- X_2 = Retained earnings to total assets
- X_3 = Earnings before interest and taxes to total asset
- X_4 = Value of equity to total book debt
- X_5 = Gross earnings to total assets

The decision rule is that:

- (i). For $Z < 1.81$ Bankruptcy region

- (ii). For $1.81 < Z < 2.675$ High bankruptcy potential
- (iii). For $2.675 < Z < 2.99$ Low bankruptcy potential
- (iv). For $Z > 2.99$ Strong (No sign of bankruptcy at all).

The Altman Model will be modified thus to incorporate corporate governance:

$$ATMN_{it} = a_0 + \beta_1 RMC_{it} + \beta_2 BIND_{it} + it_{urt} \dots\dots\dots(i)$$

Where;

ATMN= Altman Prediction Model

RMC= Risk Management Committee

BIND = Board independence

Method of Data Analysis

Data were analyzed with descriptive statistics, and the hypotheses will be tested with Pearson correlation, and multiple regression analysis. Since the focus of the study is to examine the effect of asset composition on financial performance, regression analysis becomes appropriate tool for it.

Descriptive statistics employed to summarily describe the mean, median, standard deviation, kurtosis and skewness of the study variables. Inferential statistics will also be utilized with the aid of E-Views 9 using:

- i. Coefficient of correlation: which is a good measure of relationship between two variables that tell us about the strength of relationship and the direction of the relationship as well?
- ii. Regressions analysis: Regression analysis predicts the value the dependent variable based on the value of the independent variable and explains the impact or effect of changes in the values of the variables.

Decision Rule

Accept the alternative hypothesis, if the Probability value (P-value) of the test is less than 0.05 (5%). Otherwise reject

Data Analysis and Results

Data Analysis

Table 1: Descriptive Analysis

	ATMN	RMC	BIND
Mean	2.913370	14.29207	1.826087
Median	3.023000	11.30000	2.000000
Maximum	6.598000	38.66000	7.000000
Minimum	0.399000	0.060000	0.000000
Std. Dev.	1.547708	12.27464	1.813313
Skewness	0.121996	0.613932	1.183425
Kurtosis	2.306899	2.328440	4.323895
Jarque-Bera	2.069699	7.508123	28.19293
Probability	0.355280	0.023422	0.000001

Sum	268.0300	1314.870	168.0000
Sum Sq. Dev.	217.9815	13710.67	299.2174
Observations	96	96	96

Table 1 shows the mean (average) for each of the variables, their maximum values, minimum values, standard deviation and Jarque-Bera (JB) Statistics (normality test). The results in table 1 provided some insight into the nature of the Nigerian banks that were used in this study.

It was observed that on the average over the twelve (12) years periods (2012-2023), the sampled banks in Nigeria were characterized by positive Altman bankruptcy prediction Model (2.770944), also, the large difference between the maximum and minimum value of the risk management committee (RMC) and board independence (BIND).

In this table, the Jarque-Bera (JB) which test for normality or the existence of outliers or extreme values among the variables shows that most of the variables are normally distributed at 5% level of significance. This means that any variable with outlier are not likely to distort our conclusion and are therefore reliable for drawing generalization. This also implies that the least square estimate can be used to estimate the pooled regression model.

Correlation Analysis

In examining the association among the variables, we employed the Pearson correlation coefficient (correlation matrix) and the results are presented in table 2:

Table 2: Correlation Matrix Analysis

	ATMN	RMC	BIND
ATMN	1		
RMC	0.21505	1	
BIND	0.24597	0.30658	1

The use of correlation matrix in most regression analysis is to check for multi-collinearity and to explore the association between each explanatory variable (RMC and BIND and the dependent variable (Altman). Finding from the correlation matrix table shows that all our independent variables, (RMC=0.215, BIND= 0.246) were observed to be positively associated with Altman bankruptcy prediction Model In checking for multi-collinearity, we notice that no two explanatory variables were perfectly correlated. This means that there is no problem of multi-collinearity between the explanatory variables. Multi-collinearity may result to wrong signs or implausible magnitudes in the estimated model coefficients, and the bias of the standard errors of the coefficients.

Test of Hypotheses

Hypotheses One

H_{01} : Risk management committee has no significant effect on bankruptcy risk deposit money banks in Nigeria.

Table 3: Regression analysis between Altman predicting model and Risk management committee

Dependent Variable: ATMN

Method: Least Squares

Date: 12/21/24 Time: 11:56

Sample: 1 103

Included observations: 96

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.520241	0.257072	9.803644	0.0000
RMC	0.021909	0.013586	1.612562	0.1103
R-squared	0.027488	Mean dependent var		2.837883
Adjusted R-squared	0.016917	S.D. dependent var		1.615218
S.E. of regression	1.601498	Akaike info criterion		3.800803
Sum squared resid	235.9612	Schwarz criterion		3.854915
Log likelihood	-176.6377	Hannan-Quinn criter.		3.822660
F-statistic	2.600357	Durbin-Watson stat		0.573375
Prob(F-statistic)	0.110265			

In table 3, a simple least square regression analysis was conducted to test the significant effect between risk management committee (RMC) and Altman bankruptcy predicting model (ATMN). The R-squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the table 3, the value of R squared was 0.027, an indication that there was variation of 3% on ATMN due to changes in RMC. This implies that only 3% changes in ATMN of the economy could be accounted for by RMC, while 97% was explained by unknown variables that were not included in the model. The probability of the slope coefficients indicates that; $P(0.110 > 0.05)$. The co-efficient value of $\beta_1 = -33.92274$ implies that RMC is positively related to ATMN, and this is not statistically significant at 5%.

The Durbin-Watson Statistic of 0.573375 which is less than 2 suggests that the model does not contain serial correlation. The F-statistic of the ATMN regression is equal to 2.600357 and the associated probability F-statistic is equal to 0.008726, so the null hypothesis was rejected and the alternative hypothesis was accepted.

Decision

Since the Prob (F-statistic) of 0.110265 is less than the critical value of 5% (0.05), then, it would be upheld that risk management committee has significant effect on bankruptcy risk deposit money banks in Nigeria, thus, H_1 is preferred over H_0 .

Hypothesis Two

H_{05} : Board of directors' independence has no significant effect on bankruptcy risk deposit money banks in Nigeria.

Table 4: Regression analysis between Altman predicting model and Board of directors' independence

Dependent Variable: CAL_Z_VALUE

Method: Least Squares

Date: 12/21/24 Time: 11:58

Sample: 1 103

Included observations: 96

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.493799	0.234081	10.65359	0.0000
BIND	2.166370	0.089006	2.869208	0.0547
R-squared	0.035838	Mean dependent var		2.809208
Adjusted R-squared	0.025580	S.D. dependent var		1.610316
S.E. of regression	1.589586	Akaike info criterion		3.785438
Sum squared resid	237.5178	Schwarz criterion		3.838862
Log likelihood	-179.7010	Hannan-Quinn criter.		3.807033
F-statistic	3.493940	Durbin-Watson stat		0.595410
Prob(F-statistic)	0.054707			

In table 4, a simple least square regression analysis was conducted to test the significant effect between Board of directors' independence (BIND) and Altman bankruptcy predicting model (ATMN). The R-squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the table 4, the value of R squared was 0.04, an indication that there was variation of 4% on ATMN due to changes in BIND. This implies that only 4% changes in ATMN of the economy could be accounted for by BIND, while 96% was explained by unknown variables that were not included in the model. The probability of the slope coefficients indicates that; $P(0.05 < 0.05)$. The co-efficient value of; $\beta_1 = 2.166370$ implies that BIND is positively related to ATMN, and this is not statistically significant at 5%.

The Durbin-Watson Statistic of 0.595410 which is less than 2 suggests that the model does not contain serial correlation. The F-statistic of the ATMN regression is equal to 3.493940 and the associated probability F-statistic is equal to 0.054707, so the null hypothesis was rejected and the alternative hypothesis was accepted.

Decision

Since the Prob (F-statistic) of 0.054707 is equal to critical value of 5% (0.05), then, it would be upheld that board of directors' independence has a significant effect on bankruptcy risk deposit money banks in Nigeria, thus, H_1 is preferred over H_0 .

Discussion and Conclusion

This study determined the effect of corporate governance on bankruptcy risk in commercial banks in Nigeria, using risk management committee, and board of directors' independence. The study used Altman's original model for public companies to extract data and the formulated hypotheses were tested with regression analysis with aid of E-View 9.0. The data required were those of the dependent variable that include: Altman prediction model (working capital, retained earnings, earnings before interest and tax, equity as well as total assets and total book debts) and independent variables: board size, audit tenure and board independence. This was obtaining from the audited reports and accounts of the banks under assessment. From the results, it was revealed that only board of directors' independence has a statistically significant effect on bankruptcy risk commercial banks in Nigeria, this result is in agreement with Elshandidy (2013) argued that having a good number of independent directors on the board would foster greater financial stability of the company.

However, risk management committee has no statistically significant effect on bankruptcy risk commercial banks in Nigeria. These results are in line with the study of Boo and Sharma (2008) observe no association between audit committee independence and audit fees indicating that auditors will minimize their effort in the presence of independent audit committee. Jensen and Meckling (1976) argued that the relationship between managerial share ownership and corporate debt is complex. It is argued that managerial share ownership can reduce managerial incentives to consume perquisites, expropriate wealth and to engage in other non-maximizing behavior.

Based on the results, the study recommended the followings;

1. Risk management committee should be encouraged, since the committee can influence the capacity for problem-solving as the variety of perspectives that identifying the weakness of internal control and risk source that can easily use in checkmating bankruptcy.
2. There is need to strengthen the board of director's independency, so as to ensure board are more effective at preventing and avoiding bankruptcy once the company becomes distressed.

REFERENCES

Altman, E. I. (1994). Corporate distress diagnoses: Comparisons using linear discriminant analysis and neural networks (the Italian experience). *Journal of Banking and Finance*, 18, 505–529.

Altman, E. I. (2000). Predicting financial distress of companies: Revisiting the Z-score model.

Retrieved from <http://www.zscore.pdf>

Altman, E. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *The Journal of Finance*, 23(3), 589–609.

Ayoola, T. J., & Obokoh, L. O. (2018). Corporate governance and financial distress in the banking industry: Nigerian experience. *Journal of Economics and Behavioral Studies*, 10(1), 182–193. <https://doi.org/2220-6140>

Ahmad, A., & Masoumeh, S. (2016). Earnings management and the effect of earnings quality in relation to bankruptcy level (firms listed at the Tehran Stock Exchange). *International Journal of Finance*, 9(4), 159-171.

Adeusi, S., Akeke, N., Aribaba, F., & Adebisi, O. (2017). CG and firm FP: Do ownership and board size matter? *Academic Journal of Interdisciplinary Studies*, 2(3), 251–258.

Aleksanyan, L., & Jean-Pierre, H. (2016). Economic and financial determinants of firm bankruptcy: Evidence from the French food industry. *Review of Agricultural, Food and Environmental Studies*, 97, 89–108.

Altman, E., Iwanicz-Drozowska, M., Erkki, L., & Arto, S. (2017). Financial distress prediction in an international context: A review and empirical analysis of Altman's Z-score model. *Journal of International Financial Management & Accounting*, 28, 131–171.

Bravo-Urquiza, F., & Moreno-Ureba, E. (2021). Does compliance with corporate governance codes help to mitigate financial distress? *Research in International Business and Finance*, 55, 101344. <https://doi.org/10.1016/J.RIBAF.2020.101344>

Balogun, J. E., Agbi, S. E., Yahaya, O. A., & Joshua, S. G. (2023). Institutional ownership and firm value of listed manufacturing companies in Nigeria: The moderating role of dividend payout. *Nigerian Journal of Accounting and Finance*, 15(1), 85–111.

Bratten, B., Gaynor, L. M., McDaniel, L., Montague, N. R., & Sierra, G. E. (2013). The audit of fair values and other estimates: The effects of underlying environmental, task, and auditor-specific factors. *Auditing: A Journal of Practice & Theory*, 32(sp1), 7–44.

American Research Journal of Economics, Finance and Management

Volume 13 Issue 1, January-March 2025

ISSN: 2836-9416

Impact Factor: 6.41

Journal Homepage: <https://americaserial.com/Journals/index.php/ARJEFM>,

Email: contact@americaserial.com

Official Journal of America Serial Publication

- Cenciarelli, V., Greco, G., & Allegrini, M. (2018). External audit and bankruptcy prediction. *Journal of Management and Governance*, 22, 863–890. <https://doi.org/10.1007/s10997-018-9406-z>
- Diakomihalis, M. (2012). The accuracy of Altman's models in predicting hotel bankruptcy. *International Journal of Accounting and Financial Reporting*, 2, 96–113.
- Darrat, A. F., Gray, S., Park, J. C., & Wu, Y. (2014). Corporate governance and bankruptcy risk. *Journal of Accounting, Auditing & Finance*, 31(1), 163–202.
- Ezejiofor, R. A., Nzewi, U. C., & Okoye, P. V. C. (2014). A corporate bankruptcy: An application of Altman's model in predicting potential failure in the Nigerian banking sector. *International Journal of Empirical Finance*, 2(4), 152–171.
- Ehiedu, V. C. (2022). External debt (ED) and growth nexus (GN) in Nigeria. *International Journal of Academic Management Science Research (IJAMSR)*, 6(7), 58–68.
- Ehiedu, V. C. (2014). The impact of liquidity on profitability of some selected companies: The financial statement analysis (FSA) approach. *Research Journal of Finance and Accounting*, 5(5), 81–90.
- Fich, E. M., & Slezak, S. L. (2008). Can corporate governance save distressed firms from bankruptcy? An empirical analysis. *Review of Quantitative Finance and Accounting*, 30(2), 225–251.
- Guo, J., Huang, P., Zhang, Y., & Zhou, N. (2016). The effect of employee treatment policies on internal control weaknesses and financial restatements. *The Accounting Review*, 9(4), 1167–1194.
- Husson-Traore, A.-C. (2009). More effective corporate governance. *Organisation for Economic Cooperation and Development. The OECD Observer*, 50.
- Ighoroje, J. E., & Egedi, H. (2015). An evaluation of the roles of financial institutions in the development of Nigeria's economy. *Global Journal of Interdisciplinary Social Sciences*, 4(4), 1–4.
- Kajola, S. (2018). CG and firm performance: The case of Nigerian listed firms. *European Journal of Economic, Finance and Administrative Sciences*, 14, 16–28.
- Kumar, N., & Singh, J. P. (2013). Global financial crisis: Corporate governance failures and lessons. *Journal of Finance, Accounting and Management*, 4(1), 21.

- Li, Z., Crook, J., Andreeva, G., & Tang, Y. (2021). Predicting the risk of financial distress using corporate governance measures. *Pacific-Basin Finance Journal*, 68, 101334. <https://doi.org/10.1016/j.pacfin.2020.101334>
- Mehran, H., Morrison, A. D., & Shapiro, J. D. (2011). Corporate governance and banks: What have we learned from the financial crisis? FRB of New York Staff Report, 502. <http://dx.doi.org/10.2139/ssrn.1880009>
- Manzaneque, M., Priego, A. M., & Merino, E. (2016). Corporate governance effect on financial distress likelihood: Evidence from Spain. *Revista de Contabilidad*, 19(1), 111–121. <https://doi.org/10.1016/j.rcsar.2015.04.001>
- Miglani, S., Ahmed, K., & Henry, D. (2015). Voluntary corporate governance structure and financial distress: Evidence from Australia. *Journal of Contemporary Accounting & Economics*, 11(1), 18–30. <https://doi.org/10.1016/j.jcae.2014.12.005>
- Mohammad, I., Aly, S., Dixon, R., & Startling, R. (2014). Corporate governance and corporate social responsibility disclosure: Evidence from the US banking sector. *Journal of Business Ethics*, 125(4), 601–615.
- Mwawughanga, C. W., & Ochiri, G. (2017). Application of Edward Altman's Z-score model on measuring financial health of commercial banks in Kenya. *Journal of Management*, 4(2), 41–722. Retrieved from www.strategicjournals.com
- Mohammed, M. U., & Onipe, A. Y. (2023). Board of directors and bankruptcy risk using GMM approach. *Applied Finance and Accounting*, 9(1), 1–13. <https://doi.org/10.24818/afa.2023.9.1>
- Nurunnabi, M. (2020). Corporate governance in emerging economies will have to change. LSE Covid Blog. Retrieved from <https://blogs.lse.ac.uk/covid19>
- Okoye, N. J., & Okoye, P. V. C. (2022). Effect of corporate governance on bankruptcy risk of deposit money banks in Nigeria. *Research Journal of Management Practice*, 2(12). ISSN: 2782-7674. Retrieved from www.ijaar.org/rjimp
- Pandey, I. M. (2018). *Financial management* (12th ed.). Vikas Publishing House.

American Research Journal of Economics, Finance and Management

Volume 13 Issue 1, January-March 2025

ISSN: 2836-9416

Impact Factor: 6.41

Journal Homepage: <https://americaserial.com/Journals/index.php/ARJEFM>,

Email: contact@americaserial.com

Official Journal of America Serial Publication

Ryu, K., & Soocheong, J. (2004). Performance measurements through cash flow ratios and traditional ratios: A comparison of commercial and casino hotel companies. *Journal of Hospitality Financial Management*, 12, 15–25.

Stevenson, H. (1998). *Do lunch or be lunch*. Harvard Business School Press.

Scapens, R. W. (2006). Understanding management accounting practices: A personal journey. *British Accounting Review*, 38, 1–30.

Tricker, B., & Tricker, R. I. (2015). *Corporate governance: Principles, policies, and practices*. Oxford University Press.

Wurim, B. P. (2013). Discriminant analysis and the prediction of corporate bankruptcy in the banking sector of Nigeria. *International Journal of Finance and Accounting*, 2(6), 319–325.

<https://doi.org/10.5923/j>