

RISK MANAGEMENT ON CORPORATE PERFORMANCE IN THE NIGERIAN BANKING SECTOR

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Abstract

This study examined the effect of risk management on bank performance in Nigeria. Two bank performance indicators (return on assets and return on equity) were used as the dependent variables while unsystematic risk management measures including credit risk, liquidity risk, operational risk and capital adequacy risk are the independent variables. The data for the study covering 23 years from 1994 to 2016 were obtained from NDIC annual reports. The SPSS was used to run OLS regression analysis. Results of VIF and Durbin Watson statistics for multicollinearity and autocorrelation respectively confirmed the suitability of the models and reliability of the results. Coefficient of determination showed that risk management variables explained 41% and 23% of changes in return on equity and return on assets respectively. Furthermore, credit risk has a significant negative effect on return on equity and insignificant negative effect on return on assets; Liquidity Management has no significant effect on bank performance; Operational risk has no significant effect on bank performance in Nigeria; while capital adequacy has a significant positive effect on return on equity but a negative insignificant effect on return on assets. The study concluded that there is a poor risk management practice in Nigerian banks. Among others, it recommended that the CBN and other regulators should endeavor to enforce risk identification, assessment, measurement and control mechanisms in line with global best practices in order to avoid financial crisis and also improve on commercial banks' performance.

Key Words: Risk, management, corporate, Banking, performance and, Nigeria

Introduction

Generally, the financial system is adjudged the life wire of every economy. For this reason, the health of the financial system requires attention (Das & Ghosh, 2007) as its failure can disrupt economic development of the country. The banking system provides financial services, including issuing money in various forms, receiving deposits of money, lending money, processing transactions and the creating of credit (Campbell, 2007). All these activities of the banks have an intrinsic risk in themselves. This makes the banking sector a very risky industry. The risks in the banking sector cannot be eliminated or avoided (Soyemi, Ogunleye & Ashogbon, 2014). They can only be managed to control the degree and direction of their impact on

bank performance. Risk management is the identification, assessment and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events (Njogo, 2012). A study by Agwu, Iyoha, Ikpefan & Okpara (2015) identified five kinds of risk challenges to the Nigerian banking system as credit, liquidity, operational, foreign exchange and interest rate risks. These risks can be grouped under systematic and unsystematic risks. The unsystematic risks are the credit, operational and liquidity risks, which result from internal operations and management decisions of the banks, whereas the systematic risks

which are foreign exchange and interest rate risks are imposed on banks by external forces like the Central Bank of Nigeria, Policy and Foreign Exchange Market operations. All these risks affect bank performance in Nigeria. In Nigeria, a new face of banking risk management techniques emerged in early 1990's. The new strategy posits that effective risk management starts with first identifying the different types of risk and defining them before attempts to manage them are made (Abiola, & Olausi, 2014).

Despite the series of reforms that have been going on since 1999 to improve the capacity and health of Nigerian banks, the major test of risk management efforts of banks in Nigeria was the assessment of the risk asset quality of banks which led to the removal of eight chief executive officers and the injection of N600 billion into the banks (BGL 2010 Banking Report) in order to get the banks to lend again (Adeusi, Akeke, Adebisi & Oladunjoye, 2014). Even after this exercise, the Nigerian banking sector still wallows in risk problems with high rate of non-performing loans, low liquidity rate and prevalent operational risks in form of forgeries and fraudulent acts (Abdullahi, 2013). Risk is inherent in every business organization or activity. The risk in the banking sector is more threatening and as such risk management is of grave importance to the sector. In Nigeria like some developing economies where consumer confidence index is low, banking business is riskier than normal (Alajekwu, Okoro, Obialor & Ibenta). Banks have to battle with credit defaults, liquidity problems, balancing bank policy guidelines, regulatory issues and bank operations, as well as keeping pace with capital adequacy. Extant empirical studies have largely posited that risks have effects on bank performance

but grossly disagreed on the direction of such effects. Meaningful policies as well as managerial decisions may suitably emerge from these divergent findings. Akindele, 2012 and Ofosu-Hene & Amoh, 2016 who adopted all the risks in one study found a positive relationship between risk management and bank performance while the study by Oluasmi, Uwuigbe & Uwuigbe, 2015 found a negative significant effect. Other studies that concentrated on only credit risk such as Kayode, Obamuyi & Owoputi, 2015, Ogbulu & Eze, 2016, found that credit risk impacts on performance but did not indicate the direction, while Almekhalfi, Kargbo & Hu, 2016 noted that credit risk has an adverse effect on bank performance. The present study seeks to examine the effect of risk management on bank performance in Nigeria as well as ascertain the direction of the impact.

Conceptual Review

Risk is the measure of the level of uncertainty in an event or activity. It is the likelihood of a negative outcome. In finance, it can be defined as the probability that the actual return on investment will be different from the expected return. Taiwo, Ucheaga, Achugamonu, Adetiloye, Okoye and Agwu (2017) in their study opined that risk is the likelihood of losing the principal and or the amount of interests accrued on it either in part or whole. Risk can be managed with the aim to reduce its effect and or maximize benefits. The concept of risk management has to do with the identification, evaluation, and prioritization of risks as well as the harmonized and reasonable use of resources to minimize, supervise, and control the possibility and the effect of inappropriate incidences (Zidafamor, 2016). It covers the practice of identifying risks, evaluating their consequences, and coming up with the

decision on the best possible means to minimize it so as to optimize the benefits (Adenkule & Ishola, 2011). Ideally, a sound risk management practice involves the pursuance of order process whereby those risks with the highest loss and the highest likelihood of occurring are brought under control first, and those with lesser possibility of happening and lesser loss are controlled in descending order (Isa, 2014). He also noted that the process of risk management can be very challenging in practice because balancing between these probabilities can easily be mismanaged. However, it is only an ideal risk management procedure that can help to reduce spending as well as the adverse effects of risks. For the financial institutions, risk management allows them to isolate and stop the dangers to which they are exposed (Adenkule & Ishola, 2011). In a broad perspective, financial risk can be classified into systematic and unsystematic risk. Isa (2014) described the systematic risk as irrelevant risk since they are beyond the control of business managers working in the market. It is irrelevant from the point of view that it is practically difficult to shade businesses from systematic risk. The study posits that unsystematic risk is the relevant risk which a manager should border about because it is under the control of the investor to decide in which security to invest or not, and can be controlled or eliminated through diversification. This study hinges on the theories of Shiftability, Anticipated Income, and Liability Management.

Empirical Framework

Olusanmi, Uwuigbe and Uwuigbe (2015) examined the impact of effective risk management on banks' financial performance in Nigeria. The data set covered a sample of 14 banks listed on the floor of the Nigerian Stock Exchange over a period of

6years (2006-2012). The dependent variable was Return on Equity (ROE) while the explanatory variables included Nonperforming loan ratio, Capital Ratio, Loan to Total Deposit and Risk Disclosure. The results from Ordinary least square regression showed that there is a negative insignificant relationship between risk management proxies and bank's performance Ofosu-Hene and Amoh (2016) investigated the relationship between risk management and bank performance among the listed banks on Ghana Stock Exchange over the period 2007– 2014. The performance of banks was measured using ROA and ROE while the explanatory variables included risk index, size of bank, bank solvency, bank liquidity, non-performing loans, inflation, and exchange rate. The regression result showed that risk management is positively related to performance.

Angote, Malenya and Musiega (2015) examined the effect of Enterprise Financial Risk Management on performance in Kenya commercial banks. A sample of 384 employees of 30 branches of KCB in Western Region, Kenya was involved in the study that employed performance as the dependent variable while financial leverage, diversification of products and credit policy were the independent variables. The data were obtained from a structured questionnaire design. The results obtained from mean, frequency and multiple regression analyses showed that there is a significant positive relationship between enterprise financial risk management and performance.

Adeusi, Akeke, Adebisi and Oladunjoye (2014) carried out a study to examine the effect of association of the risk management practices on bank financial performance in

Nigeria. The study employed a panel of ten commercial banks for a period of four years covering 2006 to 2009. Using two variables of financial performance, return on assets and return on equity to develop two models with liquidity, credit and capital risks, the regression result showed that there is a significant relationship between bank performance and risk management. Soyemi, Ogunleye and Ashogbon (2014) investigated the effect of risk management practices on financial performance of banks in Nigeria. A cross-sectional model of eight quoted commercial banks was collected in 2012 for the study. The variables of risk management employed are Non-Performing Loan Ratio, Liquidity Ratio, Cost to Income Ratio, Capital Adequacy Ratio while two dependent variables used to form two models for the study were Return on Assets (ROA) and Return on Equity (ROE). The OLS regression result showed that financial performance is greatly determined by risk management practices.

Oluwafemi and Obawale (2010), studied the effect of risk management on financial performance of commercial banks in Nigeria. The data set was a panel of annual observations from ten (10) Nigerian banks covering a time series of four years from 2006 to 2009. The financial performance of the banks was represented by profitability ratios using ROA and ROE, whereas the independent variables were liquidity, credit and capital risks. The regression analysis revealed that there is a significant relationship between bank performance and risks administration.

Muteti (2014) carried out a study on the relationship between financial risk administration and financial performance among Kenyan banks. The data set were obtained from 43 commercial banks in Kenya

as at December 2013. A multiple regression model was employed wherein the financial performance was measured by the ratio ROA while the independent variables were credit risk of the bank, interest rate of the banks, foreign exchange risk, liquidity risk of the bank, capital management, bank deposits and bank size. The study revealed that all the explanatory variables employed in the study have significant effect on the financial performance of Kenyan banks. Wanjohi (2013) carried out a study on the financial risk management on financial performance of Kenyan commercial banks. The study employed five components of risk management including the Risk Management Environment of the institution, Risk Measurement skills, Risk Mitigation procedures, Risk Monitoring and Adequate Internal controls of the organization as the independent variables. The dependent variable was the mean of ROA for a period of five years covering 2008 to 2012. The study found that financial risk management strongly affected the financial performance of Kenyan Commercial banks.

Theoretical Framework

This study adopts two particular theories to support its validity. The theories consulted for the purpose of this study therefore are discussed below thus;

The Shiftability theory, propounded by H. G. Moulton, argues that risk can be managed by obtaining liquidity converting assets to shift open market securities. When a bank that maintains a substantial amount of assets is in dire need of ready money, this theory supports the shifting of such assets to a more liquid bank. In line with this proposition, banks do accept shares and debentures of viable companies as liquid assets thus encouraging term lending. The Anticipated Income Theory, propounded by

H. V. Prochanow in 1944 posits that cash flow of the borrower is enough to hedge against risks from default. A bank's loan portfolio is thus considered as a source of liquidity. The loan is repaid in installments out of the anticipated earnings of the borrower instead of a lump sum at maturity. This theory satisfies the three main objectives of sound banking operation namely, liquidity, safety and profitability. The loan is repaid in regular installments ensuring liquidity. The ability of the borrower to repay guarantees safety and the regular cash inflow enables the bank to grant more loans thus ensuring profitability.

The Liability Management Theory developed in the 1960s claims that maintaining adequate liquidity for withdrawal by depositors enhances customer confidence and continued borrowing and hence bank profitability. A bank can create additional liabilities against itself by acquiring reserves from different sources. Issuing of certificates of deposits, borrowing from other commercial banks and central bank, issuing of shares and debentures as well as ploughing back of profits are the different sources available to the bank. This theory thus encourages banks to consider both sides of the balance sheet as sources of liquidity. The chain of these theories implies that effective risk management strategy can enhance bank profitability. The management of bank risks reduces the level of bank and customer defaults. The bank that lacks liquid assets can default in honouring financial obligations that fall due, likewise the customer that did not fund his/her account. Thus shiftability of assets, consistent cash flow in customer accounts, and meeting customer withdrawals are essential for effective risk management. Hence these theories have a link with the issue in the

study: risk management strategy and bank performance nexus.

Methodology

The study adopted the ex-post facto research design. The study involved the use of secondary data obtained from NDIC Annual Reports and Accounts for the period 1994 to 2016 from various issues. The data collected include Return on Asset (ROA), Return on Equity (ROE), Non-Performing Loan to total loan (NPL), Average Liquidity Ratio (ALR), Operational Risk (OR), Capital Adequacy Ratio (CAR). The dependent variable for the study is a measure of firm profitability using ROA and ROE. The model for the study was adapted from the works of Adeusi et al (2014), and Oluwafemi & Obawale, (2010). These studies used only the variables of credit risk, liquidity risk, and capital risk and the model is as follows: Bank Performance = f(Credit Risk, Liquidity Risk, Capital Risk) The present study modified the independent variables of this model by adding the operational risk of the banks. Thus the functional relationship in the model of the present study is: Bank Performance = f(Credit Risk, Liquidity Risk, Operational Risk, Capital Risk), where bank performance is represented by return on assets and return on equity, and risk management variables are represented by credit risk, liquidity risk, operational risk and capital risk. The equations of the relationship are: $ROA = \alpha_0 + \beta_1 NPL + \beta_2 ALR + \beta_3 OPR + \beta_4 CAR + \mu$ $ROE = \alpha_0 + \beta_1 NPL + \beta_2 ALR + \beta_3 OPR + \beta_4 CAR + \epsilon$ Where: NPL = Ratio of Non-Performing Loans to Total Loans (%) as a proxy for Credit Risk. ALR = Average liquidity ratio as a proxy for Liquidity Risk. OPR = Operational Risk - Proportion of Expected Loss to Amount Involved (%), that is, amount lost to bank frauds and forgeries. CAR = Capital to Total

Risk Weighted Asset Ratio (%) as a proxy for Capital Risk.

Table 1: Multicollinearity

| Variables | Model 1 (ROE) | | Model 2 (ROA) | | Remark |
|-----------|---------------|-------|---------------|-------|----------------------|
| | Tolerance | VIF | Tolerance | VIF | |
| ALR | .427 | 2.343 | .427 | 2.343 | No multicollinearity |
| NPL | .370 | 2.701 | .370 | 2.701 | No multicollinearity |
| CAR | .600 | 1.666 | .600 | 1.666 | No multicollinearity |
| OPR | .924 | 1.082 | .924 | 1.082 | No multicollinearity |

Table 2: Regression Results

| Variables | Model 1 (ROE) | | Model 2 (ROA) | |
|----------------------|---------------|----------------|---------------|----------------|
| | Coefficient | t-value | Coefficient | t-value (Prob) |
| Constant | 3.427 | 1.259 (0.224) | 104.261 | 2.096 (0.050) |
| NPL | -.153** | -3.257 (0.004) | -1.440 | 1.680 (0.110) |
| ALR | -.044 | -1.456 (0.163) | -1.039 | -1.890 (0.075) |
| OPR | -.001 | -.028 (0.978) | 0.369 | 0.514 (0.613) |
| CAR | .180* | 2.370 (0.029) | -0.289 | -0.209 (0.837) |
| | | | | |
| R-Squared | 0.412 | | 0.229 | |
| Adjusted R-Squared | 0.282 | | 0.058 | |
| F-Statistics (Prob.) | 3.159*(0.039) | | 1.338 (0.294) | |
| Durbin Watson | 1.938 | | 1.682 | |

*Significant at 5%, **Significant at 1%

Data Analysis and Results

Bank performance equation in table 2 above indicates that return on equity as bank performance received significant negative relationship from risk management variable credit risk, insignificant relation from liquidity and operational risks (significant). On the other hand, return on assets receives insignificant negative relation from credit and liquidity risks and insignificant positive relation from operational and capital adequacy risks.

The results of the study show that the risk management variables for credit risk, there is a negative and significant relationship between risk management and bank performance. This is contrary to the works of

Angote, Malenya & Musiega (2015) in Kenya which shows a positive significant relationship between risk management and bank performance. The result for liquidity risk revealed a negative and insignificant relationship between risk management and bank performance in Nigeria. This is in line with the appriori expectation but contrary to the study by Ofosu- Hene and Amoh (2016) which found that risk management and bank performance are positively related. Also the risk management variable, operational risk shows that risk management has no significant relationship with bank performance in Nigeria though performance indicator return on equity has negative

relationship while return on asset has positive relationship. This means that banking activities defy those risks that may lead to financial loss as a result of breakdown in day to day operational processes. Moreso, capital adequacy variable of risk management revealed a significant positive relationship with bank return on equity and a negative insignificant relation with return on asset. This is in tandem with the work of Mete (2005) that some banks take more risk than their capital could sustain.

Conclusion and Contribution to Knowledge

The R- Squared of the models are 0.41 and 0.23, showing that the risk management variables explained 41percent and 23 percent of the changes in return on equity and assets respectively. Since these values are less than 50 percent, it implies that risk management is not a veritable tool for enhancing bank performance in Nigeria. The results of F- statistics show F value 3.159(prob .039) for model 1, and 1.338 (prob 0.294) for model 2. This shows that risk management has significant relationship with return on equity but no significant relationship with return on assets of Nigerian banks.

Generally though, it was observed that there are poor and ineffective risk management practices in the Nigerian banking industry. Many Financial institutions have either collapsed and or are facing near collapse because of badly functioned subprime mortgage lending to firms and people with bad and unreliable credit. Banking crisis in Nigeria have shown that not only do banks often take excessive risks but the risks differ across banks. Financial risk management can decide the success or failure of banks.

Therefore, as seen from d results in this study, better management of risk management results in better financial performance of banks. Also, effective risk management in financial institutions generally, reduces systemic and economic damage.

Recommendations

Following from the above findings, the study recommends that the CBN and other regulatory bodies should endeavour to enforce risk identification, assessment, measurement and control strategies in line with best global practices in other to avoid financial crisis and also improve on commercial banks' performance in Nigeria.

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