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Modelling Risk Management in Banks: Examining Why Banks Fail?

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Abstract

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Msc, University of Lagos, 1990

Bsc, University of Lagos, 1982

Dissertation Submitted in Partial Fulfillment

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Abstract

The persistent bank failures in the Nigerian financial system have been a major concern of the government, depositors, shareholders, and the general public because of the important roles banks play in the economy. The aim of this research was to determine why there have been persistent bank failures in Nigeria and to investigate whether ineffective risk management in banks, coupled with poor corporate governance practices and nonadherence to regulations (independent variables), play a significant roles in the banks' performance(dependent variable). The variables were operationalized by taking VaR as the proxy for risk management, having CRO as proxy for ERM , CAR as proxy for corporate governance, and ROE as proxy for performance. The square gap model formed the theoretical basis of this study. The research design was survey design, and a survey instrument was used to collect data from the target population of 300 senior bank executives who were randomly selected from the 24 operating banks in Nigeria. A multiple regression model was used to examine if risk management, governance practices, and regulation adherence significantly predicted bank performance. The findings of the study confirmed that there is a significant positive relationship between the independent variables and the dependent variable. These findings suggest that, by adopting effective risk management, improving corporate governance practices, and adhering to regulations, Nigerian banks can improve their performance. This research has positive social implications for those in the banking industry by ensuring the safety of the depositors' funds in banks, and stabilizing the payment system in the economy, which historically would have been disrupted by systemic failure in the banking industry.

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Dedication

To my loving wife, Audrey Adaure Okehi, for her support, and our lovely children, Uchechi, Tochi, Ugochi, Daniel and David.

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Chapter 1: Introduction to the Study

Modelling risk management in Nigerian banks brings attention to the essence of banks paying adequate attention to the inherent risks in their operation and explains how these risks are identified, measured, analyzed, and controlled. Banks are also encouraged to have a risk management culture that uses the Bow-Tie Technique, where the relationship between the causes and consequences of business turmoil in banks are provided for and handled seamlessly by staff on a daily basis.

The aim of this research was to determine why there have been persistent bank failures in Nigeria and to investigate whether ineffective risk management, coupled with poor corporate governance practices and nonadherence to regulations, played significant roles in their failures. In synthesizing the relationships between the main constructs of the study, contemporary risk management techniques are suggested on how to manage the risks holistically in an enterprise risk management (ERM) environment to enable banks to allot their available capital for these risks to reduce banks losses.

Background of the Research

The past 3 decades saw huge losses in the banking industry, which is why the Basel Committee on Banking Supervision (BCBS) formulated broad supervisory and guidelines, recommendation and best practices on issues of risk management. In 1988, the Committee introduced a Capital Measurement System, commonly referred to as the Basel Capital Accord, with a credit standard of 8% administered to banks by end of 1992. Markowitz (1988), in a *codification in portfolio measurement,* established that most banks' losses were directly related to lax credit standards for borrowers and

counterparties, poor portfolio management, or lack of attention by directors and regulators.

The inherent risks that banks face in their operations could be grouped into five: credit risk, liquidity risk, solvency risk, market risk, and operational risk (Cade, 1999). According to Huang and Dosterlee (2010), credit risk is the risk of loss resulting from an obligor's inability to meet its obligation. It may arise from either an inability or an unwillingness to perform in the pre-committed contracted manner (Allen & Santamero, 1997). Credit risks are the largest source of risk facing banking institutions and for them to properly manage those risks means measuring them at the portfolio level to determine the amount of capital needed to hold as a cushion against extreme losses. This, in practice, is measured by value at risk (VaR).

In the literature review, I provided the scope of the other risk components in banking operations. The issues of corporate governance and risk management in banking operation are closely linked. A common factor in the past corporate failure has been lack of effective control over the banks by the board of directors and the absence of effective risk management. In Nigeria, the free banking era ended with the promulgation of the 1952 Banking Ordinance to help reduce incidence of bank failures. This notwithstanding, Nigeria still experienced a series of failures between 1952 and 1958. According to Uzoaga (1981), only four out of the indigenous 25 banks operating at the time, survived; the others collapsed. With the passing of the Central Bank of Nigeria (CBN) Act of 1958, the bank came into full swing by 1959 and the entire banking industry then came under the supervision of CBN. There was an improvement from then on banking operation in

Nigeria. Before 1988, the World Bank Team that reviewed the banking system in Nigeria pointed out first symptoms of distress in the Nigerian Financial System and recommended the establishment of Nigeria Deposit Insurance Corporation (NDIC), which took off in February 1989 (Ndiulor, 2000). According to Ndiulor (2000), the transfer of account of government agencies to the CBN, apparent investment mismatches, reported paper profits, fraudulent transactions in foreign exchange, among others, contributed in further weakening of the banks at that point.

Another round of bank failure in Nigeria occurred between 1994 and 2003: Within this period the CBN withdrew the licenses of many banks, which were later liquidated by NDIC. The 2004 Banking Sector Reforms caused the collapse of 14 additional banks (Adeyemi, 2011). Between 1989 and 1996 particularly, the Nigerian banking industry recorded very high distress when the identified number of distressed banks increased from eight to 52 out of the 84 banks operating at that point. Within this period, another round of banking crises was witnessed resulting from the political instability caused by the annulment of the 1993 presidential election by the military government. Following the political instability, in 1994 and 1995 was the revocation of the licenses of five banks. Also between 1995 and 1996, CBN took over the management of 17 distressed banks. Subsequently in 1986, CBN, acting under the Banks and Other Financial Institutions Act of 1991 (as amended), revoked the licenses of 26 banks effective January 16, 1998. The revocation was necessitated by the financial distress of those banks at that time.

The next stage of distress came in 2004/2005 when the CBN governor, in consolidating the banking sector, came up with an increase of minimum capital of banks

to 25billion Naira. This exercise brought down the number of banks then from 84 to 24. These banks operated in the banking sector up to 2008, when it was noticed that a lot of insider abuses were eroding the capital base of the banks. With the appointment of a new governor of CBN in 2008, the CBN, through a joint committee of CBN and NDIC, reviewed the operations and financial solvency of the banks, and nine of the 24 banks were found to be insolvent. The CBN's intervention to rescue the banks, as the provider of last resort, required CBN to provide a total sum of 620billion Naira (about U.S. $ 4.1 billion) to eight banks. This represented about 2.5% of the Nigeria's entire 2010 GDP of about $ 167 billion.

This banking revolution in 2009 was a confirmation that this endemic crisis that had ravaged the Nigerian financial sector over the years had yet to be decisively dealt with (Adeyemi, 2011). Thus, this current research was needed to determine the root causes of the persistent bank failures all over the world, using Nigeria as a model to investigate whether ineffective risk management in banks, coupled with poor corporate governance practices and nonadherence to regulations, played significant roles in the poor performance of banks leading to their failures. There could also be other factors such as political, economic, and operational that contributed to continuous distress in the Nigerian banking sector. In all, the causes could be traced to a lack of transparency and insider abuses, capital inadequacy, nonperforming loans (and other inherent banking risks), macroeconomic instability, critical gaps in regulatory, and supervisory framework, weaknesses in business environment, and ineffective market discipline (Sanusi, 2010)

The major gap in the knowledge of risk management discipline in the study was to help in bridging the relationship between risk management and the other three constructs of the study: corporate governance, regulation and bank performances. In past studies, these had been handled separately, thus isolating the impact of one from the others in banking operation. In synthesizing the relationships between these constructs, contemporary risk management techniques are suggested on how to (a) identify the inherent risks in banking operations, (b) measure them appropriately, and (c) analyze and control them holistically in an ERM environment to enable banks to allot their available capital to these risks to reduce the banks' losses.

This study is needed to help expose bank operators to the implications of not managing the inherent risks in their operation appropriately and to advance contemporary risk management techniques for adequate management of those risks in a holistic manner in order to guarantee the safety of banks. The root causes of banks failures are associated with ineffective risk management, nonadherence to regulation, and poor corporate governance culture in their operations. Although there could be other silent causes, for example, adverse economic, political and environmental situations, many of the major causes are linked to the ineffective risk management, nonadherence to regulation, and to poor corporate governance. In Nigeria, as a developing economy, the apparent gaps in prudential regulatory and supervisory frameworks compound the noticed weaknesses in the three main constructs of the study.

Problem Statement

A close look at bank failures prior to the world's financial crisis of 2008 and the post crisis period revealed that ineffective management of the inherent risks in banks was one of the root causes of their failures (Sanusi, 2013). Many banks in both developed and developing economies of the world suffered huge losses stemming from this (Ekpo, 2012). It was for this reason that Basel Committee on Bank Supervision (BCBS) formulated broad supervisory standards and guidelines, recommendations and best practices on issues of risk management in banking as captured in Basel I, II, &III from 2008 to 2013.

These bank failures are mainly caused by poor risk management and corporate governance issues (Nanab et al., 2012). Rosen and Zenios (2001) emphasized that corporate governance is vital for effective ERM, and only a few of the ERM components can be achieved without corporate governance compliance. Corporate governance and risk management are interrelated and interdependent (Quon, Zeghal, & Maingot, 2012). The stability and improvement of any bank's performance are highly dependent on the effective role of both components (Sabel & Reading, 2004; Manab et al; 2010).
The ERM usually creates the platform on which the suggested contemporary risk management techniques, such as the Bow-Tie method, operate to help banks achieve effective risk management in their operation. The ERM helps in evaluating and managing holistically all the risks in banking operation, while the Bow-Tie, as a structured approach to scenario analysis, would help to relate the causes of the risks in banking operation and to the control measures for the consequences. The ERM and the Bow-Tie

Technique, therefore, complement each other in achieving an effective risk management in banks. Their absence in banking operation would not give a bank the opportunity to appropriately identify the inherent risks, measure, and control them.

According to Adeyemi (2011), capital inadequacy, lack of transparency, and huge nonperforming loans are the major causes of bank failures in Nigeria. In addition to those three key factors, he empirically identified some other factors as silent contributors to the inherent failures of banks in Nigeria. These amongst others are ownership structure, weak/ineffective internal control system, and poor management.

According to Sanusi (2009), banks in Nigeria are currently facing major challenges about the level of risks they accept. An effective risk management culture would help them to develop a management system that provides a seamless focus on the risk appetite as one of the determinants of performance (Nanabet, et al., 2012). This is why the ERM is expected to be positively correlated with performance in banking operation. (Ekpo, 2013)

Purpose of the Study

The study had five objectives:

1. To determine why there have been persistent bank failures in the Nigerian banking industry.
2. To know whether ineffective management of the inherent risks associated with banking operation, coupled with poor corporate governance and nonadherence to regulations, were the root causes of banks' failures.

3. To evaluate the inherent risks in banking operation and to identify techniques, such as the Bow-Tie Technique, under the ERM environment that could help reduce bank losses and thus guarantee their survival.
4. To help in creating the required awareness in bank operators of the need to appropriately identify the inherent risks, put in place adequate measurement processes, evaluate and monitor them holistically, and to install proper controls by allotting capital properly to help create cushion against losses.
5. To determine the relationship between the main constructs of the study, that is, the relationship between risk management, corporate governance, regulation as the independent variables and bank performance as the dependent variable.

The study is quantitative, and is aimed at carrying out an empirical test of a theory called the square gap model (SGM). This model has the four variables as foundation and are key in establishing the relationship between the variables and how they contribute to bank performance.

In meeting the objectives of the study, a quantitative survey was carried out on the Nigerian banking industry to examine if ineffective management of the inherent risks in the banking industry, coupled with poor corporate governance and nonadherence to regulations were the root causes of persistent bank failures. Data on the fundamental constructs were obtained through survey instruments and analyzed through regression model using SPSS software to obtain results that would become the basis of the

recommendations on how best to manage the inherent risks in banking operation to avoid bank failures.

Research Questions

In an empirical research exercise of this nature, basic questions are usually asked in order to guide and direct the study. The research questions provided the direction of the research and what to expect at the end of it. Four research questions were developed and were used in formulating the hypothesis of the research.

1. What are the major factors accounting for the consistent bank failures in Nigeria?
2. What are the levels of contributions of ineffective risk management in banking operation, poor corporate governance and nonadherence to bank regulations as major factors accounting for the persistent bank failures in Nigeria?
3. What is the relationship between risk management, corporate governance, regulation, and bank performance in the management of banks?
4. What other silent factors-other than ineffective risk management, poor corporate governance and nonadherence to regulations—contribute to the persistent bank failures?

The above research questions can be explored through one hypothesis adopted for the study . It was the prediction made on the relationship between the four main variables of the study. Although in the research, I examined the causes of persistent bank failures, I specifically considered whether ineffective risk management, poor corporate governance,

and nonadherence to regulations were the major factors of the failures. With this in mind, the hypothesis focused on the relationship of the four main variables of the study—risk management, corporate governance, regulation, and bank performance—and to understand how they influenced bank failure or survival. The hypothesis also helped to give direction to the study.

H_0: There is no significant relationship between effective risk management, corporate governance, adherent to regulation, and bank performance in management of banks.

H_1: There is significant relationship between effective risk management, corporate governance, adherent to regulation, and bank performance in management of banks.

Embedded in this hypothesis were the four fundamental issues that needed clarification to the research questions. The first was to confirm whether ineffective risk management, poor corporate governance, and nonadherence to regulations were the major factors responsible for the persistent bank failures. The second was to learn whether there is a significant variation in the level of contribution to bank performance or failure by the three main variables: risk management, corporate governance and regulations. The third was to determine whether there were interrelationships between the main constructs. The fourth was to learn whether there were other silent factors responsible for the persistent bank failures.

Dependent variables: Return on equity (ROE)

Independence variables: = VAR, CAR, ERM, and NPM

Where:

VAR = value at risk = X_1

CAR = capital adequacy ratio = X_2

ERM = enterprise risk management = X_3

NPM = net profit margin = X_4

ROE = return on equity = Y

Y is a linear function of the above X_s

X predicts Y

Components of the Independent Variables:

- Capital adequacy ratio (CAR) is determined by capital ratio (CR), cash claim on central bank (CCC), loan to deposits ratio (LDR),loan loss provisioning (LLP), net profit margin (NPM), fixed asset and inventory (FAI), ownership structure (OWN).
- Value added ration (VAR) is determined by non-performing loan ratio (NPL) and business risk (BR) which will result to a minimum of 5 percent quarterly profit measure.
- Chief risk officer (CRO) is the proxy for enterprise risk management (ERM)

ERM is determined by Company size, Profitability, and Leverage

In the final analysis, the hypothesis will be tested through the following regression equation:

$$ROE = \beta_0 + \beta_1 VAR + \beta_2 NPM + \beta_3 CAR + \beta_4 CRO + \varepsilon \quad (1)$$

Note: :

CR = Capital Ratio

CCC = Cash Claim on Central Bank

SRR = Secondary Reserve Ratio

LDR = Loan to Deposits Ratio

LLP = Loan Loss Provisioning

NPM = Net Profit Margin

FAI = Fixed Asset and Inventory

OWN = Ownership Structure

CAR = Capital Adequacy Ratio

VAR = Value at Risk

NPL = Non-performing Loan Ratio

BR = Business Risk

ROE = Return on Equity

Operationalization of the Variables

I reviewed four main constructs: risk management, corporate governance, regulation, and bank performance. In addition to these main constructs, other relevant silent variables were equally considered, that is, ERM and macroeconomic variables. An appropriate risk management procedure that proactively covered all risk classes would contribute substantially to high performance of a bank in terms of ROE. ROE in this study was the dependent variable of the equation and the proxy variable for performance. Bringing the proxies of the other three main constructs into a regression equation gave the indicated equation.

The implication therefore was that changes in risk factors, risk management procedures, corporate governance, and adherence to regulation would determine or predict how profitable the bank was or the (ROE). Regulation as an external form of corporate governance could be represented by NPM as the introduction of a macro-prudential approach to banking regulation. For instance, it would definitely help banks take proactive measures in the management of risks associated with changes in

macroeconomic and monetary operations which, in turn, would impact the profitability of the bank.

The intention was to put the hypothesis in a multiple regression model to flow with the Square Gap Model theory, which confirmed that only banks that adhere strictly to banking regulations and good corporate governance rules adopting efficient risk management techniques would always survive and perform optimally. Here, this outcome is predicted by a linear combination of two or more predictor variables (risk factors, corporate governance and adherence to regulation).

The multiple regression model of the relationship between risk management, corporate governance, regulation and bank performance helped in evaluating the impact of these constructs on the survival or performance of a bank. The multiple regression model is formed on the basis of the perceived relationship between these constructs. This mathematical expression implies that any increase or positive effect on any of the independent variables will result to increase in bank performance. The implication of this is that the level of effective risk management in a bank, good corporate governance and adherence to regulation have effect on bank performance.

The correlation coefficient shows the nature and extent of the relationship between the major constructs and bank performance (having ROE as the proxy). The numerical value ranges from -1 to +1 *(-1 ≤ r ≤ + 1).* It was determined in this study as the square root of coefficient of multiple determinations (R – Square) in the regression output. In this case, -1 shows negative correlation or relationship while +1 shows perfect

positive correlation or relationship. The other degrees of correlation are explained based on how close or far away they are from the two extreme values.

In order to convert the respondents' responses to quantitative data, a code manual was developed from the code guide for them for ease of flow in the regression functions. Responses on bank performance constituted the dependent variable (i.e., ROE) while the responses on the other constructs (VaR as proxy for risk management, CAR as proxy for corporate governance, NPM as proxy for regulation and CRO as proxy for Enterprise Risk Management) constituted the independent variables. The two sets of constructs were expressed in functional relationships and multiple linear regression models whose parameters or coefficients were estimated, and evaluated in operation and testing the research hypothesis. The ordinary least square (OLS) technique was used in estimating the numerical values of model parameters and coefficients to obtain relevant statistics for further analysis and evaluation. SPSS was used as statistical software for the estimation.

Conceptual Framework of the Study

The conceptual framework was based on the Square Gap Model theory (SGM), which demonstrated the relationship between risk management, corporate governance, regulation, and bank performance as the main constructs in the study. The ERM concept and a new risk management technique, called Bow-Tie, with a scientific weighting method in managing the inherent risks in banks were incorporated into the framework of the SGM.

According to McConnell and Davies (2008), the Bow-Tie XP is a software tool that supports the Bow-Tie experience methodology, and this methodology helps banking

organizations to model their risks in a simple visual format that is shaped like a bow-tie. It is a simple graphical representation of the relationship between the causes and consequences of business upsets, the control measures in place and the tasks, procedures, responsible individuals and competencies which support and enforce the controls (McConnell & Davies, 2008, p.150).

The indication was that through regulations that strengthened risk management for better performance, and risk management through the Bow-Tie technique in the framework of ERM would influence performance in two ways: it can influence performance through corporate governance adherence. The model equally demonstrates that type of bank ownership and size of the bank can influence the performance of a bank as it can moderate the effect of risk management on both corporate governance and bank performance. The ERM framework provided the platform on which the Bow-Tie Technique flowed. Asian Risk Management Institute, (2007) empirically found that ownership, size, and leverage are positively correlated with ERM concept in banks.

The model helps to answer the research questions and the reason behind the study. However, there are four main reasons of the model relevant to answering the questions. First, the model shows that a dynamic ownership structure leads to effective risk management and second, to appropriate corporate governance practices. Third, there are gaps between corporate governance and risk management, risk management and regulations, risk management and bank performance and corporate governance and bank performance which the study would help to resolve. Fourth, the type of bank ownership exposes the differences in the level of gaps in these constructs. The gaps in these models

are defined at some inconsistent degrees of roles and interests amongst the parties which are synchronized by the SGM model. The gap naturally appears in bank operations due to the nature of banking operation and apparent agency problems. The two key assumptions of the model are that the bank owners are interested only in maximizing their wealth in terms of return on their investments and that business people are usually risk averse. Also, leverage and bank size are very important factors affecting the application of ERM in banks.

The purpose of the study was to bring to banks knowledge of the new techniques of risk management available to help in reducing losses. This will help in identifying the inherent risks, put in place adequate measurement processes, their evaluation and monitoring, and proper controls by allotting available capital properly to help in creating cushion against losses. I also considered the relationship between risk management, corporate governance and regulation in banking operations and how their effective use can enhance banks' performance. The study was equally important because it is expected to help in safeguarding the financial system from imminent collapse, which would impact on the society negatively.

The SGM would assist in determining why there have been persistent bank failures in the Nigerian banking industry and whether ineffective management of the inherent risks associated with their operations, coupled with poor corporate governance, were the root problems. The square in the model looks at the flow of the four main constructs in banking operation to know how they enhance or mar banks performance. The model presents a conceptual framework of relationships between risk management,

corporate governance, regulation and bank performance showing how corporate governance influences bank performance from two angles: directly and indirectly through efficient risk management. The model also confirms that type of bank ownership have moderating effects on the four constructs.

Determining the relationship between corporate governance and risk management is important in the SGM theory. The stakeholders in banks are not only interested in earning better returns on their investment, but are also concerned over how the bank's risk exposure is distributed to them. An efficient corporate governance operation in a bank would always aid risk management.

The main role of regulation in the model is to serve the public interest by controlling and monitoring the operations of banks in order to restrain potential exploitation by the management's behavior. Regulation, as an external corporate governance, controls managerial behavior in making decisions that are relevant to improving risk management. It determines the corporate governance that is adopted by banks and indirectly defines how risks are accepted and controlled by banks.

The essence of an ERM, adherence to regulation and good corporate governance would be to enhance bank performance. The main role of banks managers is to serve shareholders' interests by maximizing return on their investment. Apart from these managers' roles, managers as agents may have different interest from their principals (shareholders). This may happen when managers spend bank assets beyond the optimal size in order to increase incentives and compensation due to increasing size. Although managers may have less risk preference than shareholders expectation, managers' risk

preference behavior may be relevant to both the behavior of shareholders and the public whose expectations are contrary.

The SGM is sensitive to attaining the purpose of the study by accomplishing the hypothesis, which includes that banks that adhere to good corporate governance rules, manage the inherent risks in their operation well, and keep to set regulations would perform well and survive every economic situation.

Sampling Strategy

The stratified sampling method which is a probability sampling design was chosen as the main design and complemented by the quasi experimental design. It was used mainly to ensure that different groups of a population were represented adequately in the sample in order to increase the level of accuracy in estimating parameters. This will help reduce cost of executing the research since not all the expected areas of the population would be covered ordinarily. However, the scheme ordinarily divides the population area into groups showing the elements in each group to resemble the elements in the actual population as a whole (Hamsen, Hurwitz, & Madow, 1953).

In sampling, the sets of homogeneous groups should be related to the variables available in order that the samples are combined to constitute a sample of a more heterogeneous population, which increased the accuracy of the estimated population. The principle here is that the division of the population in sampling must be related to the variable used in the study. This is where the quasi experimental design comes in.

Originality of Research

The conceptual framework proposed in this study is centered on the SGM and is different from previous studies on the subject because it relates to bank performance. The emphasis here is on the urgent need for operators of banks to appreciate the importance of efficient risk management in their operation and for adequate attention to be paid to it in order to enhance their performance and guarantee their survival. This is so because the stability and improvement of bank's performance are highly dependent on the effective role of risk management and corporate governance components. (Manab et al., 2010). No previous researcher assessing the major factors of bank failures in Nigeria emphasized issues relating to risk management, which is the fundamental phenomenon of this study. Manab et al., (2010), in their study indicated that ERM implementation in financial firms is higher than in non-financial firms. The impacts of risk management in banks are tested empirically using the SGM theory, where the four main constructs (risk management, corporate governance regulation and Bank performance) forming the square in the theory are used as foundation. The study in addition to giving an in-depth view of risk management also reviews the root causes of incessant bank failures.

Research Contribution

The findings of the research would help improve the knowledge of bank operators and regulators in Nigeria about risk management and the contemporary techniques for measuring and controlling the risks inherent in their operation. The aim here was to enhancing the performance of banks and the regulation of the financial system generally. The empirical results would help fill the gap in managing the relationship between risk

management and the other three constructs in the study: corporate governance, regulation and bank performance so that bank operators would know how to leverage on the relationship between the constructs to enhance bank performance. This would help the other regulators, but particularly the Central Bank of Nigeria, in formulating policies to close the existing regulatory gaps in following up the operation of banks. I took a holistic review of the relationship between the constructs that most studies have treated separately in the past and how the inherent bank risks which often threaten their existence could be managed holistically through the ERM system.

Assumptions, Limitations, and Delimitations

It was assumed that the bankers targeted but randomly selected for this would be disposed to give information and complete the survey instruments. It was also assumed that the participants (a) would constitute the required units for the exercise defined in chapter three, (b) would have basic banking experience, and (c) knowledge to help execute all the plans of the study (especially in obtaining the required data).

The major limitation was the nonavailability of comprehensive data from banks in the UK and the United States, especially the secondary data that would have served as benchmarks compared to those data collected from banks operating in Nigeria. The efforts to obtain data from UK, United States, and from the Basel Committee on Banking Supervision might not be easy, and where possible would be very expensive. High cost of carrying out the research to the expected level was another limitation as data collection if to be obtained from all the expected top managers all over the country might be very costly and almost impossible within the time frame. The use of the Internet survey may

have posed some problems in data collection, especially with some areas in Nigeria that do not have regular power supply. This limitation was handled by providing hard copies of the survey instruments through the participants as an alternative to over 80% of the target population.

The major delimitation was confining the study to only Nigeria, a developing economy. Nevertheless, the banking system all over the world is similar; so also the root causes of bank failures. Still, in developing economies, the root causes might differ from country to country. There could also be significant variations in the causes of bank failures in developing countries and the developed countries of the world. The generalization of the result of this study may not be widely acceptable as bankers in the developed economies might cast aspersions on the outcome. Therefore, extending the data collection for the primary data to bankers in the UK and United State of America would help to give more validity to the outcome.

Significance of the Research

The importance of the study is to first draw the attention of management of banks in Nigeria, to the new risk management techniques, especially the Bow-Tie technique, which will help them, monitor the inherent risks in their operations, measure them appropriately, and allot available capital to help in creating a cushion against possible losses. The need for the banks to adopt the ERM structure and risk management culture in their operations were emphasized for Nigerian banks to participate in the world's banking standards. This was necessary to guarantee the survival of banks and their continued profitability.

In the case of operational risk management, the key component remains the measurement of the size and scope of the bank's risk exposures, called the matrix approach, where losses are categorized according to the type of event and the business line in which the event occurred. By this process, a bank can identify which event has the most impact across the entire bank and which business practices are most susceptible to operational risk. This is akin to the Bow-Tie technique and flows with the ERM platform. The Nigerian banks should see the need to manage the inherent risks in their operation holistically by adopting the ERM structure and incorporating the risk management culture into the corporate cultures of the banks.

The study would equally help in safeguarding the financial system from imminent collapse, which could be triggered by systemic risks resulting from persistent bank failures. The study is also important to the customers of banks, and all other stakeholders in the banking system, such as:

- Bank supervisors (central banks, Nigerian deposit insurance corporations)
- The entire Nigerian financial system
- Shareholders of banks
- Banks staff
- The society at large that would suffer in the event of a bank's failure.

Social Change Implications of the Study

The positive social change implications of the study are the creation of effective risk management process in Nigerian banks to avoid their incessant failures and to

guarantee the safety of depositors' funds in banks. Equally, to save the tax payers funds used in bailing out ailing banks by Central Banks.

The fundamental implication of the study was to bring to the attention of bank operators the new model of risk management and corporate governance that would guarantee the survival and profitability of the banks. This would in turn guarantee the safety of depositors' funds in banks and save the society of possible systemic failure in the Nigerian banking system especially the payment system which obviously would affect the society as a whole adversely. This stands as a major positive implication drive in the financial sector, as the safety of depositors funds by the avoidance of bank failures would help family stability and societal peace. Also the avoidance of bank failures would save the Tax-payers' funds used in bailing out illiquid but solvent banks through the Central Banks.

Through this research, I am introducing to the research world, a new theory called the square gap model SGM that illustrates the relationship between risk management, corporate governance, regulation and bank performance in the operations of banks. It also demonstrated the moderating effects of ownership structure in the four constructs and how the existing gaps in the separate studies of each of those four constructs can be filled through the type of ownership structure in the financial system.

The study would equally be useful to the Central Bank of Nigeria and the other supervisory agencies of banks in Nigeria providing additional guides for the supervision of banks and how to assess their performance. The survival of banks would definitely guaranty the payment system in the Nigerian financial system which is crucial in the

economic growth of the country. The depositors who put their funds in banks for the banks to invest in the economy need to be reassured that they will have back their capital and the expected interest yields. The study no doubt helps in safeguarding the financial system from imminent collapse which would negatively affect the society as a whole.

Summary

This chapter was the background of the study and why the persistent bank failures in the Nigerian financial system have been a major concern to the government, depositors, and the general public. The aim of this research was to determine why there have been persistent bank failures in Nigeria and to investigate whether ineffective risk management in banks, coupled with poor corporate governance practices and nonadherence to regulation, play significant roles in their performance failures. The Square Gap model was used in this study and it has risk management, corporate governance, regulation and bank performance as pillars and also as the main variables of the study. The first research question enquires whether ineffective risk management, poor corporate governance and nonadherence to regulations were the major factor of the persistent bank failures. The hypothesis is indicative that the interface between the independent variables affects bank performance as the dependent variable. The research methodology is a quantitative survey design using both primary and secondary data. ERM was recommended as an effective risk management process for banks to help in checking the incessant failures that would guarantee depositors' funds in banks.

Chapter 2 is a review of the literatures available on the subject of risk management in banking operations and closely reviewed researchers and authors views

and comments on them in guiding the current research exercise. Chapter 3 is an explanation of the methodology. Chapter 4 is a report of the results and Chapter 5 is the interpretation of the results.

Chapter 2: Literature Review

Introduction

The aim of this research was to determine the root causes of the persistent bank failures in Nigeria and to investigate whether ineffective risk management in banks coupled with poor corporate governance practices and nonadherence to regulations played significant roles in the poor performance of banks leading to their failures. The persistent bank failures, corporate scandals and frauds in Nigerian banks are among the reasons why banks should implement risk management programs. These bank failures are mainly caused by poor risk management and corporate governance issues (Nanab et al., 2012). Rosen and Zenios (2001) emphasized that corporate governance is vital for effective ERM and few of the ERM components can be achieved without corporate governance compliance. Corporate governance and risk management are interrelated and interdependent (Quon, Zeghal, & Maingot, 2012). The stability and improvement of any bank's performance are highly dependent on the effective role of both components (Manab et al; 2010; Sabel & Reading, 2004). According to Knight (2006), corporate governance can be defined as the method by which an organization is held together in pursuit of its objective while risk management provides the resilience. ERM is a management process that requires a firm's management to identify and assess the collective risks that affect value of the firm and apply an enterprise-wide strategy to manage those risks in order to establish an effective risk management strategy (Meulbroek, 2002). Maximization of shareholders value remains the critical goal of risk

management (Beasley et al., 2008; CAS, 2003; COSO, 2004; Hoyt & Liebenberg, 2011; Pagach & Warr, 2011;).

It has a positive impact on corporate value and performance (Gatzert and Martin; 2014). Enterprise risk management (ERM) has become increasingly relevant for managing corporate risks. In contrast to the traditional silo-based risk management, ERM looks at the bank's entire risk portfolio in an integrated and holistic manner. (Meulbroek, 2014). It constitutes a part of the overall business strategy of a bank and contributes effectively in protecting and enhancing shareholders values. (Meulbrock, 2011; Hoyt and Liebenberg, 2011). In view of a broader risk scope and higher risk complexity in banks, the adoption of ERM in banks operation becomes necessary.

Rating agencies, now incorporate companies' internal risk management systems in their rating processes (Hoyt and Liebenberg, 2011).

The internal factors are usually reduced to the objective of risk management, which enhance the shareholders value (Meulbroek, 2010). ERM is driven by advanced technology in a bank especially those methods that support risk quantification in banking operation (Jablonowski, 2012). In all, ERM system enables the board and senior management to monitor better the bank's risk portfolio as a whole. (Beaseley, Clune and Hermanson, 2010).

I searched basic terms and phrases that are related to the study such as: *risk management, enterprise risk management, Bow-tie techniques, Basel committee for banking supervision, bail out of banks, systemic risk, camel rating system, distress in banks, operational risk management, risk management structure, risk management*

system, and *internal capital adequacy assessment process*. I used management and banking data bases in identifying peer review articles that are relevant to this study such as:

- DDBA 8540 (Seminar in international finance)
- MHRM 6640 (The role of human resources in mergers and acquisitions)
- ACMG 6630 (Tax analysis and decision making)
- CRJS 6217 (Technological solutions and 21st century crime)
- G. Wei (Business and management research 2014)
- KS Tan (Annals of operations research)

The past 3 decades have witnessed huge losses in the banking industry that have resulted in the collapse of many banks, both in the developed and the developing economies of the world. This was why it became necessary for the BCBS to formulate broad supervisory standards and guidelines, recommendations and best practice on issues of risk management in banking. Basel II has three pillars; Pillar 1 looks at the new minimum capital requirement; Pillar 2 stipulates the qualitative standards on risk management, and Pillar 3 stipulates the expected disclosure information to enforce market discipline (BCBS, 2004). The essence of these rules is to be sure that banks are adequately capitalized to support their risk profile.

Nigeria, as a developing economy, the issues relating to strong prudential regulation and supervision, effective market discipline and strong leadership in the banks have been critical for the stability of the financial system. According to Ekpo (2012), sound leadership is critical for financial system stability; such leadership starts with good

corporate governance. Such governance entails having capable and experienced leaders or management, a coherent strategy and business plan and accountability. This situation requires operators in the financial system in Nigeria to operate in a transparent and efficient manner and adhere to regulations. Corporate governance obviously flows with effective risk management, which is dependent on a rigorous internal control and effective MIS.

The framework of the research demonstrated a conceptual model called the SGM which is tested in an empirical study determining the relationship between the four main constructs of the study: risk management, corporate governance, regulations and bank performance noting the influence of other compelling factors such as economic and political determinants on bank failures. The recommended concept of ERM and the adoption of the Bow-Tie Technique are linked to the SGM to demonstrate a holistic and contemporary approach to risk management in banks to guarantee their survival and optimal performance. The recent development is that risk management has moved from the narrow view that focuses on evaluation of risk from a narrow perspective to a holistic all-encompassing view (Tufano 1996; Liebenberg & Hoyt, 2003; Beasley et al., 2005; Pagach & Warr, 2011).

Definition of Key Concepts

Meaning of Risk

The dictionary definition of the word risk is a hazard, possibility of danger, injury or loss, chance of loss or chance of bad consequences or exposure to mischance. Many other people describe risk in so many other ways depending on their situation or

profession. Some say it is chance of mishap, unwanted and uncertain event, uncertainty of financial loss. The above descriptions have two things in common – uncertainty and loss. Combining the two features might give the temptation to describe risk as uncertainty of loss. This definitely would remove the probability of the risk not occurring or resulting to gain like in the case of speculative risk in business transactions.

With the foregoing in mind, risk could be defined scientifically as the probability or chance that an event may occur that has or might have adverse consequences or little chance of gain in certain instances. The gain aspect of risk may not be popular but the little degree of the chance resulting to gain in a business venture must be recognized. In general, it is important to indicate that risk would have no meaning without loss being the outcome of concern. Loss in question should be capable of being expressed in an easily measurable economic unit like the Naira or Dollar.

If an outcome of an event or activity was common for a period, then no risk exist. The concern is mainly with an unfavorable deviation from expectations which is called loss. The factors that describe cause and those that contribute to loss are significant in the analysis of risk. These factors are exposure, perils and hazards.

Exposure is the degree to which an object has a potential of loss in a risky situation while perils are the immediate cause of loss. People are surrounded by risk because the environment is filled with perils such as floods, theft, death, sickness, accidents, fires, and lightning. Hazards are the conditions that lie behind the occurrence of losses from particular perils. Hazards can increase the probability of a loss, its severity

or both. Certain conditions that are often referred to as being hazards could be physical or intangible like moral hazards.

There are five classes of risk: Fundamental risk, particular risk, pure risk, speculative risk, and dynamic or static risk. Regarding the inherent risks in banking operation, they could be grouped into five: credit risk, liquidity risk, market risk, operational risk and solvency risk (Cade, 2010).

Risk Management System in Banks

Banks in the process of financial intermediation are confronted with various kinds of financial and non-financial risks viz., credit, interest rate, foreign exchange rate, liquidity, equity price, commodity price, legal, regulatory, reputational, and operational, (Meulbroek, 2002). These risks are highly interdependent as events that affect one area of risk can have implications for a range of other risk categories (Hoytand Liebenberg, 2011). This is why it is important for bank management to pay particular attention to process of risk identification, measurement, monitoring and control undertaken by a bank.

The basic parameters of risk management function cover the organizational structure of the bank, the entire risk measurement approach, approved risk management policy of the board, prudential limits structure, strong MIS platform for reporting, monitoring and controlling risks, effective risk control framework, robust risk management framework with responsibilities to staff involved in risk management process, and periodical review and evaluation of the process (Meulbroek, 2002).

Banks in general are involved in the process of risk management and risk reengineering and therefore develop high techniques in carrying out the tasks. The fundamental components of risk management system include risk identification, risk assessment to appreciate their magnitude, risk mitigation and reserving capital for possible losses.

Risk Management Structure

It is the management's responsibility to choose between centralized and decentralized structure of risk management. The global trend favors the centralization of risk management in banks with integrated treasury management function which support or flow with information on aggregate exposure, natural netting of exposures, economies of scale and easier reporting to top management (Meulbroek, 2002). It is the board's responsibility to formulate the bank risk management policies which clearly states the risk appetite of the bank and to ensure that the risks are adequately managed (BCBS, 2001). The board sets risk limits by determining the bank's risk bearing capacity. It is expected that at the organizational level, the total risk the bank is exposed to, needs to be assigned to an independent risk management committee which reports to the board (BCBS, 2001). The essence of the committee is to empower a group of executive members of the management with the responsibility of evaluating overall risks faced by the bank and the appropriate level of the risk to be taken by the bank. The committee would always hold the line managers accountable for the risk under their control and the eventual performance of the bank in that area. The main function of the risk management committee is to identify, monitor and measure the risk profile of the bank. They also develop policies and procedures; verify the models that are used in pricing complex

products, reviewing the risk models in compliance with market changes in addition to identifying new risks (BCBS, 2001).

The risk policies are expected to detail the quantitative prudential limits on various segments of banks operations. The trend intentionally, is prone to assigning risk limits in terms of portfolio standards for credit risks, and Earnings at Risk and Value at Risk for market risk. The committee usually designs stress scenarios to measure the impact of issued market condition and monitor variance between actual volatility of portfolio value and the prediction by the risk measures (Lam, 2000; Sobel & Reading, 2004). The committee also is expected to monitor compliance of various risk management rules set by the operating departments.

The nature of banking operation leaves banks with fiduciary responsibility towards their depositor beyond their duties to their shareholders like other organizations. The banks owe responsibility to all depositors and investors and finally to the taxpayers who bear the cost of bailout in case they become illiquid. This is why it is necessary for bank management to ensure that very high standard of risk management and control which is an important component for banking supervision to set up to guarantee the survival of banks. The emphasis for a robust control environment has been strengthened by many other governmental initiatives in USA like the Sarbanes-Oxly Act and other anti-money laundering rules for internal governance of banks by many governments all over the world.

In view of the differences in the profile of companies' balance sheets, it may not be possible adopting a uniform framework for risk management in Nigerian banks. The

outlook and design of risk management function usually follow bank specifics which will depend on size, how complex the functions are technical expertise and MIS quality (Allen el al., 1989). Broad parameters are usually provided and each bank may determine its own approach which is compatible to its risk management view (Meulbroek, 2002).

The committee approach is usually the acceptable international standard in risk management in banks. While the asset - liability management committee (ALCO) deal with different types of market risk, the credit policy committee (CPC) oversees the credit and counterparty risk and country risk (Allen et al., 1989). Thus, market and credit risks are managed in a parallel two-track approach in banks. Banks could also set-up a single committee for integrated management of credit and market risks. Generally, the policies and procedures for market risk are articulated in the ALM policies and credit risk is addressed in loan policies and procedures (BCBS, 2001).

Currently, while market variables are held constant for quantifying credit risk, credit variables are held constant in estimating market risk (Nuborg et al., 2002). The economic crises in some of the countries have revealed a strong correlation between market risks that are not hedged and credit risks.

Foreign Exchange exposures, assumed by banks that have no natural hedges, will increase the credit risk which banks run vis-à-vis their counterparties. The volatility in the prices of collateral also significantly affects the quality of the loan book. Thus, there is a need for integration of the activities of both the ALCO and the CPC and consultation process should be established to evaluate the impact of market and credit risks on the

financial strength of banks (Markowitz, 1989). Banks may also consider integrating market risk elements into their credit risk assessment process (BCBS, 2001).

ERM in the Banking Industry

ERM has become an inevitable requirement for the prevention and sustenance of financial stability of both national and international banking institutions (Bolgun & Akcay 2005). Many banking institutions before now have been engaged in a one on one management of the risks which by all standards never gave the expected results. The present perspective which is the ERM concept which is the approach where all the risks are evaluated and managed holistically in line with the targets of the bank.

There are many definitions given to the ERM but the one given by COSO stands out as the most comprehensive. It defines ERM as

> A process, affected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objective. (COSO, 2004, p.215)

It can be seen from the definition that the management of the inherent risks is seen as means of achieving organizational goal. This makes it necessary for banks to foresee, measure, evaluate and manage risks effectively in a proactive way in order to achieve the expected goal of the bank. This is why the ERM culture should be adopted into the corporate culture of all banks. It is interesting to note that many banks in Nigeria are now towing that route as they are now appointing top management staff/directors to be in

charge of risk management operations as the Chief Risk Officer (CRO) creating a culture that flows from up to down of bank structure/hierarchy.

Another interesting definition is given by Meulbroek (2002) which says that ERM is a management process that requires a firm's management to identify and assess the collective risks that affect firm value and apply an enterprise wide strategy to manage those risks in order to establish an effective risk management strategy (Meulbroek, 2002). The main objective of risk management remains the maximization of shareholder's value (Beasley et al., 2008; CAS, 2003; COSO, 2004; Hoyt & Liebenberg, 2011; Pagach & Warr, 2011). According to Hoyt and Liebenberg (2011), profit maximizing firms should consider the implementation of ERM program if it guarantees increases in expected shareholder value. Risk management has gone through a narrow view that evaluates risk from a Silo perspective to a holistic all-encompassing view (Beasley et al., 2005; Liebenderg & Hoyt, 2003; Pagach & Warr, 2011; Tufano 1996). Adopting the basic ERM and managing each risk class in a separate silo creates inefficiencies as the process would not be properly coordinated between the various risk management sections (Fabozzi & Drake, 2009). ERM on the other hand makes room for integrated decision-making across various risk classes, avoiding duplication of expenditures relating to risk management by exploiting natural hedges.

The main objective of ERM remains to increase shareholders value as earlier indicated. To be able to achieve this, it first improves capital efficiency by provisioning effectively the allocation of corporate resources. Secondly, the ERM supports decision-making by exposing areas of high risk and suggesting risk base advocacy, thirdly it helps

to build investor confidence by establishing stability in financial results and demonstrating to all stakeholders that the bank practises sound risk stewardship (Lajili & Zeghal, 2005; Perrin, 2000).

Regarding the effect of ERM on business performance, Smithson and Simkins (2005) provides an excellent review of the relationship between the use of risk management and the value of the firm. They believe that business performance is synonymous with maximizing shareholders' value.

It has been established that ERM has positive correlation with bank size and ownership. It is however important to note that the relationship between ERM and performance is dependent on five major variables: environmental ambiguity, company size, complexity of the company industrial competition and board of directors (Gordon et. al., 2009). With these variables in a well-structured bank it can be said that the relationship between ERM and bank performance should be positively correlated. Generally however, the correlation between them depends on appropriate matching of the five variables. The adoptable research methodology to capture the relationship between ERM and performance in bank together with the notable variables as indicated above.

The Bow-Tie Technique of Risk Management

The Bow-Tie technique is a structured approach for scenario analysis which has worked effectively for other industries like Airline and Mining where safety management is critical. The usefulness of the technique becomes manifest when the Basel II definitive rule on capital charges for operational risk, allowed banks to calculate regulatory capital using their own internal models. The use of scenario analysis was made necessary by

Basel II in identifying low-probability, high-severity loss events. The Bow-Tie provides this as it helps banking institutions to model their risks in a simple visual format that is shaped like the bow-tie. The indication is that risk management through the Bow-Tie approach in the framework of the ERM would definitely influence performance especially through regulation and corporate governance adherence (McConnell & Davies, 2008).

Basel II proposals required that an ORM system must be implemented by an independent operational risk functions responsible for the development and implementation strategies, methodologies and risk reporting system which is aimed at identifying, measuring and monitoring and controlling/mitigating operational risk (Basel 2004). The committee also indicated that for banks to qualify to use the (AMA) in calculating operational risk capital under Pillar 1 of Basel II, it must meet certain qualitative standards amongst which is an independent operational risk management functions which is akin to the ERM environment. This the Bow-Tie technique provided. The platform of ERM would make the coordination of people, processes technology and other internal and external events possible in the use of the Bow-Tie technique. The technique is here recommended beyond the operational risk management angle to the entire risks management of the bank.

Distress in Banks

In ordinary sense, it distress connotes weakness or unhealthy situation which prevents the achievement of set goals and aspirations (Smith & Wall, 1992). According to Ologun (1994), a financial institution is described as unhealthy, if it is unable to meet

its obligation to customers, owners and the economy occasioned by severe financial, operational and managerial weaknesses. For the banking industry as a whole, Elebuta (1999) described distress in banking as when a fairly responsible proportion of banks in the banking sector is unable to meet their obligation to customers, owners and the economy, as a result of weakness in the financial, operational, and managerial capacities which renders them either illiquid or insolvent.

Distress in Nigeria banking sector emerged in 1954 when 21 out of 25 indigenous banks established prior to 1954 failed. This was mainly because of inadequate capital, mismanagement, overtrading, lack of regulation and unfair competition from foreign-owned banks at that time. The introduction of the banking ordinance of 1952 and the establishment of the Central Bank in 1959 followed by the promulgation of the banking degree of 1969 brought some form of stability in the banking sector in Nigeria. However, the oil boom from 1973, and the general economic growth that followed enhanced banking activities in the country. The economic downturn from 1981 in Nigeria also affected the banking industry negatively as many companies and individuals were not able to control their spending habits in line with the depressed economy. This resulted to all the economic agents' inability to honor their loan obligations to banks which adversely affected banks portfolio quality. This economic situation coupled with other institutional factors such as mismanagement, affected the health of many banks adversely. These factors led many banks to financial distress characterized by poor assets quality, poor capitalization, illiquidity and insolvency.

In 1989, for example, seven banks owned by state governments became technical insolvent. From that point the issues of distress in the Nigerian banking industry has been in the increase. In 1989, seven banks were observed to be distressed, 28 in 1993, and about 52 in 1996 out of the 87 banks. By the year 2000, the number of distressed banks stood at eleven out of the existing banks then. The licenses of three of the 11 banks were eventually revoked leaving out eight which were recapitalized by CBN and their boards/management reconstituted.

A major danger of bank distress is the threat to the efficient payment mechanism. Banks play crucial role in economic development of every nation by mobilizing savings and channeling them into investments for economic development. Banks would only be able to play these roles if they are functioning efficiently. Where they are unable to provide timely and quality services, they could hinder economic growth and development (Cameron 1972; Mckinnon, 1973). This is why governments, pay particular attention to their financial system as catalyst for economic development. The aim of government is to ensure a safe and sound system where depositors and consumers are protected so as to ensure monetary stability (Spong, 1990). Government equally through its laws, policies and regulatory institution extensively regulates banks in order to minimize risk and cost of failure (Dale, 1984). The government efforts to protect the financial system notwithstanding, banks still fail. The failures have serious implications for the financial system and by extension the economy (NDIC, 1998). Usually, a generalized state of banking distress retard economic growth rate.

The office of United States Controller of Currency for example carried an analysis in 1988 which brought about the CAMEL rating system. The categorization of a financial organization as a problem or distressed institution is usually based on CAMEL rating system (Ebnodaghe, 1993; Nyong, 1994; Sunkey, 1980). Under this system, the regulatory supervisory authorities assess a bank performance in five areas namely.

C= capital adequacy

A= asset quality

M= management competence

E= earning strength and

L= liquidity sufficiency

The status of every bank is usually determined by these ratios. When they deviate negatively from the predetermined criteria level by the relevant authorities, the bank is seen as having symptoms of distress. According to Ebhodeghe (1993), a distressed bank is usually one where the evaluation depicts poor condition in all or most of the five performance factors as follows:

- Gross under-capitalization in relation to the level of operation.
- High level of classified loan and advances.
- Liquidity reflected in the inability to meet customers' cash withdrawals.
- Low earnings resulting from huge operational losses and
- Weak management as reflected by poor credit quality, inadequate internal controls, high rate of frauds and forgeries, and labour turnover.

Gbojikwe (1996) identified the following as the common features of a distressed bank.

- large volume of nonperforming assets
- persistent liquidity deficiency
- accumulated losses which erodes shareholders' base
- the bank will in most cases require financing assistance from regulatory authorities

Distress in a bank comes as a result of the interplay of the above features. The three main classification of Distress in banks are:

- Banks that are illiquid but solvent. This is when banks have realizable assets more than its liabilities.
- Banks that are insolvent but liquid. this is when realizable assets are less than the liabilities.
- Banks are classified as illiquid and insolvent when their liabilities exceed the realizable assets. This is an absolute bank failure or terminal distress (Gashinbaki, 2000). In this situation, the banking institution would not be able to meet its obligations to customers.

The Five Types of Risks Inherent in Banks

There are five groups of inherent risks that Banks face in their operation: credit risk, liquidity risk, market risk, operational risk and solvency risk (Cade, 1999).

Credit Risk

According to Huang and Dosterlee (2010), credit risk is the risk of loss resulting from an Obligor's inability to meet its obligation. It may arise from either an inability or an unwillingness to perform in the pre-committed contracted manner (Allen & Santamero, 1997). It stands the largest source of risk facing banking institutions, and for them to properly manage such risks means measuring the credit risks at portfolio levels to determine the amount of capital needed to hold as a cushion against extreme losses. Markowitz established that most banks losses were directly related to lax credit standard for borrowers and counterparties, poor portfolio management or lack of attention. In practice credit risk is measured by VaR which is the quantity of the distribution of portfolio loss for a given confidence level. In 1988, the BCBS introduced a capital measurement system commonly referred to as the Basel Capital Accord with a credit standard of 8% by end of 1992. Equally established, is that credit risk is usually low during economic boom and very high in an adverse economy (Phillip, 2012). This is why it is important that capital should be built up in good times, so that when the bad times come a sufficient buffer would have been built to take care of possible losses.

The main activity in a bank is the acceptance of deposit and to grant credits which exposes them to credit risk. Credit risk stands as one of the major risks faced by banks and the efficient management of this risk helps to improve the performance of banks (Gieseche, 2004). According to Coyle (2000) credit risk is the consequence of borrower's refusal or inability to pay what is owed when required. Credit risk therefore is the exposure faced by a bank as a result of a borrow default in meeting a debt obligation at

maturity. The cumulative effect of these defaults could result to financial distress of a bank if not managed appropriately. Banks are therefore expected to maintain their credit risk exposure within acceptable limit by maximizing their risk adjusted rate of return for the enhancement of their profit (Kargi, 2011). Banks with high credit risk exposure are prone to liquidity and possible solvency problems.

Liquidity Risk

The second type of risk inherent in banking operation is the Liquidity risk. Liquidity is the ability of a bank to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses (BCBS, 2008). The issue of banks transforming short-term deposits into long term loans makes banks inherently vulnerable to liquidity risk. Liquidity risk is therefore the possibility that over a specific time period, the bank will become unable to settle obligations with immediacy (Drehmann & Nikoladu, 2009). In other words, liquidity risk is the current and prospective risk of earnings on capital arising from a bank's inability to meet its obligations when they come due without incurring unacceptable losses.

The vulnerability of banks to liquidity risk is determined by the funding and the market risk (Joint Forum, 2006) the funding liquidity risk is caused by the maturity mismatch between inflows and outflows and/or the sudden and unexpected liquidity needs due to contingency condition (Duttweiler, 2009). The market liquidity risk results from the inability of a bank to sell assets at or near the fair value, and in the case of a relevant sale in a small market; it can emerge as a price slump (Brunnermeier & Pedersen, 2009).

Again liquidity risk could also arise as a result of banks inability to manage unplanned decreases in funding sources or from the failure to address changes in market conditions which may affect the liquidation of assets without losing its value. The funding of liquidity becomes important to banks that have a large stock of illiquid assets. Bank size matters because of the economy of scope and scale; concerning liquidity, a large bank might have better access to the International Bank market because it has larger network of regular counter parties or a wider range of collateral (Fechi et al., 2008). The product type offered to the counter parties, on both the assets and liabilities sides, is able to affect the liquidity position; banks that take on demand deposits and offer loan commitments need to hold higher liquidity buffers that can be mitigated if an imperfect correlation holds (Kshyap et al., 2002). Banks can form relationship networks to adjust liquidity when frictions hold on the wholesale and retail markets (Freixas et al., 2000). Bank deposits generally have a much shorter contractual maturity than loan and liquidity management and needs to provide a cushion to cover anticipated deposit withdrawals. Liquidity therefore is the ability to efficiently accommodate deposit and also the reduction in liabilities as well as to fund the loan growth and possible funding of the off-balance sheet claims. Liquidity risk consists of funding risk, time risk and call risk (Raghavan, 2000).

In asserting his position on the BCBS definition of liquidity risk, Federico (2012) in his essays on systemic liquidity risk first, examines how systemic exposure to liquidity risk is the main vulnerability that emerging market economies build to world-level shock that are transmitted through financial channels. Through the first essay he built a welfare

theoretic framework that is used in assessing the factors that give the full implication on such exposure determining how and when to regulate it. The second essay reviews the different sources of risks banks are exposed to as the main determinants of financial institutions failures during the global financial crisis.

Market Risk

The third type of risk inherent in banking operation is the market risk which emerged as a result of a recent regrouping in the risk factors in banking operation. It now attracts attention of both regulators and bank managers and comprises of interest rate, exchange rate, equity and commodities risk categories. Market risk is the risk arising from fluctuations of financial assets prices. The BCBS (1996) defined market risk as the risk of losses in on and off balance sheet positions arising from movements in market prices. The significance of market risk have been recognized in the new Capital Accord enunciated by the Basel Committee in 1999 acknowledging any market related factor that affects the value or a portfolio of instruments. The three commonly used approaches in regulating these market risks in banks include the building-block approach, internal model approach and precommitment approach.

The failure of major international banks like Barings Bank which had RBC standard above 8% in the 1990s brought to the fore that there could be other financial risks other than the credit risk that could lead to the collapse of a seemingly strong bank. This brought to fore the importance of market risk especially for banks that are involved in global operations that are exposed to interest rate risks, foreign exchange risks as they are allowed to create liabilities and assets in multi-currencies; also with the freedom

given to banks to trade in bonds, shares and debentures of organizations, price risk has come to the fore. With the growing incidence of market risks that are capable of leading to the collapse of banks, regulators of banks, and the BCBS tried to develop new sets of capital requirements that would ensure that banks have adequate capital provisions to take care of market risk in their operation. Central to the additional capital requirement is for banks to take care of their internal risk management capabilities.

This meant the broadening of the risk weights used in computing risk-weighted assets. The BCBS in the new capital accord broadened the denominator to indicate credit risk, operational risk and market risk against the earlier position in the first accord that had only credit risk as the denominator. The BCBS encouraged banks to adopt statistical risk management techniques such as value-at-risk regarding balance sheet items that are susceptible to market price fluctuations, foreign exchange rate volatility and interest rate changes. The suggestions of the BCBS spurred banking sectors in Europe and United States to reengineer the process of risk management to have an integrated treasury management, internalizing the information synergies on various scopes of risks. At this point emphasis was placed that the Board of every bank has the responsibility of visualizing the risks undertaken by banks and how proactively they could be handled. The boards of banks then operated through risk management committees which are entrusted with the task of identifying, measuring and monitoring the risk profile of the banks. The committees designed stress scenarios to measure the impact of abnormal market conditions monitoring the variance of the portfolio within tolerable limits. These led to the introduction of the Enterprise Risk Management Scheme adopting the ICAAP

(UK) and COSO (U.S.) frameworks to ensure that the highest risk management standards are adopted by banks.

Two common models for banks to compute the interest sensitivity of their assets and liability portfolio are the maturity gap system and the duration gap approach. One of the alternative approaches towards regulating market risk is building blocks approach (BBA) which complements the extent capital adequacy framework works, under this approach, capital charges are determined for each of the four major market risk components: that is, interest rate, exchange rate equity and commodities, the respective capital charge on each is determined. Equity capital charges for example are determined on a notional market basis and are then aggregated across markets at current exchange rates with no offsets permitted for hedging or diversification among markets (Kupiec & O' Brien, 1997).

The appropriate method of setting bank capital standard for market risks is moving away from regulatory standard model approaches to the use of banks' internal risk estimate (Nachane et al., 2001). This is an impressive development as internal-model based approaches are advantageous to banks in terms of effectiveness for risk-based capital standards. The advantages of the internal models approach notwithstanding, its focus on risk measurement of a static portfolio solely and neglecting the basic determinants of bank's trading risk taking strategies and its risk management abilities tend to favor the precommitment approach over its use.

Operational Risk

Operational risk is the risk of monetary losses resulting from inadequate or failed internal processes, people, and systems or from external events (BCBS, 2001).This risk mainly comprises of human error in banking operation, financial fraud and natural disasters that could cause losses to banks and possibly lead to their collapse. The collapse of Baring Bank in 1995 resulting from unauthorized speculations was a starting point of intensified works on operational risk initiated by BCBS. The Baring bank situation coupled with the collapse of many investment banks in the 1990s resulting from risks associated with operational risk other than the core or regular banking risks that were not controlled in time. It includes legal risk but excludes strategic, reputational and systematic risks. This then revealed the complexity of operational risk because of its types and causes. The BCBS in its Basel II document identified seven types of operational risks: (a) internal fraud: an act intended to defraud, misappropriate property or avoid regulations, law or company policy, excluding diversity/discrimination events, which involve at least one internal party; (b) external fraud: an act of a type intended to defraud, misappropriate property or circumvent the law, by an external party; (c) employment practices and workplace safety: an act inconsistent with employment, health or safety laws or agreements, from payment of personal grievance claims, or from diversity/discrimination events; (d) clients, products, and business practices: an unintentional or negligent breakdown to meet a professional obligation to specific clients (including fiduciary and suitability requirements), or from the nature or design of a produc; (e) damage to physical assets: the loss or damage to physical assets from natural

disaster or other events; (f) business disruption and system failures: disruption of business or system failures; and (g) execution, delivery, and process management: failed transaction processing or process management, from relations with trade counterparties and vendors" (Eladlouni, Ezzahid, & Mouatassim, 2011, p. 100).

According to the British Bankers Association (1997), on their own defined operational risk as the

> Risk associated with human error, inadequate procedures and control, fraudulent criminal activities; the risks caused by technological shortcomings, system breakdowns; all risks which are not 'banking' and arise from business decisions as competitive actions, pricing etc.; legal risk and risk to business relationships' failure to meet regulatory requirements or an adverse impact on the bank's reputation; "external factors" including natural disasters, terrorist attacks and fraudulent activity etc.

The BBA in other words regarded it as the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events. Risk from external events here covers different uncontrollable factors including natural disaster, terrorism attacks that might disrupt in bank's operation and cause business losses to it. The internal processes could be closely tied to a bank's specific products and business lines and they are more specific than the risks from the external events (Lopez, 2002). The inadequate and failed internal processes could include the entire staff of the stakeholders in the transaction chain that may exceed or breach the authority given to them for conducting that type of business. These activities are usually conducted in

unethical manner that often result to losses to the banks. Not minding the growing incidence of operational risk in banking operation over the years, banks still pay little attention to strategies dealing with operational risk as they have done with the management of other inherent risks in banking operation like credit and market risks that are regarded as core which frequencies in bank operation are more and the impact on profitability is often direct and immediate. This is unlike the impact of the operational risks which is only felt when the bank suffers huge losses from a particular event.

Solvency Risk

Theories of Solvency Risk Management in Banks: Solvency risk remains a secondary category of risk in banks operation, and is hinging on capital adequacy to accommodate unexpected losses emanating from the primary risks incurred in the business of banking. This risk is induced by human attitude and is not a direct risk from banking operation but emanates from inefficient management of other inherent risks in banking. It is important for bank to develop keen interest in identifying these risks, appropriately measure them and find ways to mitigate and control them in their operations. The main aim of doing this is to be able to report substantial profit at the end of every year and to be able to continue to survive as a business entity. It is with this level of efficient operation that the bank would be able to make expected reserves and provisions in order to absorb future losses when they occur. Where these reserves and provisions fail, equity capital stands in to safeguard the Bank.

It would be recalled that in the 1980s and 1990s, many leading banks around the world declared hug annual losses resulting from primary (especially credit) risks

mismanagement; but, most of those who survived without the need for external support was because their capital cushion was adequate. This means that their solvency risk management was good.

The issue here is that other primary risks inherent in banks operation may occasion the unexpected losses but the level of solvency protection obviously determines the survival of the bank. Solvency is therefore not an irrelevant risk category. It was said that Walter Bagehor, the 19th century banker, journalist and political commentator once said that "a well managed bank need no capital, whilst no amount of capital can save an ill managed bank" (Cade, 1999). This could not be entirely true but there could be grains of truth in some of the phrases used. In the first place, how well managed, how ill managed, what about all the intermediate conditions? It is undisputable that adequate management of a bank especially the inherent risk is important, but it cannot be all, and moreover who guarantees the quality of its management. Although the management of banks may change, the structure and processes in place may help to prolong the status of the management. A bank's management may be good in one decade and in another bad because of certain wrong decisions taken at onetime that pull down its resources. With all these in mind, the place of adequate capital in banks operation cannot be dismissed. Capital is as important as risk capital is in business generally.

It is pertinent to mention that a bank's primary risks are not taken care of solely by throwing in more capital in its operation. It is however more important to manage the inherent risks to an acceptable level where stable and economic returns could be made. Strong capital ratio alone on the other hand will not tell the direction of a bank. This is

why Cade (1999), indicated that “sustained profitability is the first line of defense, which in practice adsorbed nearly all losses, and it is equally the only long term guarantor of a bank’s viability.”

Risk Management and Corporate Governance

There is a close relation between corporate governance and risk management in banking operation (Manab et al., 2010). A common factor responsible for previous corporate failures has been linked to ineffective control by banks' board of directors of banks activities and lack of effective risk management. The obvious thing in most cases is that s good intentioned board may be failing in carrying out its oversight functions appropriately (Manab et al., 2010). Amongst the duties expected from Directors of Banks is to ensure that an effective system of risk management is in place, that is, that the operators are aware of the risks the bank is facing and that a system for monitoring and controlling them is in place. Based on this, it could be seen that risk management is a part of corporate governance in banking operation (Lam, 2000; Sobel & Reading, 2004).

Corporate governance is the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structures through which the company objectives are set, and the means of attaining those objectives and monitoring performances (Rosen & Zenios, 2001).

Shleifer and Vishny (1997) defined corporate governance as the way in which suppliers of finance to corporation assure themselves of getting a return on their investment. It focuses on the inter-relationship between principals, agents and other stakeholders who may have different interests in the firm. Macey and O' Hara (2001) argue that an intermediary view on corporate governance be taken in the case of banks. By 2006, most central Banks in both developed and developing countries of the world have commenced the implementation of good corporate governance rules and risk management control of their operations in line with BCBS rules. These actions indicate that the Central Bank of these countries have been concerned about the importance of relationship between corporate governance, risk management, regulation and bank performance.

Effective corporate governance practices are essential to achieving and maintaining public trust and confidence in the banking system, which are critical to the proper functioning of the banking sector and economy as a whole. Poor corporate governance can contribute to bank failures, which can in turn pose significant public costs and consequences due to their potential impact on any applicable deposit insurance system and the possibility of broader macroeconomic implications, such as contagion risk and impact on payment systems. This has been illustrated in the financial crisis that began in mid-2007. In addition, poor corporate governance can lead markets to lose confidence in the ability of bank to properly manage its assets and liabilities, including deposits, which could in turn trigger a bank run or liquidity crisis. In addition to their responsibilities to shareholders, banks also have a responsibility to their depositors and to

other recognized stakeholders. The legal and regulatory system in a country determines the formal responsibilities a bank has to its shareholders, depositors, and other relevant stakeholders.

From a banking industry perspective, corporate governance involves the allocation of authority and responsibilities. The noted bank failures are traced to poor risk management and corporate governance (Manch et al., 2010). Corporate governance and risk management are interrelated and interdependent (Quon, Zeghal, & Maingot, 2012). The stability and improvement of bank performance are highly dependent on effective role of risk management and corporate governance components (Manab et al., 2010; Sobil & Reding, 2004).

History of Banks failure in Nigeria

Brief History of Banking in Nigeria

There was no legislation governing banking operation in Nigeria before 1952. As far back as 1892, the British Bank of West Africa (BBWA) was established in Nigeria, followed by the establishment of Barclays Bank in 1917 as the second expatriate bank in Nigeria. By 1933, the National Bank of Nigeria came on board as the first indigenous bank. After the World War II, with the passage of the 1946 Nigerian Constitution which gave majority seats in the National Assembly to Nigerians, the British rule over Nigeria became weak. This encouraged the then Nigerian government to commence the regulation of banking starting with the passage of the Bank Ordinance of 1952. The failure before that time of 21 out of the 25 Nigerian banks was the motivation for the passage of the 1952 ordinance. Subsequently in 1958, the Central Bank of Nigeria (CBN)

Ordinance was passed to strengthen banking operation in Nigeria. The CBN began full operations on July 1, 1959.

Between 1960 and 1970 witnessed the birth of many more financial institutions and the greater influence of Nigerian government in regulating and owning banks in Nigeria. With the promulgation of the Indigenous Enterprises Promotion Decrees of 1972 and 1977, Nigerian government acquired 60 percent ownership of the foreign owned banks operating in Nigeria including First Bank, Union Bank, and United Bank of Africa (UBA). By 1979, banks that were predominantly owned by federal government of Nigeria dominated the Nigerian Banking Industry. The privately owned banks started emerging after 1979 but the federal government dominated banking industry up to mid 1980s when the Structural Adjustment Program was introduced. This program came as a condition for the loan obtained from the IMF by the federal government which required economic liberalization and decreased government ownership of organizations thereby encouraging privatization policy of government enterprises. The policy then eased bank licensing requirements which increased the number of banks from 40 to 120 between 1985 to 1992. By 1988, the Nigerian Deposit Insurance Corporation (NDIC) was created to offer deposit insurance covering depositors in case of bank failures. Later in 1991, the Bank and other Financial Institutions Decree (BOFIT) was enacted which brought the supervision and regulation of all Financial Institutions under the CBN. Before this period, the supervision of non-Banks was shared between the Ministry of Finance and CBN.

Consolidation of Banks in Nigeria (2004-2005)

The former governor of CBN, Soludo, in 2004 commenced the consolidation of the Nigerian Banking Industry, and increased the minimum capitalization of Banks from ₦2billion to ₦25billion (about US $173million). A dateline of 31, December 2005 about 18 months was given to the existing banks then to meet this requirement or lose their license. The aim was to consolidate the existing banks into fewer and financially stronger banks. This policy made some of the 89 existing banks then to merge and by the end of 2004 they were consolidated into 25 larger bankers that were better capitalized. Thirteen of the 89 banks could not merge nor increased their capital by the set dateline resulting to the revocation of their licenses.

General Examination of the Consolidated Banks (2009)

A new governor of CBN, Sanusi was appointed in June 2009, when Soludo served out his term as the governor of CBN. He immediately on his appointment set up a joint Committee of Central Bank of Nigeria and the NDIC to conduct a special examination of the consolidated banks that then operated the universal banking model. On August 14, 2009, the CBN announced the result of the examination of the first 10 banks and indicated that five of them were insolvent. The five banks were: Oceanic Bank, Union Bank, Afribank, Finbank, and Intercontinental Bank. The aggregate percentage of nonperforming loans of these five banks was 40.81% and they were chronic borrowers at the expanded Discount Window (EDW) of the CBN indicating that they were illiquid (Alford, 2012). As the lender of last resort, the CBN injected the sum of ₦420billion about US$2.8billion into these banks in form of a subordinated loan. Because these banks

controlled 30% of the deposits in the Nigerian banking system, this almost resulted into a systemic risk if not for early intervention of CBN to bail them out. As expected, the CBN also referred the results of their examination to the Economic and Financial Crimes Commission (EFCC) for prosecution of the criminal activities observed. The governor of CBN also published a list of the purported names of debtors of nonperforming loans held by Nigerian Banks. Subsequently, the CBN completed its special examination of the remaining fourteen banks in Nigeria to know how solvent they were. Based on the result of this examination, CBN dismissed the CEOs of three additional insolvent banks: Bank PHB, spring Bank, and Equatorial Trust Bank, and injected an additional ₦200 billion into them. Unity Bank the forth insolvent bank was spared because they were found to have a form of liquidity. It was also found during the CBN examination that the three insolvent banks obtained funds through the Expanded Discount Window of the CBN as follows: Bank PHB (₦64 billion Naira) Spring (₦80billion) and Equatorial Trust Bank (₦56billion of which ₦30billion was repaid). The CBN governor made it clear that the aim of the recapitalization of the banks was not to nationalize them but to safe the banking system from serious distress that could lead to systemic risk in the industry. In all, eight banks were recapitalized to the tune of ₦620billion about US$4.1 billion which represents 2.5% of Nigeria's entire 2012 GDP of US$167billion. Based also on the special examination CBN confirmed that Nigerian banks wrote off loans equal to 66% of their total capital, most of which were transactions in the eight banks recapitalized by CBN. The completion of the audit exercise ended the first phase of the restructuring exercise of the Nigerian banking industry and keeping it stable.

The report of the special audit exercise equally confirmed the soundness of some banks operating in the Nigerian market. Such banks as Access Bank, Zenith Bank, G.T Bank, and First Bank were relatively capitalized. In addition, the foreign owned banks like Stanbic-IBTC, a subsidiary of South African owned Standard Bank, Standard Chartered Nigeria, Citibank Nigeria and Ecobank were found to be sound. Among the actions taken by the CBN Governor to reassure foreign investors of the integrity of the clean-up exercise was to guarantee all foreign credit lines and interbank placements up to December 31, 2010.

Major Causes of Recent Round of Bank Failures in Nigeria (2009)

The general underlying causes of bank failures range from managerial, institutional, and economic to industrial specific issues or determinants (Sebellos & Thomson, 1990). Breaking these factors further down would look at capital inadequacy, lack of transparency and hug nonperforming loans as the major causes (Adeyemi, 2012). I looked more into economic factors, general poor risk management culture, poor corporate governance adherence, and non-adherence to regulations coupled with weak supervisory or regulatory instruments/strategies.

In Nigeria it is important to indicate that modern banking commenced in 1892 when African Banking Corporation (ABC) was founded by a South African. This bank metamorphosed to become what is now known as First Bank of Nigeria. However, the free banking period ended with the promulgation of Banking Ordinance in 1952. This notwithstanding Nigeria experienced series of bank failures between 1952 and 1958. Only four out of the twenty-five indigenous existing banks then survived while twenty-

one others collapsed (Uzoaga, 1981). Following the establishment of CBN in 1958 by the promulgation of the Central Bank Act 1958, the regulation and control of the banking industry in Nigeria improved. The pre CBN bank failures were therefore attributed to absence of regulation while the post CBN failures causes range from poor risk management coupled with a nonadherence to good corporate governance rules, to nonadherence to regulation and to some economic and political factors which this study is empirically trying to prove. It is important to note also that first symptom of distress in the Nigerian Financial System was officially revealed by the World Bank team that examined the financial sector shortly before they recommended the establishment of Nigeria Deposit Insurance Corporation (NDIC) via Decree No 22 of 1988. The corporation took off in February 1989. The critical stress at this point was traced to the transfer of Government agencies' accounts to the CBN, investment mismatches, paper profits, round tripping in foreign exchange and other rent seeking activities (Ndiulor, 2000).

Another round of bank failure happened between 1994-2003 when CBN withdrew many banks' licenses and NDIC liquidated their assets thereafter. The 2004 banking sector reform also saw the closure of 14 additional banks. The reoccurrence of bank failure in Nigeria at the time became a matter of concern both to the entire nation in general but to customers, practitioners and bank investors in particular. By 1989 stretching to 1996, the financial conditions of many banks worsened tending toward serious distress. This compelled the authorities to take necessary steps to restore public confidence in the financial system. During this period about 52 banks were classified as

distressed. Another round of banking crisis commenced resulting from the annulment of the 1993 presidential election resulting in the CBN revoking the licenses of five additional banks; four in 1994 and one in 1995.

The CBN took over the management of 17 distressed banks in 1995 and one additional bank in 1996 (Adeyemi, 2011). With effect from January 16, 1998, exercising its power under the Banks and other Financial Institutions Act, 1991 (as amended) revoked the licenses of 26 banks which were based on their serious financial distress. This was the critical situation of the banking sector up to July 2004 “when the CBN Prof. Soludo commenced the consolidation of the banking industry with the increase in the minimum share capital of banks to N25billion.”

From 2009, the current CBN governor, Sanusi commenced a new wave of banking revolution to sanitize and save the banking industry from another chain of distress. He identified eight main causes to the apparent financial crises: "(1) macroeconomic instability caused by large and sudden capital inflows; (2) major failures in corporate governance at banks; (3) lack of investor and consumer sophistication, (4) inadequate disclosure and transparency about financial position of banks; (5) critical gaps in regulatory frameworks and regulations; (6) uneven supervision and enforcement; (7) unstructured governance and management processes at the CBN/weaknesses with the business environment” (Sanusi, 2010). All these could be summed-up as economic factors, managerial factors, poor risk management, poor corporate governance culture, nonadherence to regulation and critical gaps in regulatory framework and supervision.

Framework for Banking Reforms in Nigeria (2009 to 2012)

The current CBN governor who is a trained financial risk manager and former Managing Director of First Bank of Nigeria Plc, is bringing his wealth of experience and exposure on issues of risk management in banks and the guideline of BCBS on banking operation to save the Nigerian banking industry. CBN under his leadership has initiated further policy moves to sanitize the Nigerian banking industry. Four of such latest moves are: first, changing the accounting year of all banks to run from January 1, to December 31 for the purpose of creating a level playing field in the banking sector postconsolidation. Second, CBN is seeking banks to adopt IFRS by the end of 2012. Third, CBN is aggressively pursuing accounting reforms to improve disclosure to regulators, investors and depositors on the financial health of Nigerian banks. CBN is trying to achieve this by insisting on a format of financial information reporting from banks to disclose necessary information on their annual financial statements. Fourth, that CBN in January 2010 issued regulations limiting the terms of CEO's of banks to a maximum of ten years retrospectively. This is intended to improve corporate governance of Nigerian Banks to avoid the "sit tight syndrome" where CEOs manage the bank. CBN also insists that similar rule is imposed on bank auditors and nonexecutive directors. These rules came as a result of observed corporate governance deficiencies amongst the insolvent banks.

The CBN also in 2010 announced plans to dismantle the universal bank concept in the Nigerian banking system and in its place to categorize banks by functions and allow a variety of banks to operate in Nigeria with different levels of capital depending

on the bank's function against the single current minimum capital of ₦25billion (about US $173 million). The intention is to create banks that would serve different market segments, such small and medium sized enterprises, and to phase out the "one-size fits all" type of bank.

The removal of toxic assets or nonperforming loans from the books of the operating banks is a key component of the second phase of the CBN banking reform in Nigeria. In this regard, the CBN and the Ministry of Finance promoted the AMCON (Asset Management Company of Nigeria) and proposed a bill to the National Assembly on this, which was passed to law in 2010. AMCON focuses on the purchase of nonperforming loans from the eight banks that have been recapitalized by government. There are about 1.06 trillion Naira of such nonperforming loans in the Nigerian banking system. The AMCON concept is to purchase the banks' debts to give them a clean balance sheet to operate with.

In helping the development of financial infrastructure in Nigeria, CBN in 2010 initiated the first privately owned credit bureau called CRC Credit Bureau. This created the necessary credit history of borrowers to assist banks in confirming the credit worthiness of borrower. Twelve Nigerian Banks, the International Finance Corporation, Accenture and Dun & Bradstreet are the joint owners of CRC Credit Bureau. The Bureau will coordinate the collection of credit information from lenders which will be used in building a data base of credit worthiness of borrowers in the Nigerian Financial System. The governor of CBN has repeatedly indicated the desire to have foreign investors participate in the ownership of the bailed out banks. He also predicted to see the number

of banks operating in Nigeria reduced to 15 and to be sure none of them controls more than 20% of the market. The CBN is desirous to see foreign investors take over the eight government acquired banks. These investors, the CBN insists must possess the expertise for risk management, corporate governance and efficient management. With the full take-off of AMCON, the CBN is now ready for the full consolidation of the eight bailed-out banks. The CBN has preference for foreign banks with existing operations in Nigeria to take over the ownership of the eight banks. CBN believed that the foreign ownership of the eight banks would bridge the skill gaps present in the Nigerian banking industry. The present governor of CBN, Sanusi, believed that the failure of CBN in carrying out its expected supervisory roles in the industry contributed in the noncompliance of the banks to the rules that gave opportunity to the fraudulent CEO to ruin their banks financially. According to Sanusi (2011), that CBN did not conduct a single routine examination of the Nigerian bank from 2004 to 2008. He has led CBN to a structured supervision of Nigerian Banking Industry from 2009.

Specific Framework for the Banking Reform

According to the Governor of CBN, Sanusi (2010), there are four pillars upon which the financial reform in Nigeria will rest: (a) enhancing the quality of banks, (b) establishing financial stability, (c) enabling healthy financial sector evolution, and (d) ensuring the financial section contributes to the real economy.

Under the first pillar, he advocated the enhancement of banks quality where regulations are adhered to and where good corporate governance rules are closely obeyed. The CBN in this regard, intends to come up with new governance guidelines

requiring banks to update their corporate governance statements, educating board members of their responsibilities as contained in the BCBS governance rules. Under this rule, CBN creates a new amnesty program that allows directors to disclose conflicts without any form of penalty. Also, banks above certain size will be required to create international advisory panels on corporate governance. Other plans of the CBN under this pillar is to implement the risk-based supervision in line with the BCBS rules of international standards of supervision processes, technology and people on financial regulation. Consumer protection rules would form part of the reform program here.

The second pillar concerns the establishment of financial stability in the Nigerian Banking Industry. Sanusi noted that the Nigerian's economy has performed below expected level looking at the potentials in the Nigerian environment. In maintaining strategic stability, CBN expected that Nigeria should address the volatility of oil prices and should harness its oil resources for strategic investment purposes (Sanusi, 2010). According to Sanusi (2010), a more interventionist and directional economic policy in Nigeria remain the strategic solution. He advocates that the maintenance of systemic stability lies in the use of the Financial Stability Committee (FSC) and Monetary Policy Committee (MPC) of CBN as the primary regulatory vehicles. The FSC will be expected to maintain systemic stability while the MPC will focus on price stability avoiding asset bubbles.

The third pillar looks at the enablement of Healthy Financial Sector Evolution. The CBN advocated a smaller number of banks in the Nigerian financial system. This is why the CBN Governor looks at reducing the number of banks to 15 after the current

consolidation exercise. It also intends to bring in more foreign investors through the eight banks recapitalized or bailed out by CBN. The CBN is also reviewing the one-size-fit-all banking model and intends to introduce more diversity into the Nigerian banking industry.

The fourth pillar ensures that the financial sector contributes to the real economy of Nigeria. The CBN advocates for an increase in policy lending program to aid economic growth of the country. CBN intended to create a pilot program similar to those of other successful developing nations on what it called social economic development. The dream of CBN is achieving a sustainable growth path through substantial and fundamental economic reform which requires the political will to reduce corruption and uphold the rule of law (Sanusi, 2010). The negative political influence contributing to the failure of banks in Nigeria are the pervasive corruption in Nigerian economy and the weak rule of law.

Banking Regulation on the Various Risks

Basel Accords: Basel I, Basel II & Basel III

Markowitz (1988) established that most banks losses were directly related to lax credit standard for borrowers and counter parties, poor portfolio management or lack of attention. Credit risk stands the largest source of risk facing banking institutions and for them to properly manage such risks means measuring the credit risks at portfolio levels to determine the amount of capital needed to hold as a cushion against extreme losses. In practice credit risk is measured by VaR, which is the quantity of the distribution of portfolio loss for a given confidence level. In 1988, the BCBS introduced a capital

measurement system commonly referred to as the Basel Capital Accord with a credit standard of 8% by the end of 1992. This requires banks to make 8% capital reserve on credit risks to create cushion for possible losses emanating from credit transactions. This rule became known as Basel I Accord. Basel II and III documents were released later as explained earlier.

The final Basel II Accord was released in June 2004. It is a new set of regulations on risk management for financial institutions and is based on three pillars: Pillar 1 consists of new minimum capital requirements. Pillar 2 enforces qualitative standards on risk management, while Pillar 3 requires risk management information disclosures, thus enforcing market discipline (BCBS, 2004). Basel III is a comprehensive set of reform measures, developed by the BCBS to strengthen the regulation, supervision and risk management of the banking sector. It was in direct response to the financial crisis and a way to strengthen the financial regulatory framework all over the world. It builds on the International Convergence of Capital Measurement and Capital Document in Basel II.

Regulatory Protections Against Bank Failures

Governments all over the world create two strategic safety routs for distressed banks which are aimed at cushioning the effects of bank failures. First, is making the Central Bank play its role as the lender of last resort, a major source of loss to depositors with high deposits in a failing bank. The second is the deposit insurance which comes to the picture to protect depositors' funds against potential losses when a bank becomes insolvent.

Bank Failure and Systemic Risk

A systemic risk in bank is the situation where the failure of a major bank affects the entire banking industry. This is possible as banks are linked to each other by the interbank operation which allows banks to borrow from themselves when a systemic risk occurs in banking system; creditors/depositors are attended to first before the shareholders.

In order to design public policies that prevent systemic risk in banks where the failure of one bank is transmitted to others leading to the disruption of the entire banking system, it is important to closely analyze the possible causes of each bank failure that could lead to systemic risk. This research however, examines some other causes of bank failures taking into consideration certain contemporary developments in Nigerian environment particularly and recent recession in the world's economy. These are captured under the following headings: lack of transparency/insider abuses, capital inadequacy, non-performing loans, (and other inherent banking risks) macroeconomic instability, critical gaps in regulatory framework, weaknesses in business environment and poor governance/weak management. The causes of systemic problem in the financial system are usually traced to individual bank failures that could have a ripple effect. Systemic risk occurs as a result of the interconnectivity of banks. It is through this chain like interconnectivity that financial shocks are transmitted from one bank to the other. This is why there is a call on banks to avail themselves of the collective initiatives put in place by BCBS and regulators to help in scaling down in both domestic and foreign currencies, the treat from interbank transfer and settlement risk. Two dimensions would

always be affected by the expected structural improvements, that is, length of time and size of exposures respectively. The elimination of any of the two would automatically dispose of the other.

Derivatives as natural extension of traditional risk intermediation is affected in a systemic risk situation as the other counter party's exposures. There is always a possible knock-on-effects when an obligor defaults on a due date, which would in a chain reaction affect other banks in meeting their obligations. In this case, payment, settlement and netting in banking operations are identical.

Until the world financial crisis in 2008, the issue of systemic risk or contagious effects resulting from bank failures had almost disappeared in developed countries (Schwartz, 2010). This is why the reintroduction of government regulations to protect the fragility of banks becomes necessary. The Central Banks interventions by bailing out banks means that the government or taxpayers capital replaces the shareholders bearing in mind the protection of depositors funds (Benston & Kaufman 1995). This situation as emphasized by Kane (1995) introduced severe principal-agent problem in the banking sector. The Federal Reserve in United States of America or any other Central Bank offsetting the impact of loss from the banking system creates additional problems in trying to save the banking system from systemic risks (Adeyemi 2010). The replacement of existing shareholders with public (taxpayers) fund in a failing bank is seen as injustice to the existing shareholders who never contributed to the bank's failure. This becomes a new poser to the Agency Theory as the management and Directors of banks as agents

unjustifiably denies the principals (shareholders) of their rights of ownership of the bank once the Central Bank takes over the Bank.

Summary

The emphasis laid by the BCBS on issues of risk management in banking operation shows the importance of the subject for which banks are expected to pay particular attention to it. This chapter started with a definition of the key concepts in the study defining what risk is, followed by explaining Risk Management system in banks. This was followed by the risk management structure in banks which explained the options of centralized and decentralized structure of risk management in banking operation. The concept of ERM in banking was also explained, confirming the urgency for banking institutions to adopt this concept as it gives opportunity to them for the management of the inherent risks in their operation holistically in line with the targets of the bank. The ERM concept in a bank creates the platform on which the Bow-Tie technique flows. The Bow-Tie technique was explained next, followed by how risk management culture could be created in banks where it was explained that banks should through an adoptable management system paying adoption on the risk appetite as one of the major determinants of performance.

The second segment of the literature review was an explanation of the five types of risk that are inherent in banking operation and identified five of such risks as credit risk, liquidity risk, marker risk, operational risk and solvency risk. This was followed by the third section that compared risk management and corporate governance and how they are related in banking operation. It was noted that both components are the common

factors responsible for past corporate failures. This was followed by the underlying causes of bank failures treated under the fourth section of this chapter. Here emphasis was laid on the managerial determinants and other operational causes.

Following this in the fifth section of this chapter was a brief history of banks failure in Nigeria, how the consolidation of banks was carried out in 2005 and 2009. The current major causes of recent bank failures in Nigeria in 2009 was given. This was followed by the suggested framework for banking reforms in Nigeria (2009-2012). The sixth section of the chapter looked at the banking regulation of the various risk. Here the Basel Accords I, II and III were reviewed; followed by the regulatory protections against bank failures where the government's safety nets put in place to cushion the shock of bank failures was reviewed. The two known components of the safety net are: the Central Bank acting as the lender of last resort providing emergency liquidity assistance to illiquid but solvent banks and the deposit insurance which steps in when a bank actually becomes insolvent and it becomes necessary to protect depositors' funds.

The last section of the chapter was an examination of the implications of bank failure and the systemic Risk and how the ripple effect on the entire banking system could be avoided. In all, the chapter used the Nigerian banking industry to demonstrate the importance of a strong prudential regulation and supervision, effective market discipline and strong leadership requirements to guarantee the survival of the banks. The chapter also helped to affirm the framework of the research, demonstrating the conceptual model called the SGM which is tested in an empirical study to determine the relationship between the four main constructs of the study: risk management, factors.

This created the platform for the methodology of the study which followed in chapter 3 of the dissertation.

Chapter 3: Research Method

Introduction

The study has five objectives.

1. To determine why there have been persistent bank failures in the Nigerian banking industry.
2. To know whether ineffective management of the inherent risks associated with banking operation, coupled with poor corporate governance and non-adherence to regulations, were the major factors.
3. To evaluate the inherent risks in banking operation and to identify techniques, such as the Bow-Tie Technique, under the ERM environment that could help to reduce bank losses and thus guarantee their survival.
4. To help in creating the required awareness in bank operators of the need to appropriately identify the inherent risks, put in place adequate measurement processes, evaluate and monitor them holistically, and to install proper controls by allotting capital properly to help create cushion against losses.
5. To determine the relationship between the main constructs of the study, that is, risk management, corporate governance, regulation, and bank performance.

In this chapter, the methodology adopted in the study is presented commencing with the review of the study design and its basic methodology. Both primary and secondary data were used. The ordinary least square (OLS) technique is used in

estimating the numerical values of model parameters/coefficients for the secondary data while the multiple linear regression model and correlation are used for the primary data in order to test the research hypothesis. This is followed by the sampling strategy, where the stratified sampling method—a probability sampling—is adopted. This matches the indicated hypothesis and answers the research questions adequately.

Following this is the review of the population of the study, indicating that 300 bankers in all were targeted. It also discusses the sampling frame, the statistical power where the proposed regression analysis is set at 0.80. For the primary data analysis, both the multiple regressions and correlation were used alongside the ANOVA to determine the relationships of the variables and to test the study's hypothesis. In testing the hypothesis, a chi-square was used for the first component in determining the major factors of bank failures, while the ANOVA was used for the second component, which examined whether there was a significant variation in the level of contribution to bank failures by the main constructs. Correlation and regression analyses were used for the third component, where the relationships between the main constructs were determined; chi-square was used equally for the fourth component determining whether there are other silent causes to bank failures. In the final analysis, multiple regression was used to confirm the extent of the relationships between the constructs. The result of the study confirm whether ineffective risk management procedures, poor corporate governance practices and nonadherence to regulations were the root causes of bank failures or to what extent they affect bank performance.

Research Design

The main design of this study flowed from the analysis of historical data on bank failures in Nigeria. The strategy was to obtain data relating to bank crises in Nigeria and group them to flow with the main variables of the study, that is, risk management, corporate governance and regulation and then to determine how they have been influencing bank performance (the dependent variable of the study). The sequence of the historical activities highlighted in the background information provided in Chapter 1 helped to provide the required data that was complemented by the survey strategy. Some of the empirical studies on the subject affirmed the root causes of the persistent bank failures in Nigeria. These topics are treated under the following two headings: (a) historical analysis of bank failures in Nigeria and (b) survey plan as complimentary to historic analysis.

Historical Analysis of Bank Failures in Nigeria

The 1980s and 1990s produced the highest number of bank failures since after the Great Depression worldwide as I explained in chapter 1. The annual failure of banks in both developed and developing countries had remained on the high side. Apart from the failed banks, about 10% of the surviving banks by statistics are weak and on the verge of collapse. The baffling evidence is that banks fail both during bad and good economic times. No doubt that there could be certain economic and monetary factors that contribute to bank failures, the fundamental causes could be traced to poor risk management culture, nonadherence to regulations and poor corporate governance culture. In considering the general economic downturns in a country, certain monetary policies and managerial

factors also play significant roles in bank failures. Regional/national economic performance could affect the health of banks; however, it does not fully explain why there are persistent bank failures all over the world especially in developing countries like Nigeria.

Most of the factors identified by all the authors earlier mentioned could be grouped under the four identified independent variables used in this study. Most of the institutional factors, managerial and operational factors covering general risk management, fraud dictation, and process management fall under the Risk Management Variable having VAR as proxy. Other identified factors like capital inadequacy and board factors fall under corporate governance with CAR as proxy. Lack of appropriate supervision of the banks and inadequate regulations could be grouped under regulation as an independent variable.

Survey Plan as Complementary Strategy

In view of the nature of the data, the composition of the population and the spread, the survey design is chosen to complement the historic data for this study. The target population is core professional bankers in the senior cadre especially those working in the Risk Department and other executives who have close interface with the Risk Department of the bank. I covered many of the senior executive management staff in the twenty-four operating banks in Nigeria, MD/CEOs of the banks, their Executive and Non Executive Directors, Executive management staff of the regulatory organizations such as CBN and the Nigerian Deposit Insurance Corporation (NDIC). Attention was given to those in the banking supervision of the regulatory organization. The population used from

the Nigerian banking industry was 250 bankers. Fifty of this population were the retired bankers and other consultants who have valuable experience in the Nigerian banking industry. The remaining 50 bankers came from bankers in United States and United Kingdom. This is because the study in examining why banks fail in Nigeria using United States and United Kingdom as benchmarks for the Nigerian banking industry.

The survey design was preferred because it is economical and allowed rapid turnaround speed in data collection procedure for the study. Considering the large population of 300 covered, 500 survey instruments were distributed in all to achieve the 300 target. The survey strategy had the advantage of achieving over 75% of the total population 500 in order to achieve the target of 300 which is the target population for the study. The survey was cross-sectional as data were collected from both bankers in Nigeria, United Kingdom and United States of America within a period of 1month (January 2013).

The form of data collected was through self-administered survey instrument supported by an Internet survey. A web page was opened and many bankers whose e-mail addresses were available were prompted to complete the survey instrument on line and returned them accordingly through the web-page or sent to the web file created. In view of bankers' attitude of not giving attention to survey instrument which were not in their actual line of business, the self-administered procedure was given more attention with adequate follow up. The indication was that 60% of the returned completed survey instruments came from the self-administered process while 40% came from the web-based online process.

The stratified sampling which is a probability sampling design was chosen for the study. It was used mainly to ensure that different groups of a population were represented adequately in the sample in order to increase the level of accuracy in estimating parameters. In the sampling method, the expected power of the proposed regression analysis was 0.80, while in survey research, the most common error remained non-response error. However, keeping the power at 0.6 using the G*Power would give a sample size of 300. The survey instrument used for the survey data collection was developed by myself to be able to cover the research questions, the hypothesis, the main variables and the purpose of the study. The research instrument was tested for reliability and validity. Questions were fielded in the survey instrument to reflect respondents' opinions on each of the variables. All the questions were measured by five Likert scales. The score range from 1 for *disagree* to 5 for *strongly agree* with each statement in the survey instrument.

The main variables in the study were: risk management, corporate governance, regulation and bank performance. These variables had cross-references with the research questions as they were all mentioned in the questions to know how they interface with each other and contributed to the persistent bank failures or survival. The questions asked in the survey instrument were focused mainly on the research questions with the aim of obtaining data that were measurable. These data were grouped in relation to the main constructs of the research. The primary data obtained through survey were applied to both the multiple regression and correlation analysis alongside the ANOVA scheme through the SPSS in analyzing the data to determine the relationship between the variables and to

the hypothesis of the study. I adopted the internal consistency reliability which was estimated from the consistency of all items in the sum scales denoted by the reliability coefficient. This survey used Cronbach's alpha, the model of internal consistency that was based on the average in term of correlation.

Method of Inquiry

Survey were the major instruments for collecting data during the study a sample of the survey instrument is attached as Appendix A after the references. The survey instruments were distributed to 500 bankers with the aim of having back about 300 on the whole. The expectation was to obtain 250 from Nigeria and 50 from Nigerian bankers working in banks in United Kingdom and United States. It was expected that many of the heads of risk management departments of the banks surveyed in Nigeria were among those that completed the survey instruments. The other people who completed the survey were the chief executive officers of the banks, Managers in banks, governor of CBN and top managers of CBN; MD/CEO of NDIC and other financial consultants in the banking industry. Key officers of Nigerian Institute of Bankers and other relevant bodies also completed the survey instruments. Majority of the people involved in the study in the regions were experienced bankers who assisted in collecting data from the bankers. The chief risk officer (CRO) of each of the banks was the anchor person and coordinator of the program with two other bank officers helping to follow up those who were supposed to complete the survey instrument in the bank. Most of the survey instruments were forwarded by e-mail to facilitate their completion and return. About 80% of those who

completed the survey were familiar with the BCBS rules on risk management while 20% were not.

Data Collection Strategy

In view of the fact that the research survey was targeting a specifically selected population of top level managers in Nigeria banks with reasonable experience on risk management, corporate governance and banking regulation, a combination of both web-based survey and direct distribution channels of the survey instruments for completion were used. The main collection strategy was the web-based program where a web page containing the survey instruments was designed for the bankers' completion. The direct mailing system complements the web-based program as physical follow up of the research instrument increased the success rate of data collection.

The e-mail addresses of the target group in each bank were obtained and mails were forwarded to them to check out the web-site and helped in completing the survey instruments and returned them accordingly. In addition, the survey instruments were forwarded to their e-mail boxes as an alternative. The web-based survey gave advantages of cost, speed and access over the traditional hard copy distribution.

The web-based survey program broadened the advantages of the internet research and is appropriate for this research. It still presents unparalleled breadth of opportunities for the collection of data from a target population of interest in a cost effective and resourceful manner. It helped to coordinate the participants in the research and directing them to an online site where they posted on a discussion board. The data obtained were transmitted through e-mail or data files maintained for the purpose of the research in a

web service. The other advantages of the web based program were (a) an increased accuracy, (b) efficiency of data entry and analysis, and (c) increased pool of study participants for improved external reliability.

Five hundred survey instruments were distributed in all to management staff of the twenty-four consolidated banks in Nigeria and the targeted bankers in the United States who are Nigerians. For the survey instruments obtained from United Kingdom and United States, my representatives in these countries followed them up to be sure that all the completed survey instruments were returned by the end of December 2013. While this was going on, some of the survey instruments were sent by e-mail to some of the bankers whose e-mail addresses were available to give them option of either completing the survey instrument electronically or returning the hard copies.

The secondary data from CBN, NDIC and SEC were collected from the data bases of CBN and NDIC where formal applications were made for the data. By the end of January 2014 all the expected data from the data bases were obtained ready for analysis. The CBN governor had directed that the Director of Banking Supervision in CBN should assist with all available information required in the research with the understanding that the outcome when published will be helpful to both CBN and the entire Nigerian banking industry.

Data Collection

The data collected for this study were closely related to the four research questions, the objectives of the study and more specifically to the indicated variables representing both the independent and dependent variables. The common dependent

variable for all the equations on the four components of the hypothesis is (ROE). For this study, four proxy variables were however assumed to represent the main constructs, that is, risk management, corporate governance, regulation and bank performance. VaR is the proxy for risk management while CAR is the proxy for corporate governance.

ROE is the proxy for bank performance

NPM is the proxy for external corporate governance (regulation)

Operational definition and measurement of the variables closely reviewed the attributes that helped to clearly define and measure the variables. For corporate governance there were five constructs to consider: shareholders' rights and responsibilities, corporate governance policies, corporate governance practices, disclosure policies and audit policies.

Risk management had three constructs: capital risks, diversification risk and reliability risk. In these constructs were the various risk factors which questions are fielded for in the survey instruments. For bank performance, there are three items covering the qualitative return on equity and return on asset of the banks for the last three years and comparing the performance to their respective benchmarks. The independent variable here was based on improvement of return on equity ROE in the last three years.

I adopted two ratios NPM for external corporate governance (regulation), and CRO as proxy variable for ERM adoption in a bank to assess the impact over the tradition risk management practice in banking operation which is usually reflected on the bank performance. Questions were designed in the survey instruments giving respondents opportunity to reflect their opinions on each of the variables. All the responses were

measured by five Likert scales. The score range from 1 for *disagree* to 5 for *strongly agree* with each statement in the survey instruments which is attached as Appendix A. I used three independent variables: risk management (with VaR as proxy), corporate governance practice (using CAR as proxy) and bank performance (using ROE as proxy).

Measurement and Operational Definition of Variables

The four constructs considered in this study were: risk management, corporate governance, regulation, and bank performance. It was important to determine the variables representing these main constructs in the study as proxies which could be regarded as the independent variables. The dependent variables linked to each of the independent variables could be measured operationally like the main four independent ones.

I used Value at Risk (VaR) as the proxy variable for Risk management as mentioned earlier which is equally the independent variable. The dependent variables are Non Performing Loan (NPL) and Business Risk (BR). The Value at Risk (VaR) was the ratio of value at risk of individual bank from where the mean VaR for all the Banks in Nigeria could be obtained. It is usually represented by 5% quarterly profit and loss measure.

According to Jorion (2001), VaR showed the worst loss over a target horizon with a given level of confidence. In order words, VaR represented the quintile of the projected distribution of gain and losses over the target horizon. Since α was the known confidence level, VaR corresponds to the 1 - α lower tail levels. In this study, 95% confidence level was adopted, meaning that VaR should exceed 5% of the total number of observations in

the distribution. VaR could equally be estimated by using the nine quarterly data of profits or losses of each bank in the last 2years.

Nonperforming Loan ratio was a ratio of non - performing loan to total loans. Through this ratio, it could be seen how managerial risk - taking behaviour relates to all the organization's resources. A higher NPL indicates that banks take more risk in their operations and investment. Central Bank of Nigeria in its rules insists that banks should maintain their NPL less than 5%. For this reason, this ratio could be a relevant proxy for both risk management and external good corporate governance.

Business risk (BR) could be determined by the standard deviation of return on asset using nine overlapping periods on quarterly basis. Return on Assets (ROA) could equally be used for overlapping data. CAR was used as proxy for corporate Governance and this is determined by capital divided by risk-weighted average assets. Capital here covers both main capital and secondary capital. CBN as a rule insists that banks should reserve a minimum level of CAR at least 8%. Larger CAR represents banks higher sensitivity forward public interest. According to Konishi and Yasuds (2004), the implementation of the capital adequacy requirement reduces risk taking of commercial banks. I also considered some financial ratio which relate to the CAR. Supriyatna (2006) developed model to obtain composite value of corporate governance based on bank category. Supriyatna used six dependent variables which are equally relevant in assessing corporate governance. They are adopted in this study as follows:

Capital Ratio (CR)

$$CR = \frac{LLP + Equity}{}$$

Total Loan. (2)

Cash Claim on Central Bank (CCC)

$$CCC = \frac{\text{Central Bank Account}}{\text{Total Deposits}} \quad (3)$$

Secondary Reserve Ratio (SRR):

$$SRR = \frac{\text{Marketable Security}}{\text{Total Deposits}} \quad (4)$$

Loan to Deposits Ratio (LDR)

Loan was represented by total loan in the balance sheet, while the deposits include demand deposits, time deposits, certificate of deposits issued, securities, loan capital and the likes.

$$LDR = \frac{\text{Total loan}}{\text{Total Deposits}} \quad (5)$$

Loan Loss Provisioning (LLP)

$$LLP = \frac{\text{Allowance for losses}}{\text{Total loans}} \quad (6)$$

6. Fixed Assets and Inventories to capital (FAI):

$$FAI = \frac{\text{Fixed Assets and Inventory}}{\text{Capital}} \quad (7)$$

ROE was the proxy for bank performance. I equally used the Net Profit margin (NPM) as an instrument variable in the bank performance equation therefore:

$$ROE = \frac{\text{Earnings}}{\text{Common Equity}} \quad (8)$$

$$NPM = \frac{\text{Net profit margin}}{\text{Operating Income}} \quad (9)$$

It is however important to restate the hypothesis of the study before proceeding to the data analysis method section. The Hypothesis:

H_0: There is no significant relationship between effective risk management, corporate governance, adherent to regulation, and bank performance in management of banks.

H_1: There is significant relationship between effective risk management, corporate governance, adherent to regulation, and bank performance in management of banks.

Embedded in this hypothesis were four fundamental issues seeking to be clarified in answer to the research questions. First, was to confirm whether ineffective risk management, poor corporate governance and nonadherence to regulations are the root causes of the persistent bank failures. Second, to know whether there is a significant variation in the level of contribution to bank performance or failure by the three other main variables (risk management, corporate governance and regulations). Third, to determine whether there are inter-relationships between the main constructs and fourth, was to know whether there are other silent causes to the persistent bank failures as the mention of root causes is suggestive of other silent causes.

Data Analysis Method

In the Linear Multiple Regression model adopted for the study, the SPSS generated tables and figures gave leads on the relationship between the output variable Y = ROE and the other dependent variables VaR, CAR and NPM. Note that:

ROE = Return on Equity (is the proxy independent variable for performance)

VaR = Value at Risk (is the proxy independent variable for Risk Management)

CAR = Net Capital at Risk ie Capital Adequacy Ratio (is the proxy variable for corporate governance)

NPM = Net Profit Margin is a proxy for regulation.

Note also that in regression, the standard equation is:

$$ROE = \beta_0 + \beta_1 VAR + \beta_2 NPM + \beta_3 CAR + \beta_4 CRO + \varepsilon \quad (10)$$

In the multiple Regression used in the study, the task was to find whether the independent variables correlated with the outcome (ROE) that is the proxy variable for performance, and to what extent they contribute to bank performance. The model summary table gave the summary output of the predictors while the coefficient table gave the fundamental information to commence the analysis based on the regression equation. The b-values showed the relationship between bank performance and each predictor variable where the value was positive, it could be said that there was a positive relationship between the predictor and the outcome; whereas a negative coefficient represents a negative relationship.

The rule remained that, if the value in the significant column was less than 0.05, then the predictor was making significant contribution to the model. The smaller the

significant value and the larger the value of *t*, then the greater the contribution of the predictor to the outcome. R^2 in the SPSS output gave the squared correlation between the observed value of ROE and the value of bank performance predicted by the model. It could equally predict the combined effects of two of the independent variables like efficient risk management and adherence to good corporate governance rules on bank performance.

The questions asked in the survey were focused on the research questions with the aim of obtaining Liker data which were ordinal data. This was why the scaling between 1 to 5 in the scores were converted into quantitative data with repressible functions. Responses on bank performance constituted the dependent variable, while the responses on general risk management, other factors to bank failure, variances and corporate governance constituted the independent variables. These two scales of variables were expressed in functional relationships and multiple linear regression models which parameters/coefficients were estimated, and evaluated to operationalize and test the research hypothesis. The OLS technique was used to estimate the numerical values of the model parameters/coefficients to obtain relevant statistics for further analysis and evaluation. The estimation was facilitated with the SPSS software for the generation of regression and correlation outputs. In other words, the SPSS was used in analyzing the data to determine the relationship between the variables and to test the hypothesis of the study. Specifically, in analyzing the data and testing the hypothesis, Chi-Square was used for the first component determining the root causes of bank failures and also used for the second component examining whether there was a significant variation in the level of

contribution to bank failures by the main constructs. Correlation and Regression analysis were used for the third component where the relationships between the main constructs were determined; while Spearman Chi-Square was used for the fourth component determining whether there were other silent causes to bank failures.

For the secondary data obtained from CBN data-bases, they were used to determine both the independent and dependent variables expressed in ratios. The coefficient parameter was estimated using the Friedman's ANOVA scheme or the OLS Technique. This technique helped in eliminating the econometric assumption problem. In view of the fact that the independent variables for corporate governance and risk management have been chosen using the Return on Equity as the dependent variable, a multiple linear regression model was used for the primary data as indicated earlier.

It is however important to note that the three independent variables were CAR as proxy for corporate governance, VaR as proxy for risk management and ROE as proxy for bank performance. The dependent variables were capital ratio (CR), Cash Claim on Central bank account (CCC), Secondary Reserved Ratio (SRR), Loan to Deposit Ratio (LDR), Loan Losses Provisioning (LLP), Fixed Asset and Inventory capital (FAI), Ownership Structure (OWN), Non-performing Loan (NPL), and Business Risk (BR).

Factor Analysis (Data Reduction)

In view of the fact that there were many items considered in each main construct, this study used factor analysis to reduce such items, accepted for bank performance item (BP). There were two main approaches to reducing the data in factor analysis. First was the score coefficient matrix. This approach covered all items variables in factor that were

usually weighted by the score coefficient. This reduces variance losses in the data. The second was the selection of a surrogate variable based on the highest factor loading for each factor. Where there was a high correlation between one item and another item in a particular factor, a surrogate variable as the representation of other items was more efficient than the use of all items in the factor. This approach unfortunately might reduce the data variance when the factors loading of other items were relatively low.

I used score factor and not the surrogate variable for further analysis as score factors of composite index were based on new factors, which had Eigen values of more than 1. The summary result of factor analysis for each construct was presented based on the survey instruments using principal component analysis and varimax rotation techniques to run the data reduction.

Validity and Reliability Test of the Instrument

The validity of the survey depended to what extend the questions fielded in the survey instruments measure what they intend to measure. The basic issues measured or scored were the variables. To be sure that this study is measuring the variables for which they were designed, the measurement procedure needs to be appropriate. The issue with validity of the measurement is centred on the nature of the variables studied. The importance of validity of measurement of an instrument is to guarantee the validity of the conclusion drawn after testing the hypotheses.

According to Frankfort-Nachmias and Nachmias (2008), "There are three basic types of validity test: content validity, empirical validity and construct validity. Each of them relates to a distinctive type of evidence and brings a unique value on the

instrument.” Content validity assures that the measurement instrument has taken care of all the attributes of the concept being measured. The Empirical Validity looks at the relationship between a measuring instrument and the measured outcomes. While the construct validity relates the measuring instrument to the general theoretical framework to be sure that the instrument is empirically tied to the concept they were employing.

This study in order to pick the advantages of each aspect of the three types of validity test, adopted the Pearson's correlation coefficient to test the items validity. I measured the relationship between each item and the total score of all items from the particular constructs. The equations below produced ratios which were used in the regression model.

CRO is the proxy variable for ERM and searching for statistically significant correlations with profitability, leverage and company size. Appropriate matching of the variables determines the correlation between ERM and performance.

Methodology and Scaling Application

Both primary and secondary data were used in the research. The OLS technique was used for the secondary data. The OLS technique was used for the secondary data and equally in estimating the numerical values of the secondary data. The obtained data in the primary data analysis were ranked between 1 and 5 as was demonstrated in the survey instruments. For the primary data analysis, both the multiple regressions and correlation were used alongside the ANOVA via the SPSS to determine the relationships of the variables and to test the hypothesis of the study. The reliability analysis procedure

calculated a number of commonly used measures of scale reliability and provided information about the relationship between individual items in the scale.

In the final analysis the survey model adopted was subjected to Cronbach alpha which is the mode of the internal consistency that is based on the coverage inter-items correlation. The intention was to use Cronbach's alpha of higher than 0.70. The expected result were suggest that all items have higher than minimum requirement of alpha (less than 0.60).

Secondary Data in the Methodology

The secondary data in this research were collected from Central Bank of Nigeria Data bases and quarterly banks' financial statements and annual returns to both CBN and Securities and Exchange Commission (SEC) for the period of analysis 2005-2012. The research used the data of the (24) consolidated and recapitalized banks including the eight that were tagged illiquid and were bailed out by Central Bank of Nigeria.

Validity Test for the Secondary Data

In view of the problem of inappropriate disclosure in the banking industry especially in a developing country like Nigeria which stemmed from the banks' overzealousness to meeting regulatory requirements in making returns to the supervisory agencies such as the CBN, the NDIC and SEC often indulged in giving falsified information of their operation. It was upon these faulty information that the supervisory Institutions based their data formation on the banks. This situation was most prevalent during the distressed period of banks in Nigeria. This in turn made the figures posted by these authorities suspect especially those between 1995-2004. The situation however,

improved when the CBN and the other supervisory Agencies stepped up the level of supervision and came up with various prudential regulations and reform strategies.

With an improved banking environment from 2009 to 2012 in Nigeria, the validity of the Data Bases provided by these Agencies improved and became reasonably authentic. For the purpose of this study, the 2010 figures are adopted as they are far more reliable than the previous years. This notwithstanding, the following Validity Tests on the secondary data were carried out.

Triangulation Process

There were three main organizations in Nigeria that separately collect information statutorily from the banks on quarterly and annual bases. They are: The Central Bank, the NDIC, and the SEC. The SEC is affected because almost all banks operating in Nigeria are quoted companies. They collect information differently from the operating banks from where they develop their data bases from where this study obtained secondary data used for the analysis of the variables. Their respective data bases were compared on the same information regarding the variables of interest to the study. The figures obtained are almost the same, but in all, those reported by the NDIC are most consistent and for comparison sake more straight forward. This is why most of the data used in 2010 came from the NDIC as could be seen in chapter four.

Forensic Accounting/audit of Bank by International Audit Firms

At the beginning of the current reform exercise of Nigerian banking industry in 2009 by CBN, the bank in conjunction with the NDIC injected over $2billion by engaging reputable international audit firms such as KPMG, Ernest Young, Price

Waterhouse Cooper, and Akintola Williams Deloitte to undertake review of the financials of Banks in Nigeria with the aim of producing accurate and reliable financial information and developing a more valid records of their operation. (CBN, 2011, Annual Report). This exercise is in form of forensic accounting/audits of the banks' figures. According to Bolgna and Linguist (1995), forensic accounting is defined as "the application of financial skills and investigative mentality to unresolved issues, conducted within the context of the rules of evidence."

The result of the exercise formed the basis for both NDIC and CBN published annual reports on the operation of the banks in 2010 & 2011. (IMF Report on Banking Reform in Nigeria, 2011). This exercise made nonsense the reports of the banks in 2008, and caused the declaration of eight of the operating banks as very weak and illiquid. Three of the eight banks were later acquired by three of the existing banks, two recapitalized, while three were fully taken over by CBN and recapitalized by the injection of 640 billion Naira or 4 billion dollars. The forensic exercise helped in generating data bases on banks in 2010 & 2011 which could be considered as valid and reliable (IMF Banking Reform Report, 2011).

The Acclaimed Banking Reform Exercise by IMF

The IMF team was involved in the banking reform exercise in Nigeria and at the end of the exercise adjudged it impressive and recommended the model to other developing nations of the world (IMF Banking Reform Report, 2011). The reforms became imperative as the new CBN Governor in 2009 exercised the bank's oversight function in line with the BCBS rule in Basel III document in 2009 to improve risk

management and corporate governance in banks and more importantly to strengthen banks' transparency and disclosures.

It was on the basis of the consultative documents that the Committee responded to the financial crisis which stood as part of the global initiatives to strengthen the financial regulatory system endorsed by the G20 leaders in 2009 (BCBS, 2009). As part of the principles to enhance corporate governance are the issues of Disclosure and transparency. The governor of CBN in his strategic moves to reform the banking industry laid emphasis on these issues and jointly examined the activities of the banks with NDIC for the generation of authenticated figures used for the data bases in 2010. (CBN Annual Report, 2010)

Cross-Checking Data From Independent Studies

This aspect reviewed reports from some Internationally Acclaimed Financial Rating Institution on Banks' Operation. Some of the rating companies such as Standard and Poor and Agusto & Co Limited carried out their independent studies on Nigerian banking industry to assess and reconfirm the reports from banks against those reported by the supervisory Agencies. Their reports although not giving exactly the same figures, but posted similar figures for 2010 and 2011. The comparisons in 2010 for example in this regard were almost the same, that is why the NDIC figures complemented by those of CBN were adopted (Ernest Young Report, 2011).

Checking Extreme Situations That Could Affect Data Collecting Agencies

One of this was whether some of the banks could influence some of these Agencies to accept certain falsified figures and returns to beef up their records. Since the

CBN came up with new rules on banking supervision strategies especially from 2010, the situation changed for the better. The sampling methods adopted by the data collectors were checked to be sure that they were not corrupted. The Forensic exercises by the international audit firms instituted a new template that is self-editing (CBN Annual Report, 2011).

The figure produced by the supervisory agencies such as CBN and NDIC were cross-checked especially as relating to the major variables of the study such as the Capital Adequacy Ratio (CAR) as the proxy of Corporate Governance, Value at Risk (VAR) representing Risk Management, Chief Risk Officer (CRO) as proxy for ERM being assessed by some internationally acclaimed financial experts on financial ratios. One of such is Supriyatna (2006) that developed model to obtain composite value of corporate governance based on bank category. Supriyatna uses six dependent variables which are relevant in assessing corporate governance.

When these ratios were cross checked by the figures posted by CBN and NDIC, the data obtained were almost similar. This is why the figures obtained from those supervisory Agencies were correct and valid for 2010 and 2011.

Test Validity With Primary Data Obtained by Survey

The figures obtained from the Primary data were used to cross check the data from CBN and NDIC on the main variables; CAR, VAR, CRO, and ROE. The pattern of the variables was similar, which is a confirmation that the figures are valid to a large extent. With the forgoing points in mind, the question was then whether the secondary data obtained represent what was supposed to be measured and how complete they were

and how accurate the data were? Were they really valid and reliable? and have these data ever been altered for any reason? Note that validity problem on secondary data could arise when the definitions of situation by the original data collector or organization did not match with that of the theoretical definition of the secondary data user. Also, validity issue can occur when a secondary data researcher develops a proxy variable that captures the construct using data from secondary source.

In checking the validity of the secondary data used, it was further considered to look into the definitions of particular constructs used and decides whether the scopes of the definitions are over lapping correctly with the known definition of such variables. It was also important to check the measurements and to decide whether they are measuring exactly what they were claiming to measure.

This study being a quantitative research, the primary intention was to test a theory - the square gap model and the main role of the researcher here remained deductive. In this light, the two important validity issue to consider were those relating to:

1. The construct validity
2. Content validity

Construct validity seeks agreement between concepts expressed in this study like the constructs and the specific measurement devices or procedures adopted in the research. In this case, this research looking at the constructs validity assesses how well the study converts the initial thoughts of the research into actual programs or research measures, and the extent to which the tests or scales sufficiently assess the theoretical construct as the original aim of the research.

While content validity problems referred to a situation where the items on a test actually test what the study was to test in the content, and also that the test was a representative sample of the research measures of the content. The components of the main constructs were in line with the outlines of the secondary data provided by the regulatory agencies. In all, the validity test assessed the overall suitability of the obtained data to the research questions and objectives looking at measurement validity and coverage. These were met by the data obtained from CBN and NDIC for 2010 and 2011. Also the evaluation of the exact suitability of the data for analysis needed to answer the research questions and to meet objective of the study. Specifically, the entire biases were reviewed.

In the validation of the secondary data, it was important to have in mind the relevant forms of validity. They were the face validity, criterion related validity and the content validity. By extension, the empirical validity and construct validity were considered. The face validity tests the quality of the indications that make it looked reasonable measure of the variables. The criterion related looked at the degree to which measures relate to external criterion, while the Content Validity referred to how much a measure covered the range of meanings included in the concept. The construct insist that research instrument must display construct validity while the empirical validity looked at the measuring instrument and the measured outcome.

Finally, a reliability issue in a quantitative study of this nature was viewed as a measurement error, which is an issue of variance. These could be an unobserved part in the events or situation coming as a result of measurement errors or inability to observe

through scientific methods. In this case of the obtained secondary figures, 2012 figures were adopted to avoid doubts as to the authenticity of the figures. In the process of obtaining the data, the internal consistency of the data generated were guaranteed by the independent audit firms that carried out the forensic audit exercise. The NDIC adopted a test - retest methods to guarantee the validity and also adopted the check the test ability method. They equally checked the instruments used and the sample provided in all cases. These helped to validate the data obtained.

Secondary Data Analysis Using the Regression Equation

A multiple regression model using the established regression equation was used in this study for the assessment of the secondary data obtainable from CBN and NDIC. In estimating the coefficient parameters, the OLS Technique is used. Based on the independent variables obtained on the main constructs, the regression equation model is used to confirm the results obtained through the primary data analysis. The regression equation earlier established is as follows:

$$ROE = \beta_0 + \beta_1 VAR + \beta_2 NPM + \beta_3 CAR + \varepsilon \quad (11)$$

By extension, the ERM model explained earlier could be incorporated into the regression equation taking note of the dependent variable which could equally affect performance.

CRO is the proxy variable for ERM and searching for statistically significant correlations with profitability, leverage and company size. The regression equation incorporating the CRO would be as follows:

$$ROE = \beta_0 + \beta_1 VAR + \beta_2 NPM + \beta_3 CAR + \beta_4 CRO + \varepsilon \quad (12)$$

The Population

The chosen population was a total of 300 professional bankers who are currently working in banking institutions in managerial positions and some consultants involved in training banks' staff on area of risk management and corporate governance. A majority of these bankers were those who have been exposed to credit transactions in the banks, who were aware of the Basel I, II, and III rules on risk management. The banking institutions covered in Nigeria were the surviving 24 banks, the CBN and the NDIC.

Two hundred fifty of these bankers were from Nigeria while 50 from United Kingdom and United States banking environment. In Nigeria, the participants were grouped into eight sampling units as follows: two each in Lagos and Abuja (the two biggest cities in Nigeria with the largest population of banks and their branches), one each in Port-Harcourt (in the South), Kaduna (in the North), Ibadan (in the West) and Enugu (in the East). In the United Kingdom and United States there were two units each; therefore having on the whole 12 sampling units covering the expected participants in the study. Each of the units had between five and 15 participants since the disproportionate stratified sample model was adopted. On the whole the total number of people in each stratum fluctuates within the population based on the research requirement.

The Sampling Frame

The frame had a population of 300 bankers, with 12 sampling units and three stages involving data collection, analysis and application. There existed a high degree of correspondence between the sampling frame and the sampling population. The accuracy of the sample depended therefore on the sampling frame as every aspect of the sample

design—the population covered the stages of sampling and the actual selection process—was influenced by the frame. According to Laish (1965), it is advisable “before selecting a sample to first evaluate the sampling frame for potential problems like incomplete frames, clusters of elements and blank foreign elements” (p. 51).

Statistical Power

The conventional statistical power recommended by the literature is 0.80, meaning that 80% chance of finding a statistically significant difference was expected (Sherperis, 2012).. Keeping the power at 0.80, the alpha level at 0.05, the effect size at 0.3 using the G*Power would gave a sample size of 132 and dividing by the response rate of 60% gave the required size of 220.

There were four research questions and one hypothesis in the study. These questions and hypothesis had been given earlier. The dependent variable for the hypothesis is ROE, while the independent variables are varied, ranging from the risk factors to basic parameters like ownership structure and economic factors.

Transformation of Ordinal Likert Data into Interval or Ratio Scale Data

The conversion of ordinal Likert data into interval or ratio scale data was not easy but the controversies surrounding the transformation could be justified when the Likert data obtained were first converted into continuous data for the purpose of the analysis conducted. The general rule remained that a wide range of scale be used and that responses should always be collapsed into condensed categories when appropriate for analysis.

Review of Some Researchers' Methodologies

According to Allen and Seaman (2012), the transformation of ordinal Likert data into interval data remains controversial in survey analyses. However, Likert scales remained a common rating format in surveys, that was why respondents rank quality from high to low or best to worst using five or seven level measurement.

The consensus amongst researchers was that statistician's group data collected from surveys into a hierarchy of four levels of measurement, nominal, ordinal, interval and ratio data. The difference in the hierarchy is in the degree of measurement. In nominal measurement, there is no numerical value for example, gender, race and diagnosis. Attributes were only named, in ordinal measurement, the attributes can be rank-ordered but the distance between the rankings do not have any meaning. A Likert scale of 5 to 1 (*strongly agree* to *strongly disagree*) is a good example of ordinal measurement (Trochim, 2000). The numbers 5 to 1 here only represents the order of the response and it is the ranked level that is used and no meaning is applied to the distance between the scores. In interval measurement the distance between the rankings have meaning and are equal in value. There was no true zero point here like in temperature and intelligence measures where zero reading means nothing. Ratio measurement has all of the characteristics of interval measurement, plus a true zero point. It stands the most sophisticated type of measurement such as in weight and length or even age as an important variable in a study.

Although the data analyses using nominal, interval and ratio data were straight forward and transparent, the analyses of ordinal data that relate to Likert were not. Some

Researchers also believed that the underlying reason for analyzing ordinal data as interval data could be explained by the central limit theorem which asserts that parametric statistical tests could be more powerful than nonparametric alternatives. This makes the interpretation of parametric tests easier than nonparametric test.

Allen and Seaman (2009) explained the importance of first examining the values of a data set in the findings of a survey and the objectives of the analysis to avoid misrepresentation in the transformation of ordinal data into interval data or into ratio data. In obtaining a Likert data, people were asked to indicate their degree of agreement, approval or disapproval, or believe to be true or false. The basic methodology was to include at least five response categories. The scale could be increased to seven by adding "very" to the top and bottom of the five-point scales. This could increase the scale's reliability. Fundamentally, Likert identified that there might be an underlying continuous variable whose value characterizes the respondents' opinions or attitude and this underlying variable is interval level at best. The fundamental rule in the transformation of ordinal Likert data is that the nonparametric procedures are more valid and more reliable than the parametric procedures (Mean & Standard Deviation) in the analysis of data. The non-parametric procedures were more appropriate in data analyses as they are distribution free methods as in "abulations, frequencies, contingency tables and chi-squared statistics.

The methodology presented by Wallis provided similar results as in the analysis of variance indicated above which are based on the ranks and not the means of the responses. In view of the fact that the scales are representative of an underlying

continuous measure, a fundamental recommendation is to analyze the ordinal data as interval data in a pilot scheme prior to gathering the continuous measure. Another way in which Likert scale could be used with interval is to measure the data and rank them as low, medium, and high. The interval had becomes an attribute of the data and not of the labels. Another important methodology that was used in analyzing Likert scales as interval values is when the sets of Likert items combined to form indexes (Allen & Seaman, 2012). The caveat here is that most researchers recommend that such combinations of scales should pass the Cronbach's alpha or the Kappa test of inter correlation and validity.

An alternative to continuous measure for scales was to use the continuous line or track bar especially in the medical field where pains were measured. For example in a paper survey to measure worst ever to best ever which gives a continuous interval measure. Most on-line surveys were carried out with track bars which are similar to those illustrated above. According to Jamesmartinn (2009), the factor analysis could be analyzed at the item level. Other notable methodologies given by different researchers are as follows. Because it is not easy to aggregate (multiple) ordinal scale variables, Researchers prefer to treat Likert scale items just like they are recorded using an interval scale (Kroemer, 2012). It is however wrong to simply aggregate over ranks because equidistance ensures a fair weighting of the different response categories. The view of many researchers is that if this type of aggregation takes place, a cluster analysis might be useful to derive a less biased result.

When data are not normally distributed and the measurements contain rank order information, computing the standard descriptive statistics (e.g. mean, standard deviation) is sometimes not the most informative way to summarize the data. (Hilton 2012). According to Hilton (2012), using the psychometrics example where the rated intensity of a stimulus (e.g. perceived brightness of a light) is often a logarithmic function of the actual intensity of the stimulus (brightness as measured in objective units of Lux). In this case, the sample mean rating (sum of ratings divided by the number of stimuli) is not an adequate summary of the average actual intensity of the stimuli.

According to Jackson (2009) "A Likert scale can be considered as a grouped form of a continuous scale, and the variable must be treated as if it were continuous for correlation analysis." Likert scales are clearly ordered category scales, as required for correlation work, and the debate along methodologists is whether they can be treated as equal interval scales. It makes no difference provided that data are distributed in a broadly symmetrical way along the scale.

Converting my Survey Data (Likert) Into Interval or Ratio Data

A fundamental methodology accepted by many researchers is that data obtained on Likert scale can be converted into scores on which correlation and regression can apply by creating a composite and/or subscale and summing item responses across participants (Jamesmartinn, 2009). Usually, a researcher uses Likert scale to measure abstract concepts by generating a number of statements and tries to obtain responses in 5 or 7 scale alternatives which have inherent order. The 5 or 7 responses are weighted in a decreasing order from 5 to 1. As a general rule, the use of wider scales is preferred

(Likert, 1932). In my survey, the responses are collapsed into condensed categories. A template of the scores is formulated based on the data obtained and imputed as data into the SPSS software to generate both the regression and correlation outputs for analysis.

The first step was to convert the Likert data into continuous data for the purposes of the analysis to be conducted. This will be at the item level as the scores are from 5 to 1, that is, *strongly agree* to *strongly disagree* as could be seen in the attached survey instrument. Although treating Likert data as continuous at the scale level tends to be easier but summating items creates more variability and more possible data points in order to make the data more continuous.(Allen & Seaman, 2009). This is confirmed by the Limit Theorem which indicates that scale/subscale scores are more normally distributed than their items constituents (CowboyBear, 2009).

The data collected for the study relate to the four research questions, the objectives of the study and more specifically to the indicated variables representing both the dependent and independent variables. These would be formulated into a continuous template based on the information from the survey to be imputed into the SPSS Software from where the entire output (regression and correlation) and the descriptive analysis would be generated. An example of how this is done is shown in the table below:

Table 1

Descriptive Analysis of Effective Risk Management Banks

Question	SA	A	PA	D	SD	Row
Could ineffective risk management in banks coupled with poor corporate governance practices and nonadherence to regulations are the root causes of persistent bank failures	202 (67.3%)	89 (29.7%)	6 (2%)	3 (1%)	0 (0%)	2

I used Table 1 above to illustrate that 202, representing 67.3% of the respondents strongly agree that ineffective risk management in banks coupled with poor corporate governance practices and nonadherence to regulations are the root causes for persistent bank failures, 89 (or 29.7%) agree, 6 (or 2%) partially agree, 3 (or 1%) disagree, while 0 % strongly disagree with the statement. Majority of the respondents strongly agree that Ineffective risk management in banks coupled with poor corporate governance practices and nonadherence to regulations are the root causes of persistent bank failures. This will be fully demonstrated in Chapter 4 giving both the regression and correlation outputs for analysis.

Limitations of the Use of Likert Data in Regression Models

The challenge faced in converting Likert data to interval data stands a major limitation in the analysis of the obtained data of the study. It may not be easy to convert Likert scale scores into continuous data per se, however, what happens actually is more like a matter of justifying treating them as continuous data for the purposes of the analysis being conducted. According to Allen and Seaman (2012), the transformation of

ordinal Likert data into interval data remains controversial in survey analyses. The general rule remains that, mean and standard deviation are invalid parameters for descriptive statistics whenever data are on ordinal scales as is usual with other parametric analyses which are based on the normal distribution. It is nonparametric procedures which are based on rank, median or range that are appropriate for analyzing these data as they are distribution free methods for example tabulations, frequencies, contingency table and chi-squared statistics. According to Likert (1932), “there might be an underlying continuous variable whose value characterise the respondents’ opinions or attitudes and this underlying variable is interval level at best” (p. 57).

In certain instances, the analyses could lead to misleading conclusions especially when data are analyzed using means where gaps are left that could lead to wrong mean averaging. This often gives a bit lower than average result which is different from the actual distribution of the responses (Allen & Seaman, 2012). In an extreme situation all the respondents would be placed at the ends of the scale, therefore arriving at a mean of “some” which is different from the actual responses (Allen & Seaman, 2009).

It is important to note that one of the fundamental reasons for developing some of the notable software like SPSS is to take care of the mentioned limitations in converting Likert data to intervals in a form to be used in a regression model. The limitation created by obtaining an age range between 40 to 60, 60 to 80 or 80 and above when age is an important variable in the study (weakens the data) is a limitation which a Ratio measurement could resolve, as the exact age will be required and given. It is always, advisable to use age as a ratio level measurement in such a study. It can always be

converted into an ordinal variable later. However if the data is collected as an ordinal variable, it might be difficult to convert to a ratio level as the real age was not given but was given as a range.

Summary

In this chapter, I started by explaining the research design chosen for the study which is a survey design. This was followed by the method of inquiry with the survey instrument as the main instrument of data collection. On the whole, 500 survey instruments were distributed to top bankers with the hope that 300 would be returned. The data collection strategy adopted in the study was a combination of both web-based survey and direct distribution channels of the survey instruments. The actual data collected for both the primary and secondary program are explained with focus on both the dependent independent variables of the study.

This was followed by the measurement and the operational definition of the variables. Closely following this was data analysis method, where the components of ROE, CAR and VaR are explained in the three applicable equations. Factor Analysis used for data reduction or elimination followed. The score matrix was preferred and used in reducing variable losses in the data. Closely following this is the validity and reliability test of the instrument to guarantee that the study is measuring the variables for which they are designed. Following this is the methodology and scaling application where it is confirmed that both the multiple regressions and correlation are used alongside the ANOVA for the primary data in determining the relationships of the variables and to test the hypothesis of the study. Specifically, in analyzing the data and testing the hypothesis,

Chi-Square was used for the first component determining the major factors of bank failures and also used for the second component examining whether there was a significant variation in the level of contribution to bank failures by the main constructs. Correlation and Regression analysis were used for the third component where the relationships between the main constructs were determined; while Spearman was used for the fourth component determining whether there were other silent factors to bank failures.

The survey method adopted was subjected to Cronbach's alpha to confirm the internal consistency of the item. For the secondary data, the Friedman's ANOVA is used. The study was based on a population of 300 participants who completed the survey instruments as professional bankers who currently worked in banking institutions especially those in managerial positions in risk management department. This chapter is the foundation and the basis for the analysis of the result of the study which is treated in Chapter 4.

Chapter 4: Data Analysis and Findings

Introduction

In analyzing the data, which were specifically to determine why there have been persistent bank failures in the Nigerian banking industry and to know whether ineffective management of the inherent risks associated with banking operation, poor corporate governance, and nonadherence to regulations were the root causes. With this in mind, it was important to restate that the four research questions formed the main components of the hypothesis of the study. The research questions are:

1. What are the major factors responsible for the consistent bank failures in Nigeria?
2. What are the levels of contributions of ineffective risk management in banking operation, poor corporate governance and non-adherence to bank regulations as major factors of persistent bank failure in Nigeria?
3. What is the relationship between risk management, corporate governance, regulation, and bank performance in the management of banks?
4. What other silent factors-other than ineffective risk management, poor corporate governance and nonadherence to regulations—contribute to the persistent bank failures?

These questions were embedded in the hypothesis of the study which stated that: There is significant relationship between effective risk management, corporate governance, adherent to regulation, and bank performance in management of banks.

In Chapter 4, I presented and analyzed the primary and secondary data of the study. Answers to the research questions will say whether to accept or reject the null hypothesis. The primary data were obtained from the 300 survey instruments returned (out of the 500 survey instruments sent out). First came analysis of the respondents' bio-data, followed by the descriptive analysis of the data on each of the main constructs which, using a Spearman Rank Correlation lead into the determination of the relationship between the key variables. The primary data were analyzed with multi-regression models along with ANOVA to determine the relationship between the variables and to test the hypothesis of the study. The analysis here would equally examine how much the variance in the dependent variable (bank performance) was affected by the independent variables: risk management, corporate governance and regulation. In the final analysis, it would be determined whether the alternate hypothesis (H_1) of the study should be accepted and if so, would the null hypothesis (H_0) be rejected. The results of the analysis would then be interpreted based on the regression and correlation results obtained from the study.

The secondary data were sourced mainly from the databases of CBN and the NDIC. The other information were obtained from literature on earlier empirical studies conducted on the Nigerian banking industry, especially those that examined the various causes of distresses witnessed in the industry at various times. I obtained Walden University IRB approval (number 10-23-13-0263407) to conduct this research and to collect data.

Analysis of the Primary Data

Out of the 500 survey instruments distributed, 300 were completed and returned from those confirmed as participants to the study. The survey using the survey instruments adopted a combination of both web based survey and direct distribution channels of the survey instruments. The main collection strategy is the web based program where a web page containing the survey instrument was designed for the participants to send in the completed survey instruments electronically. The direct mailing system complemented the web-based program as physical follow up of the survey instruments helped in facilitating the success rate of data collection. The participants selected in all the zones returning the completed forms on time helped in speeding up the process. These were in line with the design of the data collection strategy explained in chapter three. The data collected for the study relate to the four research questions, the objectives of the study and more specifically to the indicated variables representing both the dependent and independent variables. The raw data were formulated in a template based on the information from the survey instruments through the SPSS software from where the entire data output and the descriptive analysis were generated. The raw data template is attached as Appendix B.

Table 2

A Bio-Data of the Respondent

Age	Frequency	Percentage
31-40	47	15.7
41-50	186	62
51 & above	67	22.3
Gender		
Male	236	85.3
Female	44	14.7
Educational Qualification		
OND/NCE	3	1
B.Sc/HND	41	13.7
M.Sc/MBA	178	59.3
Ph.D	37	12.3
Others	41	13.7
Working Experience		
1-5	5	1.7
5-10	15	5
11-15	33	11
16-20	94	31.3
21-25	153	51
Occupational Status		
Manager	42	14
Snr Manager	51	17
AGM/DGM	90	30
ED/Director	59	19.7
MD/CEO	2	0.7
Others	56	18.7
Nationality		
Nigerian	300	100
Total	300	100

Analysis of Demographic data of Respondents

I used Table 2 to illustrate the personal characteristics of the sampled risk managers in Nigeria banks. The first section displays the age group (ratio scale) of the respondents. Responses show that majority of the respondents, 186 (or 62%) falls between age group 41- 50 years of age, 67 (or 22.3%) represents those that fall between age group 51 years and above, while also 47 (or 15.7%) represents those that fall between age group 31- 40 years of age.

Bank risk managers were asked on what their gender is (nominal scale). The responses are documented comprehensively in Table 1 above. A clear majority are male, 236 (or 85.3%), while female are 44 (or 14.7%). The relatively large number of male risk managers in Nigeria banks is not unexpected and is a pointer to the dominance of male practitioners in the banking sector.

The section is directed to risk managers in line with their highest level of education (nominal scale used in measurement). The responses show that majority of the respondents, 178 (or 59.3%) represents those that have M.sc/MBA qualification as their highest level of education, 41 (or 13.7%) have B.Sc./HND qualification, 41 (or 13.7%) have professional and other educational qualifications, 37 (or 12.3%) have a Ph.D. qualification, while three (or 1%) have OND/NCE degree .Given this outcome, one may infer that most of the respondents are qualified and know the importance of research and can be relied on to give reliable information. The fact that most of the respondents have M.Sc./MBA degree could be a pointer to the need for advanced training placed on respondents by the demands of the discipline.

Questions were directed at risk managers' experience (interval/ratio scale of measurement). Majority, 153 (or 51%) have experience of over 21 years, followed by 94 (or 31.3%) with experience of 16 to 20 years. 33 (or 11%) have 11 to 15 years of experience, 15 (or 5%) have 5 to 10 years of experience while only 5 (or 1.7%) have an experience of less than 5 years. The above, therefore, shows that most of the respondents are experienced and can be relied upon to give reliable data on the study.

The results show that all respondents are in the top positions. Senior managers have overall responsibility for main elements of banks (Rees, 1998). AGM/DGM have highest respondents of 90 (or 30%), ED/Director 59 (or 19.7%), other categories of occupational status 56 (or 18.7%), Senior Manage 51 (or 17%), manager 42 (or 14%) while MD/CEO two (or 0.7%). This is also confirmed from the information supplied in the section that focused on the personal details of the risk managers. They bear titles such as branch head of operation, director, head of RM, head of administration, managing director, managing partner, head project and RM. All the respondents that participated in this study are Nigerians with 10% of them based in UK and United States.

Table 3

General Risk Management Issues

	Strongly Agree (SA)	Agree (A)	Partially Agree (PA)	Disagree (D)	Strongly disagree (SD)	Mean	Standard Deviation	Rank
Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and strategy for maintaining their capital levels	209 (69.7)	88 (29.3)	3 (1%)	0 (0%)	0 (0%)	4.68	0.48	1
banks paying attention to the inherent risks in their operation and knowing how these risks are identified, measured, analyzed and controlled on ERM basis could help in enhancing banks' performance	207 (69%)	91 (30.3%)	2 (.7%)	0 (0%)	0 (0%)	4.67	0.50	2
Inherent risk banks face in their operation could be grouped into: Credit risk, liquidity risk, market risk, operational risk and solvency risk	220 (73.3%)	57 (19%)	21 (7%)	2 (0.2%)	0 (0%)	4.65	0.63	3
Ineffective risk management in banks coupled with poor corporate governance practices and nonadherence to regulations are the root causes persistent bank failure	202 (67.3%)	89 (29.7%)	6 (2%)	3 (1%)	0 (0%)	4.63	0.57	4

Table continue

Credit risk still stands the largest source of risk facing banking institutions and for them at portfolio level to determine the amount of capital needed to hold a cushion against extreme losses	162 (54%)	131 (43.7%)	7 (2.3%)	0 (0%)	0 (0%)	4.51	0.54	
The BCBS capital measurement systems captured in Basel I and II and strengthened in Basel III helped banks in reserving capital against the risk they bear which ultimately stepped down rate of failure	74 (24.7%)	167 (55.7%)	57 (19%)	2 (.7%)	0 (0%)	4.04	0.68	6
Capital inadequacy of banks which is usually worsened by the huge losses suffered by banks in the past years could be a major cause of the persistent bank failures	100 (33.3%)	120 (40%)	69 (23%)	8 (2.7%)	3 (1%)	4.02	0.87	7
The Basel committee on banking supervision (BCBS) formulating broad supervisory and guidelines, recommendations and best practices on issues of risk management helps in reducing the rate of bank failures all over the world	64 (21.3%)	156 (52%)	75 (25%)	5 (21.3%)	0 (0%)	3.93	0.72	8

Many nations have experienced bank failures with very high costs which can lead to systemic risks. The causes of bank failure are numerous, in theory, and include regulation of banking activities such as forbearance; asymmetric information leading to a moral hazard problem and connected lending. The history of banking system in Nigerian has been inundated with many problems which resulted to distress. I used Table 3 to confirm that majority of the respondents agreed that banks should have a process for assessing their overall capital adequacy in relation to their risk profile and strategy for maintaining their capital levels (69.7% and 29.3% *strongly agreed and agreed* respectively; the mean score was 4.68).

The appropriate level of capital for an individual bank cannot be determined solely through the application of a mathematical formula or wholly quantitative criteria. In this regard, the regulatory minimum capital ratios are standards that address only a subset of risks faced by banks. Therefore, a bank should maintain capital well above regulatory minimum capital ratios, especially during expansionary periods when the economy may be growing robustly and bank earnings are strong but the inherent risks in a bank's operations and balance sheet may be increasing. Banks paying attention to the inherent risks in their operation and knowing how these risks are identified, measured, analyzed and controlled on ERM basis help in enhancing banks' performance. In this regard, (69% and 30.3% strongly agreed and agreed, mean score: 4.67). Recent trends in corporate reporting and governance everywhere have increased the importance of risk management in business enterprises. Carey and Turnbull (2001), for example, depicted risk as an integral part of sound business management. Others call attention to the rise

and rise of risk management by arguing that “with their specific skills…risk managers can more easily identify relevant potential risk and can give focused advice on controlling them to line managers as well as to chief executives” (Butterworth, 2001, p. 22). Accordingly, the emerging notion of ERM operates with a wider scope. Moving beyond an initial financial risk agenda, it concerns itself with strategic and operational issues.

Inherent risk banks face in their operation could be grouped into: Credit risk, liquidity risk, market risk, operational risk and solvency risk (73.3% strongly agreed and 19% agreed, mean score: 4.65). Cade (1999) found that inherent risks that Banks face in their operation could be grouped into five: Credit Risk, Liquidity Risk, Market Risk, Operational Risk and Solvency Risk. Ineffective risk management in banks coupled with poor corporate governance practices and nonadherence to regulations are the root causes of persistent bank failure (67.3% strongly agreed and 29.7% agreed, mean score: 4.63). The baffling evidence is that banks fail both during bad and good economic times. No doubt that there could be certain economic and monetary factors that contribute to bank failures, the fundamental causes could be traced to poor risk management culture, nonadherence to regulations and poor corporate governance culture. Align corporate activities and behavior with the expectation that the bank will operate in a safe and sound manner, with integrity in compliance with applicable laws and regulations. The noted bank failures are traced to poor risk management and corporate governance (Manch et al., 2010). Corporate governance and risk management are interrelated and interdependent (Quon, Zeghal, &Maingot, 2012). The stability and improvement of bank performance

are highly dependent on effective role of risk management and corporate governance components (Manab et al., 2010; Sobil & Reding, 2004).

Responses also showed that the respondents strongly agreed to the statements that credit risk still stands the largest source of risk facing banking institutions (54% strongly agreed and 43.7% agreed, mean score: 4.51). The BCBS capital measurement systems captured in Basel I and II and strengthened in Basel III helped banks in reserving capital against the risk they bear which ultimately stepped down rate of failure (24.7% strongly agreed and 55.7% agreed, mean score: 4.04) to the statements presented in table 4.2. According to standard economic theory, managers of value maximizing firms ought to maximize expected profit without regard to the variability around its expected value. Capital inadequacy of banks could also be a major cause of the persistent bank failures (33.3% and 40% strongly agreed and agreed, mean score: 4.02). Majority of the respondents agreed that the BCBS broad supervisory and guidelines helped in reducing the rate of bank failures all over the world especially in developing counties such as Nigeria (21.3% strongly agreed and 52% agreed, mean score: 3.93).

It is useful for all stakeholders, that is, managers, depositors, borrowers and regulators in the financial sector to know what causes a bank failure, in order to help prevent the failures. The issues here concern managers and external regulators particularly because most managers are often dismissed when there are troubles in banks and regulators on the other hands are blamed when banks eventually fail. It is also very important for other stakeholders to understand the causes of bank failures, in order for them to help in avoiding such. It should also be noted that the social costs of the failure of

a bank can be higher than the costs incurred by a failed non banking institution; every bank customer would be at risks when the institution fails, even if there is no systemic impact. This is why all the stakeholders in a banking institution should be at alert to ensure that it does not fail.

Table 4

Analysis of Corporate Governance and Banking Regulation

	Strongly Agree (SA)	Agree (A)	Partially Agree (PA)	Disagree (D)	Strongly Disagree (SD)	Mean	Standard Deviation	Rank
In Nigeria, as a developing economy, the issues relating to strong prudential and supervision, effective market discipline and strong leadership covering corporate governance and management are critical for the stability of the financial system	268 (89.3%)	32 (10.7%)	0 (0%)	0 (0%)	0 (0%)	4.89	0.30	1
Critical gaps in regulatory and supervisory framework of a financial system could escalate incidents of banks failures	202 (67.3%)	98 (32.7%)	0 (0%)	0 (0%)	0 (0%)	4.67	0.46	2
The inability of directors of Banks to implement various oversight functions could be a major cause of bank failures	156 (52%)	116 (38.7%)	28 (9.3%)	0 (0%)	0 (0%)	4.42	0.65	3
Uneven supervision of banks and inadequate enforcement of the available rules worsened the problem of the banking crisis in Nigeria	113 (37.7%)	133 (44.3%)	50 (16.7%)	4 (1.3%)	0 (0%)	4.18	0.75	4
Introduction of a macro-prudential approach to banking regulations definitely would help banks take proactive measures in the management of risks associated with monetary operations	70 (23.3%)	160 (53.3%)	67 (22.3%)	3 (1%)	0 (0%)	3.99	0.70	5
Return on Equity (ROE) which is taken in this study as the Dependent Variable could be determined by the Value at Risk (VaR), Net Profit Margin (NPM) and Capital Adequacy Ratio (CAR)	45 (15%)	211 (70.3%)	37 (12.3%)	7 (2.3%)	0 (0%)	3.98	0.60	6
Governments, the world over, usually put in place two safety nets to cushion the shock of bank failures, first, the Central Bank acting as the lender of last resort; second, the Deposit Insurance when a bank actually fails. The bailout appears socially justifiable on tax papers but not on shareholders	68 (22.7%)	143 (47.7%)	76 (25.3%)	13 (4.3%)	0 (0%)	3.88	0.80	7

Table continue

Lack of co-ordination among regulators in Nigeria and incomplete or non comprehensive regulations on the critical causes of bank crises often lead to actual failures of banks	56 (18.7%)	104 (54.7%)	58 (19.3%)	22 (7.3%)	0 (0%)	3.84	0.80	8
Ownership structure especially where the concentration is significant remains a key determinant of good corporate governance	91 (30.3%)	120 (40%)	20 (6.7%)	59 (19.7%)	10 (3.3%)	3.74	1.18	9
Fraud and insider abuse contribute up to 35% of bank failures all over the world especially in a developing countries like Nigeria	70 (23.3%)	91 (30.3%)	130 (43.3%)	6 (2%)	3 (1%)	3.73	0.87	10
Capital Adequacy Ratio (CAR) as a proxy for Corporate Governance could be determined by Capital Ratio (CR), Cash Claim on Central Bank (CCC), Secondary Reserve Ratio (SRR), Loan Loss Provisioning (LLP), Fixed Asset and Inventory (FAI) and Ownership Structure (OWN)	42 (14%)	111 (37%)	118 (39.3%)	29 (9.7%)	0 (0%)	3.55	0.85	11
Nigeria Bank Regulators and Supervisors did not appropriately follow the regulatory framework of Basel Committee on Bank Supervision (BCBS) and were not proactive enough	32 (10.7%)	127 (42.3%)	113 (37.7%)	23 (7.7%)	5 (1.7%)	3.52	0.84	12
Corporate Governance practices especially the adequate functioning of Board Committees like Audit Committee, Compensation, Nomination, Compliance, Risk Management, Executive and Insurance Committees are not strictly adhered to by Nigerian Banks	24 (8%)	51 (17%)	107 (35.7%)	100 (33.3%)	18 (6%)	2.87	1.02	13
Nigerian banks seem not to be complying appropriate with the disclosure policies and practices expected of banks the world over especially as required in the annual report covering issues risk management system, related partly transactions etc	21 (7%)	43 (14.3%)	70 (23.3%)	140 (46.7%)	26 (8.7%)	2.64	1.05	14

I used Table 4 above to confirm that the top four factors in Nigeria as a developing economy are: the issues relating to strong prudential regulation and supervision, effective market discipline and strong leadership covering corporate governance and management as critical for the stability of the financial system (89.3% and 10.7% strongly agreed and agreed, mean score: 4.89). Critical gaps in regulatory and supervisory framework of a financial system could escalate incidents of banks failures (67.3% and 32.7% strongly agreed and agreed, mean score: 4.67). The inability of directors of Banks to implement various oversight functions could be a major cause of bank failures (52% and 38.7% strongly agreed and agreed, mean score: 4.42) and uneven supervision of banks and inadequate enforcement of the available rules worsened the problem of the banking crisis in Nigeria (23.3% and 53.3% strongly agreed and agreed, mean score: 4.18).

Table 5

A Descriptive Analysis of Risk Management

	SA	A	PA	D	SD	Mean	S.D	Ranks
There is a positive relationship between efficient risk management, adequate corporate governance, adherence to regulations and effective bank performance in banking operation	238 (79.3%)	55 (18.3%)	7 (2.3%)	0 (0%)	0 (0%)	4.77	0.47	1
Fundamental parameter such as efficient operating structure, dynamic ownership structure and focused management could enhance risk management in banks	211 (70.3%)	79 (26.3%)	10 (3.3%)	0 (0%)	0 (0%)	4.67	0.53	2
Adoption of Enterprise Risk Management concept by banks would increase their performance and guarantee their survival	143 (47.7%)	136 (45.3%)	21 (7%)	0 (0%)	0 (0%)	4.40	0.61	3
Inter-relationship between risk management and bank performance explains the trade-off between risk and return which is indicates that when banks manage their risks better, they will be able to enhance their performance	138 (46%)	150 (50%)	6 (2%)	3 (1%)	3 (1%)	4.39	0.67	4
Adequate capitalization of banks plays very important role in cushioning bank losses resulting from poor management of the inherent risks in banks	167 (55.7%)	86 (28.7%)	30 (10%)	17 (5.7%)	0 (0%)	4.34	0.87	5
Enterprise Risk Management culture in a bank creates the platform on which a contemporary risk management technique can flow	84 (28%)	204 (69%)	9 (3%)	0 (0%)	0 (0%)	4.25	0.49	6
Poor macro economic situation in a country could escalate credit risk exposure to banks, thus confirming that credit risk usually becomes boom and very high in adverse economy	73 (24.3%)	204 (68%)	23 (7.7%)	0 (0%)	0 (0%)	4.16	0.54	7
Ownership structure, leverage and size of a bank would affect the Enterprise Risk Management application/performance of any bank	62 (20.7%)	143 (47.7%)	80 (26.7%)	15 (5%)	0 (0%)	3.84	0.80	8

I used Table 5 above to illustrate the top five other risk factors and the relationships between the constructs as; there is positive relationship between efficient risk management, adequate corporate governance, adherence to regulations and bank performance in banking operation (79.3% strongly agreed and 18.3% agreed). Fundamental parameter such as efficient operating structure, dynamic ownership

structure and focused management could enhance risk management in banks (70.3% and 26.3% strongly agreed and agreed). Adoption of Enterprise Risk Management concept by banks would increase their performance and guarantee their survival (47.7% strongly agreed and 45.3% agreed). The inter-relationship between risk management and bank performance explains the trade-off between risk and return which is an indication that when banks manage their risks better, they will be able to enhance their performance (46% strongly agreed and 50% agreed). Adequate capitalization of banks play very important role in cushioning bank losses resulting from poor management of the inherent risks in banks (55.7% strongly agreed and 28.7% agreed).

The main role of bank managers is to serve shareholders' interest, which is to maximize return on shareholders' investment (bank performance). The role of bank managers, as representing bank owners' interest, is to press the bank to take risk higher than is socially expected, which is in line with the higher shareholders' required rate of return. Effective corporate governance practices are essential in achieving and maintaining public trust and confidence in the banking system, which are critical to the proper functioning of the banking sector and economy as a whole. Poor corporate governance may contribute to bank failures, which can pose significant public costs and consequences due to their potential impact on any applicable deposit insurance systems and the possibility of broader macroeconomic implications, such as contagion risk and impact on payment systems.

Table 6

Variance in the Contribution of Each of the Four Major Constructs to Bank Failures

	SA	A	PA	D	SD	Mean	S.D	Rank
A significant failure of each of the three major factors at the same time in a bank would lead to financial distress of the bank	236 (78.7%)	56 (18.7%)	8 (2.7%)	0 (0%)	0 (0%)	4.76	0.48	1
There is a positive correlation between risk management , corporate governance, regulation and bank performance in the management of banks	136 (45.3%)	159 (53%)	5 1.7%)	0 (0%)	0 (0%)	4.43	0.52	2
It is possible that a significant of one of the major factors could lead to financial distress in a bank that may cause its failure	97 (32.3%)	189 (63%)	11 (3.7%)	3 (1%)	0 (0%)	4.25	0.62	3
There appear to be significant variation in the level of contribution to bank's failure by ineffective risk management, poor corporate governance and nonadherence to regulation	60 (20%)	150 (50%)	42 (14%)	39 (13%)	9 (3%)	3.71	1.02	4
There is no significant difference in factors causing bank failures in developed and developing economies of the world since banking rules are the same all over	23 (7.7%)	111 (37%)	66 (22%)	49 (16.3%)	51 (17%)	3.02	1.23	5

The Nigerian banking industry recorded a severe setback in the last decade resulting to high distress in the system. Ineffective risk management, poor corporate governance and nonadherence to regulation were identified as the major factors in virtually all known instances of bank distresses in the country. Table 6 above shows that the top three are:

1. A significant failure of each of the three major factors such as ineffective risk management, poor corporate governance and nonadherence to regulation (78.7% and 18.7% strongly agreed and agreed).
2. There is also a positive correlation between risk management, corporate governance, regulation and bank performance in the management of banks. As relationship between risk management and corporate governance is 0.644**, risk management and bank regulation is 0.401**, risk management and bank performance is 0.623**, relationship between corporate governance and banking regulation is 0.522**, corporate governance and bank performance is 0.701**, bank regulation and bank performance is 0.497**.
3. It is equally possible that a significant disruption in each of the major factors could lead to financial distress in a bank that may cause its failure (32.3% and 63% strongly agreed and agreed). Bollard (2003) noted that risk management appears to be at the heart of most contemporary assessment of corporate governance themes and that banks face a wide range of complex risks in their day-to-day business, including risks

relating to credit, liquidity exposure, concentration, interest rates, exchange rates, settlement, and internal operations.

Null Hypothesis: There are no significant variation in the level of contribution to bank's failure by ineffective risk management, poor corporate governance, and nonadherence to regulation.

Alternative Hypothesis: There are significant variation in the level of contribution to bank's failure by ineffective risk management, poor corporate governance, and nonadherence to regulation.

The above hypothesis was tested by applying the Chi-Square test for independence to variables reported in Table 6. The result is reported in Table 7

Table 7

Chi-square Test Statistics on Contribution Variance of Independent Variables to Bank Failures

Variable	***N***	***DF***	**Level of Significance**	**χ^2 Cal**	**χ^2 Critical**	**Remark**
There appear to be significant variation in the level of contribution to bank's failure by ineffective risk management, poor corporate governance, and nonadherence to regulation	300	16	0.05	191.100	26.295	$H_{I\ Accepted}$

P< 0.05, *df* (5-1) (5-1)

Research Question 2

There appear to be significant variation in the level of contribution to banks' failures by ineffective risk management, poor corporate governance, and nonadherence to regulation

I used Table 7 to illustrate the results of the Chi-square analysis, and it was found that the Chi-square calculated χ^2_{cal} value of 191.100 is greater than Chi-square tabulated χ^2_{tab} value of 26.295 at 16 degree of freedom and significant level of 0.05. Based on this, the null research hypothesis where I indicated that "There are no significant variation in the level of contribution to banks' failures by ineffective risk management, poor corporate governance, and nonadherence to regulation" is rejected while the alternative hypothesis where I indicated that " There are significant variation in the level of contribution to banks' failures by ineffective risk management, poor corporate governance, and nonadherence to regulation" is thus accepted.

Research Question 3

Null Hypothesis(H_0): There is no significant relationship between effective risk management, corporate governance, adherent to regulation, and bank performance in management of banks.

Alternative Hypothesis (H_1): There is significant relationship between effective risk management, corporate governance, adherent to regulation, and bank performance in management of banks.

Embedded in this hypothesis were four fundamental issues seeking to be clarified in answer to the research questions. First, was to confirm whether ineffective risk

management, poor corporate governance and non-adherence to regulations were the major factors responsible for the persistent bank failures.

Second, to know whether there was a significant variation in the level of contribution to bank performance or failure by the three main variables (risk management, corporate governance and regulations). Third, to determine whether there are inter- relationships between the main constructs, and fourth, was to know whether there were other silent factors contributing to the persistent bank failures..

In Research Question 3, regression and correlation analysis were used in determining the relationship between the variables. It was confirmed that there was a significant relationship between the independent variables and the dependent variable , which implies that any increase or a positive change on any of the independent variables will result to an increase in bank performance. In other words, the level of effective risk management in a bank, good corporate governance, the appointment of Chief Risk Officer and adherence to regulation have effect on bank performance.

I used Table 8 to illustrate the correlation matrix of the relationship between risk management, corporate governance, regulation and bank performance in the management of banks while I used Table 9 as a model summary of the regression analysis. In Table 10 I illustrated the ANOVA regression output, while in Table 11, I showed the coefficient report. In Table 12 on the other hand, I showed the partial correlation on the other factors.

Table 8

Correlation Matrix of Relationship Between Risk Management, Corporate Governance, Regulation and Bank Performance in the Management of Banks

	GRM	CG	BR	BP
General Risk Management	1			
Corporate Governance	0.644**	1		
Banking Regulation	0.401**	0.522**	1	
Bank Performance	0.623**	0.701**	0.497**	1

Correlation is significant at P < 0.01

The correlation matrix above shows the relationship between risk management, corporate governance, regulation and bank performance in the management of banks. The relationship between risk management and corporate governance is 0.644, risk management and bank regulation is 0.401, risk management and bank performance is 0.623, relationship between corporate governance and banking regulation is 0.522, corporate governance and bank performance is 0.701, bank regulation and bank performance is 0.497. This shows that there is significant relationship between risk management, corporate governance, regulation and bank performance in the management of banks.

Table 9

Model Summary of Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.748[a]	.559	.555	3.939	1.320

a. Predictors: (Constant), OFCBF Other Factors Contributing to Bank Failure, Variance, Variance, General Risk Management Issue (GRMI), Corporate Governance and Banking Regulations (CGBR)
b. Dependent Variable: Risk Management, Corporate Governance, Regulation, & Bank Performance (RMCGRBP).

Table 10

ANOVA Regression Output

Model		Sum of Squares	*Df*	Mean Square	*F*	Sig.
1	Regression	5830.653	3	1945.551	125.239	.000[a]
	Residual	4593.544	296	15.519		
	Total	10424,197	299			

a. Predictors: (Constant), General Risk Management Issues (GRMI), Corporate Governance and Banking Regulations (GRMI).
b. Dependent Variable: Bank Performance (BP).

Table 11

Coefficient Report

	B	*SE β*	*B*	*T*	*Pvalue*
(Constant)	14.023	.199		4.737	0.000
GRM1	.382	.056	.333	6.264	0.000
CGBR	.494	.048	.145	2.719	0.007
BR	.308	.038	.166	3.236	0.001

$F(3,296 = 125.239, P<0.01$

Table 12

Correlation on the Four Main Constructs

Correlations

		RMCGRBP Risk Management, Corporate Governance, Regulation & Bank Performance	GRMI General Risk Managment Issues	CGBR Corporate Governance and Banking Regulations	Variance Variance	OFCBF Other Factors Contributing to Bank Failure
RMCGRBP Risk Management, Corpora Governance, Regulatic & Bank Performance	Pearson Correlatio	1	.620**	.536**	.514**	.543**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	300	300	300	300	300
GRMI General Risk Managment Issues	Pearson Correlatio	.620**	1	.546**	.527**	.460**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	300	300	300	300	300
CGBR Corporate Governance and Banking Regulations	Pearson Correlatio	.536**	.546**	1	.535**	.457**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	300	300	300	300	300
Variance Variance	Pearson Correlatio	.514**	.527**	.535**	1	.362**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	300	300	300	300	300
OFCBF Other Factors Contributing to Bank Failure	Pearson Correlatio	.543**	.460**	.457**	.362**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	300	300	300	300	300

**. Correlation is significant at the 0.01 level (2-tailed).

Table 13

Partial Correlations on Other Factors

Control Variables			OFERMGM Other Factors and Enterprise Risk Management	BPGM Bank Performance
RMGM General Risk Management & CGGM Corporate Governance & BRGM Bank Regulation	OFERMGM Other Factors and Enterprise Risk Management	Correlation	1.000	.310
		Significance (2-tailed)	.	.000
		Df	0	297
	BPGM Bank Performance	Correlation	.310	1.000
		Significance (2-tailed)	.000	.
		Df	297	0

In a linear multiple regression of this nature, the task remains to find the linear combination of the predictors that correlate maximally with the outcome variable (ROE). Based on the above SPSS tables, the Model Summary table gives the summary of the output of the predictors while the coefficient table gives the fundamental information to commence the analysis based on the regression equation.

The B-values 0.945 showed the relationship between Return on Equity (ROE) and each of the predictors (that is, the independent variables). Because the values are all positive, it can be said that there is a positive relationship between the predictors and the outcome (ROE).

Measurement of the variables: A close look at the regression coefficient table reveals the following:

- General risk management (RMGM) : (B=0.382, β=.276, t=5.446, $p<0.001$) which significantly predicts ROE. It is measured by the contribution of the components of the variable (VAR) in determining its effect on the dependent variable (ROE). R^2 value of dependent variable on VAR is 0.614. Expressed in percentage, this means that the model explains or accounts for 27.6% of the variance of Risk Management. The most substantive predictor of ROE is the Risk Management variable (VAR) as proxy of Risk Management since it has the least significant value and the largest *t* value. The beta value indicates that as risk management factors are effectively managed, there would be increase in Return on Equity which predicts bank performance.

- Corporate Governance (CGBR): (B=.494, β=.446, t=.8.109, p<0.001) significantly predicts ROE. The beta value indicates that as good corporate governance principles are adhered to, there would be increase in banks' performance or ROE. R^2 value of dependent variable on CAR is .446. Expressed in percentage, this means that the model explains or account for 44.6% of the variance of Corporate Governance. In other word, the indicated components that made up CAR contribute 44.6% of variance of corporate governance on ROE.

Note that the Regression equation could be transformed based on the above components as follows: $ROE = \beta_1 RMGM + \beta_2 CGBR + \beta_3 OFBF + \beta_4 MCBF + \varepsilon_1$.

b_1 = *the coefficient of the 1st predictor* (X_1) which is General Risk Management (RMGM or VAR as proxy.

B_2 = the coefficient of the 2nd predictor (x_2) which is Other Factors to bank failure (OFBF).

B_3 = the coefficient of the 3rd predictor (x_3) which is Variance (MCBF).

B_4 = the coefficient of the 4th predictor (x_4) which is Corporate Governance (CGBR) or CAR as proxy.

b_n = the coefficient of the nth predictor (X_n)

E_1 = the difference between the predicted and observed value Y for the nth participant.

As demonstrated above, a linear multiple regression model was used to find the linear combination of the predictors that correlate maximally with the outcome variable (ROE). The rule remained that, where the value in the significant column was less than 0.05, then the predictor is making a significant contribution to the model. The smaller the

significant value, and the larger the value of *t*, then the greater the contribution of the predictor to the output. In this particular situation, based on the beta values, the most substantive predictor of ROE is the Risk Management variable (VAR) since it has the least significant value and the largest t value. This was followed by the Corporate Governance variable (CAR). Although both the VAR and NPM had .000 on the significant values, but the t value of VAR at 6.264 was larger than the 5.518 recorded for other Factor. Variation in the contribution of the major constructs to bank failures was on the third place with significant value at 0.001 while corporate governance and banking regulations were the lowest with significant value at 0.007 and was the lowest significant amongst the four predictor variables.

In the Model Summary of the regression, R= .748, R^2 = .555 while the Adjusted R^2 = .555 and the standard Error or the Estimated is = 3.939. These were showing the correlation between the observed value of the variables and the predicted values which variance was not much. The figures displayed in the Nonparametric Correlation in the output were akin to the result summary in the Friedman Correlation shown below. The General Risk Management (RMGM) variable for example has correlation coefficient on performance as .000 on a 2-tailed scheme; while the *N* was 300. The Corporate Governance has correlation coefficient on Bank Performance as .494; with significant value on a 2-tailed scheme at.000 while the *N* value was also 300 as was indicated on RMGM. The Bank Regulation figures were: .308 for correlation coefficient; significance on a 2 tailed at .000 while N value was equally 300.

In table 13 above I illustrated the partial correlation on other factors that could cause bank failure. The major constructs on the table were standing in as control variables while the other factors were being correlated against bank performance. The result was that, there was a partial correlation between the other factors and bank performance but the positive relationship was not significant. As could be seen from the table, the correlation between other factors and bank performance was .310.

Research Question 4

What other silent factors-other than ineffective risk management, poor corporate governance and non-adherence to regulations—contribute to the persistent bank failures. This statement was related to all the questions in the table 8 below

Null Hypothesis: There are no other silent factors- such as ineffective risk management, poor corporate governance and non-adherence to regulations that contribute to bank failure

Alternative Hypothesis: There are other silent factors-other than ineffective risk management, poor corporate governance and non-adherence to regulations that contribute to the persistent bank failures

Table 14

A Descriptive Analysis of Other Factors and Enterprise Risk Management

	SA	A	PA	D	SD	Mean	S.D	Tank
There are other silent factors both political, economical and global that contribute to persistent bank failures	84 (28%)	192 (64%)	22 (7.3%)	2 (.7%)	0 (0%)	4.19	0.58	1
Changes in macro-economic and monetary policies in a country could have adverse effects on the performance of banks	86 (28.7%)	188 (62.7%)	19 (6.3%)	7 (2.3%)	0 (0%)	4.17	0.64	2
The global financial crisis (2007-2012) political instability, managerial factors and macro-economic factors are not other silent contributors to incessant band failures	82 (27.3%)	182 (60.7%)	36 (12%)	0 (0%)	0 (0%)	4.15	0.60	3
The effects of global financial crisis especially all great depression and the 2007-2012 financial crisis contributed to many banking institutions' failures	85 (28.3%)	179 (59.7%)	29 (9.7%)	7 (2.3%)	0 (0%)	4.14	0.67	4
Political and Economic factors especially the weak macro economic conditions could be among the other silent factors contributing to incessant bank failures	59 (19.7%)	190 (63.3%)	49 (16.3%)	2 (.7%)	0 (0%)	4.02	0.62	5

I used Table 14 above to illustrate that there are other silent factors both political, economical and global that contributes to the persistent bank failures (28% strongly agreed and 64% agreed). Changes in macroeconomic and monetary policies in a country could have adverse effects on the performance of banks (28.7% strongly agreed and 62.7% agreed); the global financial crisis (2007-2012) political instability, managerial factors and macro-economic factors are other silent contributors to incessant bank failures (27.3% strongly agreed and 60.7% agreed); the effects of global financial crisis

especially all great depression and the 2007-2012 financial crisis contributed to many banking institutions' failures (28.3% strongly agreed and 59.7% agreed); Political and Economic factors especially the weak macro economic conditions are among the other silent factors contributing to incessant bank failures (19.7% strongly agreed and 63.3% agreed). These are indicative that although they may contribute to the incessant bank failures but these silent factors are not as pronounced as those in the group of the three main constructs of this study.

Table 15

Chi-Square Test on Other Silent Factors Contributing to Bank Failures

Variable	***N***	***DF***	**Level of Significance**	**χ^2 Cal**	**χ^2 Critical**	**Remarks**
There are other silent factors both political, economical and global that contribute to persistent bank failures	300	16	0.05	120.286	26.296	$H_{I\ Accepted}$

P< 0.05, *df* (5-1) (5-1)

Result

Table 15 questions were used to run the chi-square analysis for research question 4 and it was found out that the Chi-square calculated χ^2_{cal} value of 120.286 is greater than critical Chi-square $\chi^2_{Critical}$ value of 26.296 at 16 degree of freedom and significant level of 0.05. Since the calculated value is greater than the critical value, the null hypothesis where I stated that "There are no other silent factors- such as ineffective risk management, poor corporate governance and non-adherence to regulations that contribute to bank failure" is rejected while alternative hypothesis where I indicated that

" There are other silent factors-other than ineffective risk management, poor corporate governance and nonadherence to regulations contribute to the persistent bank failures" is thus accepted.

Table 16

Inherent Risk Banks face in their Operation grouped into: Credit Risk, Liquidity risk, Market Risk, Operational Risk and Solvency Risk

	SA	A	PA	D	SD	Row
Inherent risk banks face in their operation could be grouped into: Credit risk, liquidity risk, market risk, operational risk and solvency risk	220 (73.3%)	57 (19%)	21 (7%)	2 (0.2%)	0 (0%)	1

I used Table 16 above to illustrate that 220 (or 73.3%) of the respondents strongly agreed that inherent risk banks face in their operation could be grouped into: Credit risk, liquidity risk, market risk, operational risk and solvency risk, 57 (or 19%) agree, 21 (or 7%) partially agree, two (or 0.2%) disagree, while 0% strongly disagree with the statement. Therefore, majority of the respondents strongly agree that Inherent risk banks face in their operation could be grouped into: Credit risk, liquidity risk, market risk, operational risk and solvency risk.

Table 17

Descriptive Analysis of Ineffective Risk Management in Banks

	SA	A	PA	D	SD	Row
Could ineffective risk management in banks coupled with poor corporate governance practices and nonadherence to regulations are the root causes persistent bank failure	202 (67.3%)	89 (29.7%)	6 (2%)	3 (1%)	0 (0%)	2

I used Table 17 above to determine that 202 (or 67.3%) of the respondents strongly agree that ineffective risk management in banks coupled with poor corporate governance practices and non-adherence to regulations are the major factors responsible for persistent bank failures. 89 (or 29.7%) agree, six (or 2%) partially agree, three (or 1%) disagree. While 0% strongly disagree with the statement. Majority of the respondents strongly agree that Ineffective risk management in banks coupled with poor corporate governance practices and non-adherence to regulations are the main factors responsible for the persistent bank failures.

Table 18

Banks Attention on ERM for Performance Enhancement

	SA	A	PA	D	SD	Row
banks paying attention to the inherent risks in their operation and knowing how these risks are identified, measured, analyzed and controlled on ERM basis could help in enhancing banks' performance	207 (69%)	91 (30.3%)	2 (.7%)	0 (0%)	0 (0%)	3

I also used Table 18 above to illustrate that 207 (or 69%) of the respondents strongly agree that banks paying attention to the inherent risks in their operation and knowing how these risks are identified, measured, analyzed, and controlled on ERM basis could help in enhancing banks' performance, 91 (or 30.3%) agree, 2 (or 0.7%) partially agree, 0 (or 0%) disagree, while 0% strongly disagree with the statement. Majority of the respondents strongly agree that banks paying attention to the inherent risks in their operation and knowing how these risks are identified, measured, analyzed and controlled on ERM basis could help in enhancing banks' performance.

Table 19

Significant Variation in the Level of Contribution to Banks' Failures by the Main Constructs

	SA	A	PA	SD	Row
There appear to be significant variation in the level of contribution to bank's failure by ineffective risk management, poor corporate governance and non-adherence to regulation	60 (20%)	150 (50%)	42 (14%)	9 (3%)	1

I used the Table 19 above to determine that 60 (or 20%) of the respondents strongly agree that there appear to be significant variation in the level of contribution to bank's failure by ineffective risk management, poor corporate governance and non-adherence to regulation, 150 (or 50%) agree, 42 (or 14%) partially agree, 39 (or 13%) disagree, also 9 (3%) strongly disagree with the statement. Majority of the respondents agree that there appears to be significant variation in the level of contribution to bank's failure by ineffective risk management, poor corporate governance and non-adherence to regulation.

Table 20

Relationship Between the Main Constructs in Banking Operation

	SA	A	PA	D	SD	Column
There is a positive relationship between efficient risk management, adequate corporate governance, adherence to regulations and bank performance in banking operation	238 (79.3%)	55 (18.3%)	7 (2.3%)	0 (0%)	0 (0%)	3

I used Table 20 above to illustrate that 238 (or 79.3%) of the respondents strongly agree that there is a positive relationship between efficient risk management, adequate corporate governance, adherence to regulations and bank performance in banking operation, 55 (or 18.3%) agree, seven (or.3%) partially agree, no respondent representing 0% disagree, the same no respondent representing 0% strongly disagree with the statement. Majority of the respondents therefore strongly agree that there is a positive relationship between efficient risk management, adequate corporate governance, adherence to regulations and bank performance in banking operation.

Table 21

Other Silent Causes of Bank Failures

	SA	A	PA	D	SD	Row
There are other silent factors both political, economical, institutional and global that contribute to persistent bank failures	56 (18.7%)	140 (46.7%)	84 (28%)	20 (6.7%)	0 (0%)	9

I used Table 21 above to determine that 56 (or 18.7%) of the respondents strongly agree that other silent causes could contribute to persistent bank failures, 140 (or 46.7%) agree, 84 (or 28%) partially agree, 20 (or 6.7%) disagree, while 0 representing 0% strongly disagree with the statement. Majority of the respondents agree that there are other silent factors contributing to the persistent bank failures other than ineffective risk management, poor corporate governance, and non-adherence to regulations.

Regression Analysis

A multiple regression model using the established regression equation as demonstrated above is used in this study for the assessment of the secondary data obtainable from CBN and NDIC. In estimating the coefficient parameters, the OLS Technique is used. Based on the independent variables obtained on the main constructs, the regression equation model is used to confirm the results obtained through the primary data analysis. The regression equation earlier established is as follows:

$ROE = \beta_0 + \beta_1 VAR + \beta_2 NPM + \beta_3 CAR + \beta_4 CRO + \varepsilon$

$$ROE = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_{4+} \varepsilon_1 \quad (13)$$

ROE = Dependent Variable

Independent Variables = VAR, CAR, NPM, CRO

The four independent variables are CAR as proxy for corporate governance; VAR as proxy for risk management, Corporate Regulation with NPM as proxy and CRO as the proxy for Enterprise Risk Management. The only dependent variable is ROE as proxy for bank performance in the regression equation. The components of the independent variables are: capital ratio (CR), Cash Claim on Central Bank Account (CCC), Secondary Reserve Ratio (SRR), and Loan to Deposit Ratio (LDR), Loan Losses Provisioning (LLP), Fixed Asset and Inventory Capital (FAI), Ownership Structure (OWN) Nonperforming Loan (NPL), Business Risk (BR), Leverage, Size and Net Profit Margin (NPM). Through the multiple regression equation and the correlation analysis of the variables, the inter-relationship between them is established and at the same time evaluating their impact on the survival or performance of banks.

Table 22

Multiple Regression Showing the SPSS Output for Secondary Data

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.811[a]	.658	.653	.79055	1.677

a. Predictors: (Constant), Net Profit Margin, Chief Risk Officer, Value Added Ratio, Capital Adequacy Ratio

b. Dependent Variable: Return on Equity

Table 23

ANOVA

Model	Sum of Squares	*df*	Mean Square	*F*	Sig.
1 Regression	354.022	4	88.506	141.617	.000[a]
Residual	184.364	295	.625		
Total	538.387	299			

a. Predictors: (Constant), Net Profit Margin, Chief Risk Officer, Value Added Ratio, Capital Adequacy Ratio

b. Dependent Variable: Return on Equity

Table 24

Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
Model	**B**	Std. Error	Beta	*T*	Sig.
1 (Constant)	-1.256	.614		-2.046	.042
Value Added Ratio	.043	.017	.143	2.551	.011
Chief Risk Officer	.228	.021	.624	11.015	.000
Capital Adequacy Ratio	.021	.012	.138	1.815	071
Net Profit Margin	-.028	.039	-.049	-.721	.471

a. Dependent Variable: Return on Equity

Tables 22, 23, and 24 illustrate the prediction of the components representing the independents variables on the dependent variable. The independent variables are; Corporate governance, General risk Management, Corporate Regulation and Enterprise Risk Management, while Bank Performance or ROE is the dependent variable. I was

interested in assessing the contribution of the independent variables' components on all the key variables using the secondary data.

Table 24 above contains the results of the multiple regression analysis which is the output of the SPSS for the secondary data of the study. Bank profitability as proxy for bank performance is used as the dependent variable and regressed on the thirteen explanatory variables. The coefficient of determination (R^2) which provides the level of explanation of the model is .05 suggesting that the four independent variables explained about 66% of the variations in variance of bank performance in Nigerian banks which in the ANOVA table is significant at 95% level of confidence. In other words, about 34% in the observed relationships are not explained by the four explanatory variables in this study.

The standardized beta coefficients, which provide the order of importance and relative contribution of the independent variables, show that out of four independent variables two independent variables significantly contribute differently to variance in bank performance. Chief risk officer makes the largest contribution, followed by value added ratio.

The *t* value of 2.046, which tests for the significance of each explanatory variable, also shows that all of the four independent variables make unique statistically significant contributions at 95% confidence level.

***F*-Statistic:** The *F*-statistic shows overall significance of the model. The *F*-critical is 141.617 and is significant at 5% level. The probability of its value (0.00) is less than the 0.05 critical levels. I therefore accept the alternative hypothesis that the

explanatory independent variables of chief risk officer, value added ratio, capital adequacy ratio, net profit margin significantly predict variance of bank performance in Nigeria.

However, based on the multiple regression analysis conducted on the primary data, $R^2 = .827$, $F(4,295)=4.64$, $P < 0.00$. The ROE and ROA are usually the main ratios by which the performance of a bank or the banking industry is assessed. These ratios have fundamental components such as effective risk management, corporate governance, effective enterprise risk management system, and adherence to regulations. These variables as shown in Tables 8 to 13 demonstrated the level of prediction on ROE thereby confirming the level of relationship between them.

I used Table 11 to illustrate how predictive the combined effect of the model is on each of the independent variable. The expectation by the estimation is that each of the parameters will be positive as has been determined, which implies that any increase or a positive change on any of the independent variables will result to an increase in bank performance. In other words, the level of effective risk management in a bank, good corporate governance, the appointment of Chief Risk Officer and adherence to regulation have effect on bank performance.

The correlation coefficient (R) shows the nature and extent of the relationship between the key variables and bank performance. The numerical value ranges from -1 to +1. For this study it stands as the square root of coefficient of multiple determinations (R square) in the regression output. -1 reflects a negative correlation or relation while +1 shows perfect correlation or positive relationship. The other outputs of the correlation

analysis show other degrees of correlation explaining how close or far they are from the two extreme values.

Table 25

Spearman Rank Correlation

			Mean	S.D.	1	2	3	4	5
1.	Bank performance		4.35	.38	-				
2.	Risk Management		4.39	.32	.620**				
3.	Corporate Governance	3.85	.38	.536**	.546**	-			
4.	Variance		4.03	.46	.514**	.527**	.535**	-	
5.	Other Factors	4.13	.44	.543**	.460**	. 457**	362**		

**, * Correlation is significant at the 0.01 and 0.05 level (2-tailed).

Correlation matrix value are shown in parentheses

Further Analysis of the Secondary Data on Nigerian Banks for 2010 & 2011

The reported financial indicators for 2004, 2007 and 2008 on the Nigeria banking industry showed abnormally negative figures confirming various stages of distresses in the Nigeria banking industry during those periods. By 2009 when the Central Bank of Nigeria bailed out three failing or illiquid banks by pumping into the industry the sum of ₦620billion or USD3.875billion and The Asset Management Corporation of Nigeria (AMCON) buying up the nonperforming loans of banks, brought drastic changes in the main financial indicators of the 24 operating banks in 2010 and the 20 in 2011 after the noted merger-exercises of some banks that further consolidated the total assets of the operating banks.

The tables in Appendix B showed the Nigerian banking industry's capital adequacy and asset quality in 2010 and 2011. The capital adequacy ratio increased from 4.06% in 2010 to 17.71% in 2011. The total assets of the banking industry grew by 17.27% from ₦18,661.27 to ₦21,891.56. The nonperforming loans to total loan ratio declined from 5.04% to 5.82% which improved the asset quality ratio significantly over the period mainly as a result of AMCON's purchase of non-performing loans. The average liquidity ratio for the industry also improved from 51.77% in 2010 to 65.69% in 2011. Generally, the asset quality of the banking industry improved significantly in 2010 and 2011.

The industry's total loan increased from ₦7.16 trillion in 2010 to ₦7.31 trillion in 2011 which was an increase of 2.04%. The industry's non-performing loans decreased significantly by ₦651.70 billion or 60.47% from ₦1.08 trillion in 2010 to ₦425.96 billion in 2011. The nonperforming loan ratio to total loan decreased from 15.04% in 2010 to 5.82% in 2011 which improved the quality of banks assets significantly.
The total operating income of the industry in 2011 was ₦2.33 trillion against the ₦2.16 in 2010 representing an increase of 4.90%. Likewise, total operating expense increased from ₦932.53 billion in December 2010 to ₦1.79 trillion in 2011. As a result, the industry recorded a loss of (₦ 6.71 billion) in 2011 as against a profit of ₦607.34 billion in 2010. The other vital data needed for the analysis are as follows (using 2010 figures only) Loan and Advance to Deposit Ratio 59.23, Return on Equity (ROE) 162.98% (2010) and (0.28)% in 2011

Total Assets 2010 ₦18.66 trillion

Net Fixed Asset 3.63% of ₦ 18.66 trillion

Other Assets or Inventory 4.57% of ₦18.66 trillion

Net loans and Advances/leases 32.20% of ₦ 18.66 trillion.

Total Investment 18.10% of ₦18.66 trillion.

Total Deposits 58.07% of ₦18.66 trillion.

Claim on Central Bank Current Account (CCC) 0.03% of ₦ 18.66 trillion.

Equity Capital 1.34% of ₦ 18.66 trillion.

Reserves 0.96% of ₦ 18.66 trillion.

Shareholders fund ₦ 312.36 billion (2010) and ₦1,934.93 billion (2011).

Note the changes in the ownership structure of the banks in Appendix B. Government ownership of shares could be seen in Union Bank, Unity Bank and Wema Bank where government had up to 10% government equity ownership. In the case of Mainstream Bank Limited, Enterprise Bank Limited and Keystone Bank Limited, acquired by AMCON, government had 100% government equity ownership. Notice also that six out of the twenty banks had a level of foreign ownership. Four of the banks namely: Citibank Limited, Standard Chartered Bank Plc, Stanbic IBTC Plc and Union Bank Plc had substantial foreign equity holdings in excess of 50% of total equity capital (NDIC 2011 Annual Report).

Comparative Analysis of the Secondary Data of Nigerian Banks From 2009 to 2012

Another major dispensation of banking reform in Nigeria commenced in 2009 to checkmate the negative impacts of the world's financial crisis in 2007/2008 on the Nigerian banking environment which was already weakened by apparent excesses from the operators. It was from 2009 that the Nigerian banking industry heralded a commendable institutional consolidation that streamlined the operational and supervisory basses of the industry. For this reason, the outlook of the Deposit Money Banks (DMBs) continued to improve from 2009 to 2012.

Table 26

Selected Performance Indicators of Banks for a Period of 4 Years (2009 to 2012)

S/N	DETAILS	2012	2011	2010	2009
1	Total Asset (OBS Inclusive) (?'Trillion)	24.58	21.89	18.66	17.52
2	Total Depost (?'Trillion)	14.39	12.33	10.84	9.99
3	Total Loans & Advances (?' Billion)	8, 150.03	7,273.75	7,166.76	8,912.14
4	NonPerforming Loans (?' Billion)	286.09	360.07	607.34	2,922.80
5	Profit Before Tax (?'Billion)	525.34	-6.71	312.36	-1,377.33
6	Adjusted SHFs (Tier I Capital) (?'Billion)	2,150.32	1,934.93	15.04%	448.99
	Ratios:				
7	Nonperforming Loans/Total Loans	3.51%	4.95%	15.04%	32.80%
8	Nonperforming Loans/SHFs	14.34%	17.13%	250.85%	135.70%
9	Capital Adequacy	18.07%	17.71%	4.32%	10.24%
10	Average Liquidity Ratio	68.01%	69.29%	51.77%	44.45%
11	Loans/Deposit Ratio	54.295	55.95%	66.13%	89.21%
12	ROA	2.62%	-0.04%	3.91%	-9.28%
13	ROE	22.20%	-0.28%	162.98%	-64.72%

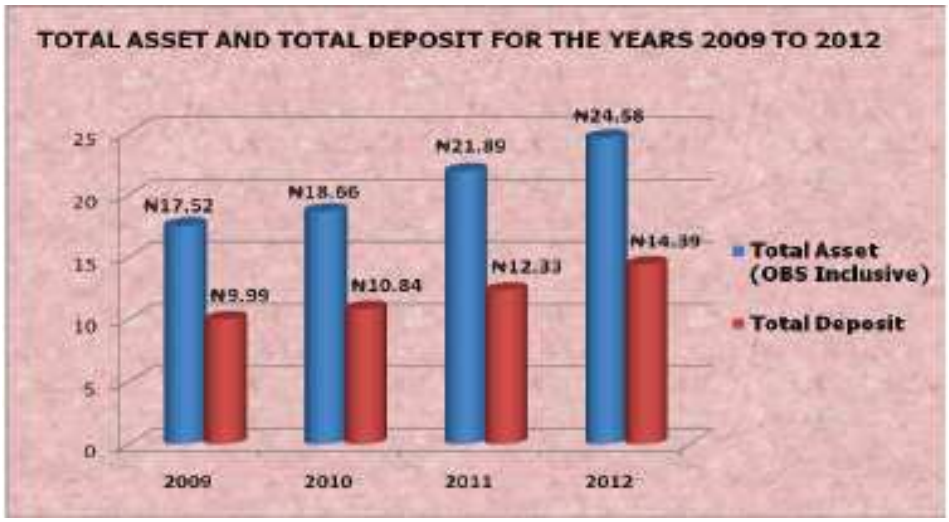

Figure 1. Total Assets and Total Deposit of Banks 2009 to 2012. (Source: NDIC 2012 Annual Report)

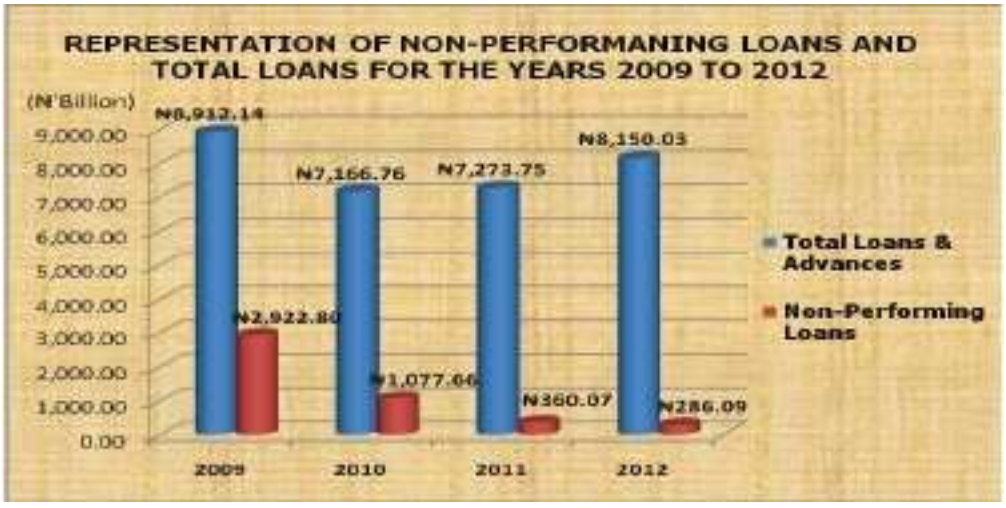

Figure 2. Representation of Nonperforming Loans and Total Loans 2009-2012 (Source: NDIC 2012 Annual Report).

Figure 3. Profit before Tax and adjusted SHFs for 2009-2012 (Source: NDIC 2012 Annual Report).

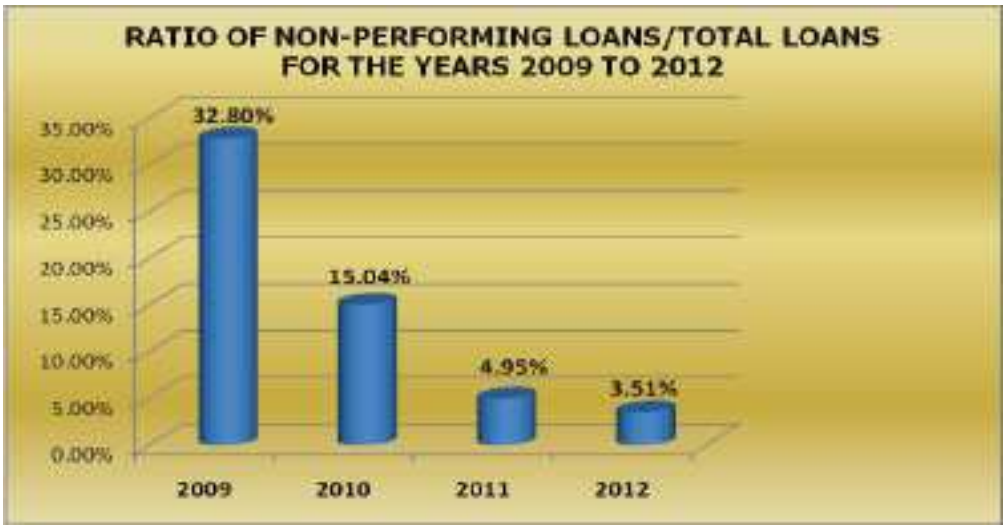

Figure 4. Ratio of Nonperforming Loans/Total Loans for 2009-2012 (Source: NDIC 2012 Annual Report).

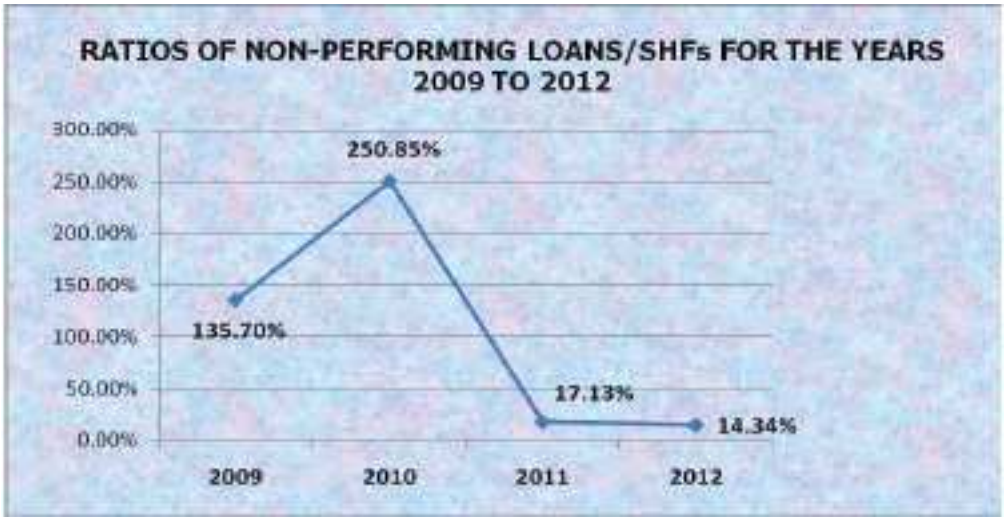

Figure 5. Ratios of Nonperforming Loans/SHFs for 2009-2012 (Source: NDIC 2012 Annual Report).

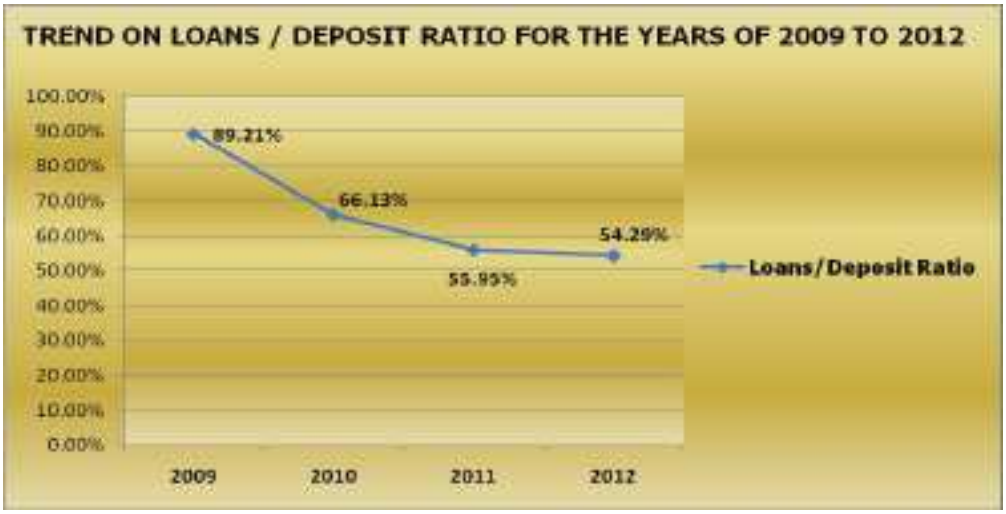

Figure 6. Trends on Loans/Deposit Ratio for the years of 2009-2012 (Source: NDIC 2012 Annual Report).

Figure 7. Returns on Assets and Returns on Equity for 2009 to 2012. (Source: NDIC 2012 Annual Report).

Table 27

Banks Shareholders' Funds as at December 2011 and 2012

S/N	BANKS	SHAREHOLDERS' FUNDS (?'BILLION 2011)	SHAREHOLDERS' FUNDS (?'BILLION 2012)
1	Access Bank Nig. Plc.	187.79	209.35
2	Mainstreet Bank Ltd.	35.82	32.76
3	Keystone Bank Plc.	45.24	35.17
4	Citibank Nigeria Ltd.	33.70	36.11
5	Diamond Bank Plc.	91.36	106.37
6	Ecobank Nigeria Plc.	44.99	127.41
7	Fidelity Bank Plc.	104.88	132.74
8	Firstbank of Nigeria Plc.	318.78	279.80
9	First City Monument Bank Plc.	130.34	119.14
10	Guaranty Bank Plc.	173.99	213.69
11	Skye Bank Plc.	99.64	102.89
12	Enterprise Bank Ltd.	11.87	26.05
13	Stanbic IBTC Bank Plc.	70.25	58.90
14	Standard Chartered Bank Ltd.	37.42	59.83
15	Sterling Bank Plc.	27.29	39.28
16	Union Bank Plc.	54.25	239.71
17	United Bank for Africa Plc.	141.68	170.06
18	Unity Bank Plc.	17.99	38.50
19	Wema Bank Plc.	11.61	9.37
20	Zenith Bank Plc.	296.04	331.95
	TOTAL	1, 934.93	2, 369.17

Table 28

Banks Ownership as of 31 December 2012

		Ownership Structure Percentage (%)		
S/N	Banks	Gov't	Private (Nigeria)	Foreign
1	Access Bank Plc	1	99	-
2	Citibank Plc	-	18.1	81.9
3	Diamond Bank Plc	0.16	99.7	0.14
4	Ecobank Plc	-	100	-
5	Enterprise Bank	100	-	-
6	Fidelity Bank	-	100	-
7	First Bank Plc	-	100	-
8	First City Monument Bank	0.47	99.53	-
9	Guaranty Trust	-	100	-
10	Keystone Bank	100	-	-
11	Mainstreet Bank	100	-	-
12	Standard Chartered Bank Nig Ltd	-	-	100
13	Skye Bank Plc	1	50	49
14	Stanbic IBTC Bank Plc	-	46.8	53.2
15	Sterling Bank Plc	0.43	83.42	16.15
16	United Bank for Africa Plc	2.75	97.25	-
17	Union Bank Plc	20	15	65
18	Unity Bank Plc	30.40	69.9	-
19	Werna Bank Plc	10	90	-
20	Zenith Bank Plc	2.6	97.4	-

Table 29

Size of Assets of top Banks in Nigeria

	2011		2012	
Banks	Assets (?Billions)	% of Total	Assets (?Billions)	% of Total
Top 5	9, 586.80	52.67	10, 241.80	51.05
Top 10	14, 166.77	77.83	15, 477.30	77.02
Other Banks	4, 034.70	22.17	4, 608.30	22.98

Source: Insurance and Surveillance Department, NDIC

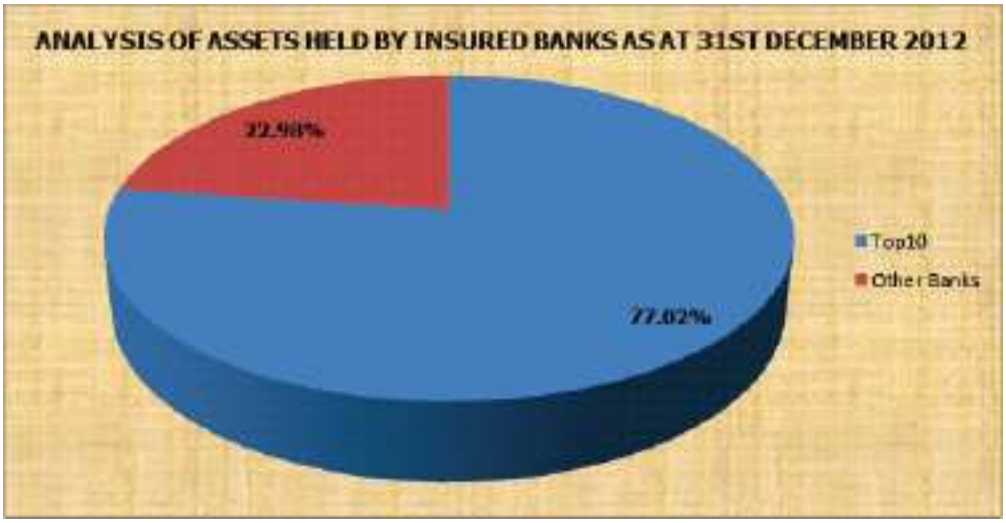

Figure 8. Analysis of Assets held by Insured Banks as at December 31, 2012 (Source: NDIC 2012 Annual Report).

Appendix B contains the summary of major developments in the Nigerian banking industry from 2009 to 2012. The industry was adequately capitalized in 2012 with capital adequacy ratio of 18.07% which was an improvement on the ratio of 17.71% recorded in 2011. The liquidity position was strong as all the Banks met the minimum liquidity threshold of 30% in 2012. The assets quality of the banks recorded significant improvement considering loan ratio to total loans decreasing from 4.95% in 2011 to 3.51% in 2012. In view of the improved credit risk management by Banks in 2012 and the purchase of Banks' non-performing loans by AMCON, the assets quality of the Banks became stronger. The profit before tax of the industry in 2012 was N525.34 billion against a recorded loss position of N6.71 billion in 2011. The performance of the Nigerian banking industry in 2012 showed a reasonable level of performance with ten of the operating banks categorized as 'B' while nine were in the 'C' category and only one in category 'D'. There was none in the 'E' category. Usually the Banks are categorized as: A – very sound, B – sound, C – satisfactory, D – marginal and E – unsound. This shows that the Nigerian banking industry in 2012 could be said to be relatively stable as there was no unsound bank in 2012.

There was improvement in both the total assets and total deposit in 2012. Likewise, both the ratios of the non-performing loans to total loans and to shareholders funds continued to decrease. The other vital ratios including the Return on Assets (ROA) and ROE showed reasonable improvements in 2012.

Generally, the Nigerian banking industry in 2012 continued to depict good state of health as its performance remained relatively stable as could be seen in major relevant

indices. In 2012, the CAR of banks improved by 0.36% points from 17.71% in 2011 to 18.07% in 2012. Only one Bank out of the twenty operating banks had a negative CAR at -14.26% because of it's under capitalization. (NDIC Annual Report, 2012)

As can be seen in Appendix B, the quality of assets of the industry as at December 31, 2012 had a significant improvement over the position as at December 31, 2011. The total loan of the banking industry was ₦8.15 trillion in 2012 which was an increase of 12.10% over ₦7.27 trillion reported in 2011. The increase notwithstanding, the non-performing loans of the industry significantly reduced by ₦73.98 billion or 20.55% from ₦360.07 billion in December 2011 to ₦286.09 billion in December 2012. In the same vein, the average nonperforming loans to total loan ratio reduced by 1.44% points from 4.95% in December 2011 to 3.51% in December 2012 which was a favorable comparison with the industry benchmark of 5%. The reason for the noticed improvement in asset quality could be traced to the improved process of loan underwriting and to the continued purchase of nonperforming loans (NPLs) by AMCON. Invariably, the top seven Banks in the Nigerian banking industry accounted for 80.73% of the total loans in 2012 as against 68.22% in 2011.

The earnings and profitability of the industry improved in 2012. It recorded a profit before tax of ₦525.34 billion in 2012 which was a significant improvement over the loss of ₦6.71 billion in 2011. This improvement could be attributed to the increase in interest income and reduction in operating expenses. There was an increase of 28.06% on interest income in 2012 increasing from ₦1.36 trillion in 2011 to ₦1.74 trillion in 2012, while the Total Operating Expenses reduced by 33.28% from ₦1.79 trillion in 2011 to

₦1.19 trillion in 2012. However, there was a drop of 31.92% on non-interest income from ₦845.66 billion to ₦575.75 billion. Recoveries declined by 70.77% from ₦118.86 billion in 2011 to ₦34.74 billion in 2012. These combined indices were responsible for the improved profit position in 2012. The Return on Assets (ROA), Return on Equity (ROE) and the Yield on Earning Assets all showed remarkable improvements. The Return on Equity (ROE) increased to 22.20% against the recorded negative figure of 0.28% in 2011. Table 36 shows some financial indices of profitability and earning as at December 31, 2012. They are equally illustrated in figure 7.

The industry's liquidity position was remarkably positive and relatively stable. The average liquidity ratio was 68.01% as at December 31, 2012 which was a marginal decline of 1.28% against the 69.29% recorded in 2011. All the operating Banks met the minimum liquidity ratio requirement of 30% as at December 31, 2012. The industry's liquidity position for 2011 and 2012 are illustrated in Appendix B.

The industry's maturity of assets and liabilities continued to show cumulative mismatch as was recorded in all the maturity bands except those maturing after 365 days. What this meant was that the banks still were financing long term investments with short term funds. As could be seen from figure 9, ₦10.97 trillion or 76.28% from the total deposit of ₦14.39 trillion would mature in 30 days; ₦1.96 trillion or 13.64% had maturity of between 31 and 90 days; while 1.45 trillion or 10.08% would mature after 90 days. Appendix B clearly illustrates the maturity structure of loans and deposit liabilities as at December 31, 2012.

Appendix B shows the shareholders' fund of the 20 operating banks in 2011 and 2012 and shows that there was 22.44% increase in the shareholders' funds from ₦1,934.93 billion in 2011 to ₦2,369.17 billion in 2012. This was attributed to AMCON's activities by the purchase of the NPLs of the Banks. AMCON's activities have continued to impact positively on the Banks as the banking industry recorded improved indices in all performance fronts which culminated in the increase in the shareholders' funds. The three Banks acquired by AMCON, namely: Enterprise, Keystone and Mainstreet Banks remained adequately capitalized during the period under review (2009-2012) and their respective capital adequacy ratios were above the regulatory 10% minimum.

The ownership structure of Nigerian Banks in 2012 remained as diversified as it was in 2011 as could be seen in Appendix B. Government ownership of shares was below 10% in most of the banks. The government however had 20%, 30.4% and 10% equity in Union, Unity and Wema Banks respectively; while 100% in the three banks acquired by AMCON (Mainstreet, Keystone, and Enterprise Bank). Seven out of the 20 operating Banks had some level of foreign ownership in 2012. Four of the seven banks have substantial foreign ownership of above 50%, that is, Chartered Bank (100%) Stanbic IBTC (53.2%) and Union Bank (65.1%).

In 2012, as in the previous 3 years, the assets of the banking industry were concentrated in few banks. Out of the total assets of ₦20.06 trillion as at December 31, 2012, the top five banks had assets of ₦10.24 trillion which represented 51.05% of the total assets of the banking industry (NDIC 2012 Annual Report).

The total assets of the top ten banks was N15.45 trillion which is 77.02% of the total assets of the industry as at December 31, 2012 against the 14.17 trillion recorded in 2011 representing 77.83%. There was an increase in the volume of deposit liabilities of Banks in 2012 as it increased from 12.33 trillion in 2011 to ₦14.39 trillion in 2012 representing an increase of 16.68%. The trend has been steady increase from 2009 to 2012. The total deposit liabilities of banks increased from ₦12.33 trillion in 2011 to ₦14.39 trillion in 2012 representing an increase of 16.68%. Out of the total deposit liabilities of ₦14.39 trillion in 2012, the deposits in the top five banks was ₦7.53 trillion representing 53.30% of total deposits of the banking industry as against 50.32% held by the top five banks in 2011. Equally, the proportion of deposit liabilities of the top ten banks increased from 71.27% in 2011 to 80.04% in 2012. This means that the remaining ten banks have deposit liability of 19.96%. Generally the outlook of the Banking industry showed a tremendous improvement from 2009 to 2012 which is signifying a positive impact of the current reforms in the banking industry. However, the industry not yet adopting the Basel II rules in its operation is limiting the expected positive impact of efficient risk management in Nigerian banking industry. (NDIC 2012 Annual Report)

The tables and figures in Appendix B show the extent of frauds and forgeries in the Nigerian Banking Industry in 2012. The Banks reported 3,380 fraud cases resulting to a total sum of ₦17.97 billion with contingent loss figure of ₦4.52 billion in 2012. This was an increase of 10.9% (₦455 million) from ₦4.072 billion recorded in 2011. The increase in the number of frauds from 2,352 in 2011 to 3,380 in 2012 (about 43.7% increase), non withstanding, the quantum in amount decreased by 36.4% from N28 billion in 2011 to

₦18.04 billion in 2012. The increase in the number of fraud could be traced to the increase activities from the introduction of ATM and internet banking.

The top 10 banks had the highest number of reported frauds which accounted for 85.7% of the recorded fraud in the entire banking industry in Nigeria in 2012. This was a reduction of 1.6% when compared to the 87.1% reported in 2011. The most common fraud cases indicate that ATM frauds, Internet banking frauds, conversion of customer deposits were top most amongst the most common frauds. In terms of severity in monetary terms, fraudulent transfer/withdrawals frauds in 2012 were the highest. This is an indication that banks should pay more attention on the management of operational risk which is the main focus of Basel III rule on risk management in Banks. This study has recommended that banks should adopt the Enterprise Risk Management culture in their operation and specifically use the Bow-Tie Technique in handling the increasing operational risks including frauds in their operations.

Deeper Analysis of the Underlying Causes of Bank Failures in Nigeria

The 1980s and 1990s produced the highest number of bank failures since after the Great Depression worldwide. The annual failure of banks in both developed and developing countries had remained on the high side. Apart from the failed banks, about 10% of the surviving banks by statistics are weak and on the verge of collapse. The baffling evidence is that banks fail both during bad and good economic times. No doubt that there could be certain economic and monetary factors that contribute to bank failures, the fundamental causes could be traced to poor risk management culture, nonadherence to regulations and poor corporate governance culture. In considering the general

economic downturns in a country, certain monetary policies and managerial factors also play significant roles in bank failures. No doubt that regional/national economic performance could affect the health of banks; it however does not fully explain why there are persistent bank failures all over the world especially in developing countries like Nigeria.

One of the prominent authors in the Nigerian scene who specifically made very remarkable study on the possible causes of bank failures in Nigeria is Ogunleye (2010), he closely reviewed the various levels of distress in the Nigerian banking system from 1989 to 2000, and how the number of distressed banks kept on growing within those years under consideration. He believed that the distress in the Nigerian banking system could be traced to some inter-related factors covering Institutional factors, Economic and Political factors and Regulatory and supervisory factors as explained in chapter two. The foregoing analysis revealed many factors that could be responsible for the persistent bank failures all over the world especially in a developing economy like Nigeria. These factors need some form of grouping to assist the banks in focusing rightly on how to manage the challenges to avoid their failure. This is what this study has tried to do by linking many of the factors into three main independent variables. Risk Management, Corporate Governance and Regulation. By extension, an additional independent variable like ERM having CRO as proxy has also been introduced in view of the fact that ERM is providing the platform on which the recommended technique for managing bank risks is based on. The four independent variables contribute in one form or the other in enhancing bank performance or where not properly managed could contribute to bank failure.

Most of the factors identified by various authors mentioned above could be grouped under the four identified independent variables used in this study. Most of the institutional factors, managerial and operational factors covering general risk management, fraud dictation and process management fall under the Risk Management Variable having VAR as proxy. Other identified factors like capital inadequacy and board factors fall under corporate governance with CAR as proxy. Lack of appropriate supervision of the banks and inadequate regulations could be grouped under regulation as an independent variable.

The grouping of the variables as per this study and using the identified variables in a regression equation, using them as independent variables and Bank Performance as the Dependent Variable with ROE as the proxy help in identifying the relationship between them. The Hypothesis of the study is: Ineffective risk management, poor corporate governance and nonadherence to regulation are the root causes of persistent bank failures and the extent of the inter relationship between risk management, corporate governance and regulation (as the main constructs) affect bank performance. The four components of the hypothesis seek to answer the research questions, and from the findings of the study, the null hypothesis is rejected while the alternatives Hypothesis is accepted meaning that ineffective risk management in banks (with the noted components) and poor corporate governance principles in banks and non-adherence to regulations or weak regulation itself and poor supervision are the root causes of bank failures. The grouping as per this study will offer banks ability to handle the identified factors more efficiently in their operations.

Findings of the Study

The findings of this study could help to strengthen banking operations if the operators would take cognizance of them and their implications. The 14 findings are as indicated below:

- It was clarified that the major risks faced by banks in their operation could be grouped into five classes; Credit risk, liquidity risk, market risk, operational risk and solvency risk; this grouping would assist banks in identifying these risks in their operations, measure them appropriately and put in place adequate control measures in managing them.
- It was found that the combination of ineffective risk management in banking operation, poor corporate governance practices and nonadherence to regulations are the root causes of persistent bank failure in Nigeria.
- It was also found that Banks paying adequate attention to the inherent risks in their operation and how these risks are identified, measured, analyzed and controlled on ERM basis help in enhancing their performance.
- Equally found was that there was significant variation in the level of contribution to banks failures by ineffective risk management, poor corporate governance and non-adherence to regulations. Inadequate risk management contributed most, followed by corporate governance and none adherence to regulation coming third.

- Also found was the positive relationship between effective risk management, adequate corporate governance, adherence to regulations and bank performance in banking operations with the effect that any positive increase of any of the independent variables would have a positive effect on bank performance(ROE) as the dependent variable.
- The study also found that there were other silent factors (though not as pronounced as those being investigated by this study) that contribute to persistent bank failures and recognizing that most individual factors identified through previous empirical studies, if properly grouped fall under the three main constructs of this study, that is, Risk Management, Corporate Governance and Regulation
- Fundamentally, it was equally found that General Risk Management has the most significant effect on Bank Performance, followed by Corporate Governance, while Banking Regulation does not have significant effect on bank performance therefore making it the least factor that causes bank failure.
- Also found was that controlling for the three major constructs of the independent variables, that the other factors also have effect on bank performance but that the effect was not significant.
- Table 19 showed the relationship between dependent and independent variables demonstrating the contribution of the various components of the independent variables on the dependent variable itself. For CAR, the

Capital ratio (CR), Loan Loss Provisioning (LLP), Fixed Asset Inventory (FAI) and Ownership Structure (OWN) made high significant contribution on CAR as an independent variable which equally have effect on Return on Equity (ROE). The Cash Claim on Central Bank (CCC) made a negative contribution of -.008, while Secondary Reserve ratio (SRR) and Loan Deposit ratio (LDR) made minor positive contribution to CAR. This individual effect notwithstanding, the general finding is that corporate governance made significant positive relationship with ROE.

- Also found was that the two component of risk management (VAR) i.e. Non Performing Loan (NPL) and Business Risk (BR) make high impact on risk management, which accounts for the significant positive relationship between risk management and bank performance.
- Equally found was that the three components of Enterprise Risk Management (ERM), that is, Profit (PRT), Leverage (LVR) and Size (SIZ), all make positive contributions on enterprise risk management as independent variable affecting bank performance. However, leverage and Size make more significant impacts than Profit, but they in all contribute to the significant positive relationship between enterprise risk management and bank performance.
- Another finding was that the Net Profit Margin (NPM) as a proxy for banking regulation had a positive relationship to bank performance indicating that banks that pay due attention to fundamental regulatory

provisions reported higher net profit margins and perform better than those who do not adhere to such regulations.

- Also found was that any increase or positive change on any of the independent variables will result to an increase in bank performance, which means that the level of effective risk management in banks, good corporate governance, the adoption of enterprise risk management rules and adherence to regulations have effect on bank performance.
- Another major finding was that the four research questions which were the main components of the hypothesis had been answered and resolved, therefore confirming that the alternative hypothesis which states that "there is significant relationship between effective risk management, corporate governance, adherent to regulation, and bank performance in management of banks should be accepted while the null hypothesis should be rejected.

Summary

In the analysis of the primary data obtained from the field survey, it was confirmed that majority of the respondents strongly agree that ineffective risk management in banks coupled with poor corporate governance practices and nonadherence to regulations were the root causes of persistent bank failures. Second, was the confirmation that, banks that pay particular attention to the inherent risks in their operation and knew how these risks were identified, measured, analyzed and controlled on enterprise risk management basis would enhance their performance.

A majority of the respondents agreed that there appeared significant variation in the level of contribution to bank failures by ineffective risk management, poor corporate governance and nonadherence to regulation. Majority of the respondents also strongly agreed that there exists significant relationship between risk management, corporate governance, regulation and bank performance in banking operations. They equally agreed that there were other silent factors contributing to the persistent bank failures other than ineffective risk management, poor corporate governance and non adherent to regulations. These other silent causes included some institutional factors, economic, political and global factors.

The Spearman rank correlation revealed Cronbach's matrix of risk management as 68%. Adequate corporate governance as 62.6% and Adherence to regulation as 41%. Therefore, the internal consistency of each measurement construct has been achieved confirming that significant positive relationship exist between risk management, corporate governance, adherence to regulation and bank performance.

In the analysis of the secondary data using the established regression equation of

$$ROE = \alpha_0 + \beta_0 + \beta_1 VAR + \beta_2 NPM + \beta_3 CAR + \beta_4 CRO + \varepsilon$$

The R^2 value of each of the independent variables adoption were: CAR was 80.8% of the variance of corporate governance, VAR was 97.5% of the variance of Risk Management, CRO was 74.7% of the variance of Enterprise risk management and lastly ROE was 72.6% of the variance of Bank performance. The implication of this was that any increase or positive change on any of the independent variables will resulted in an increase in bank performance. In other words, the level of effective risk management in a bank, good

corporate governance, appointment of CRO and adherence to regulation had effect on bank performance. The regression model with the indicated values of R^2 of each of the independent variables showed that the model explains high percentage of the variance of the variables. The correlation coefficient R equally showed the nature and extent of the relationship between the key variables and bank performance.

In the final analysis, the four components of the hypothesis of the study which were in line with the research questions were appropriate, therefore implying that the null hypothesis (H_0) should be rejected while the alternative H_1 should be accepted. This means that ineffective risk management, poor corporate governance, and nonadherence to regulations were the root causes of persistent bank failures. It equally goes to show the basis of the Square Gap Model (SGM) which had the four main constructs: Risk Management, Corporate Governance, Regulation and Bank Performance as the foundation of the theory. The result obtained in the analysis of the primary data is akin to those obtained in the secondary data which suggests that banks need to pay more attention to issues relating to risk management, corporate governance and regulations in order to enhance their performance. The other silent findings of the study were equally highlighted in this chapter. These findings provide the platform for the expected discussions, recommendations and conclusions in Chapter 5 of this study.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The main purpose of this study was to determine why there have been persistent bank failures in Nigeria. The study investigated whether ineffective risk management in banks, coupled with poor corporate governance practices and non-adherence to regulations, were the major factors responsible for the persistent bank failures. In synthesizing the relationships between the main constructs of the study, contemporary risk management techniques were suggested on how to manage the risks holistically in an ERM environment to enable banks to allot their available capital on these risks to reduce banks' losses and their eventual failures.

This was a quantitative study in which the major inference was deductive. The conceptual framework was based on the SGM which demonstrated the relationship between risk management, corporate governance, regulation and bank performance as the main constructs in the study which was tested empirically. The ERM concept, a fundamental platform, helped the recommended new risk management method, the Bow-Tie technique, to manage banks' inherent risks. This technique was incorporated into the framework of the SGM. The Square in the model looked at the flow of the four main constructs in banking operation to learn how they enhance or mar a bank's performance. The model equally helped in answering the research questions and brought to fore the reason behind the study —to bring to the banks' knowledge new risk management techniques to help in reducing their losses by identifying the inherent risks. It is also important to put in place adequate measurement processes, evaluate and monitor them, by

putting in place proper controls and allotting available capital to help to provide cushion against losses. Fundamental in the study was knowing the relationship between the constructs and how their effective use could enhance banks' performance and also how the study would help in safeguarding the financial system from imminent collapse —a collapse that would negatively affect society as a whole.

The key findings of the study are as follows:

A combination of ineffective risk management, poor corporate governance practices, and non-adherence to regulations were the root causes of persistent bank failure; and that there was a positive relationship between the main constructs of the study, equally, that there was a significant variation in the level of contribution to bank failures by ineffective risk management, poor corporate governance and non-adherence to regulations. The study also confirmed that there were other silent factors contributing to bank failures but that the group of factors under the three main constructs of the study remained the root and dominant causes.

Discussions

Interpretation of the Findings

Fundamental in the interpretation of the findings could be seen in the interface between the main constructs (i.e., risk management, corporate governance, regulation, and bank performance) of the study and how the relationship between them could assist banks to avoid failure traps. The study in the first place confirmed that ineffective management of the inherent risks in banks operations; poor corporate governance and

nonadherence to regulations by banks were the root causes of bank failures. These findings were akin to the components of the hypothesis of the study.

There existed an interface between risk management, corporate governance and regulation in banking operation. The three as the main constructs of the study influence bank performance that was why this empirical study confirmed that the poor management of the components of the three variables could be responsible for the persistent bank failures. Many studies on the area of distress in banks and causes of bank failures had attributed them to so many factors; however, when they are appropriately grouped, they fall under risk management, corporate governance and regulation. In most financial systems, regulation to a large extent determines corporate governance that are adopted by the banks and indirectly defines the risk appetite of banks and the way those risks are accepted and controlled. Corporate governance in its full scope influenced risk management as it is the board and management of a bank as instruments in corporate governance that determine the risk appetite of a bank and how they are controlled. This apparent interface between these main independent variables of this study and their influence on bank performance provide the platform for the SGM theory that has risk management, corporate governance, regulation and bank performance as the square foundation. The interface is engineered in the banking environment by the adoption of the ERM culture which rides on the Bow-Tie technique that provides a holistic approach to risk management in banks with a scientific weighting method in managing the inherent risks in banking operation.

The earlier analyses in chapters two and three above revealed many factors that could be responsible for the persistent bank failures especially in a developing economy like Nigeria. These factors need some form of grouping to assist the banks in refocusing rightly on how to manage the unfolding challenges in their operations to avoid their failures. This was what this study tried to do by linking many of the factors into the three main independent variables: Risk Management, Corporate Governance and Regulation. By extension, an additional independent variable like ERM having CRO as proxy has been introduced in view of the fact that ERM is providing the platform on which the recommended techniques for managing bank risks is based on. The four independent variables therefore contribute in one form or the other in enhancing bank performance. Most of the factors identified by all the authors mentioned earlier could be grouped under the four identified independent variables used in this study. Most of the institutional factors, managerial, and operational factors fall under the Risk Management Variable having VAR as proxy. Other identified factors like capital inadequacy and board related factors fall under corporate governance with CAR as proxy. Lack of appropriate supervision of the banks and inadequate regulations could be grouped under regulation as an independent variable.

The grouping of the variables as per this study and using the identified variables in a regression equation as independent variables and Bank Performance as the Dependent Variable with ROE as the proxy helped in defining the relationship between the variables. The alternative hypothesis of the study is H_1: There is significant relationship between effective risk management, corporate governance, adherent to

regulation, and bank performance in management of banks. The null hypothesis is H_0: There is no significant relationship between effective risk management, corporate governance, adherent to regulation, and bank performance in management of banks. . The four components of the hypothesis seek to answer the research questions, and from the findings of the study, the null hypothesis is rejected while the alternative Hypothesis is accepted. In other words, ineffective risk management in banks and poor corporate governance principles in banks and non-adherence to regulations or weak regulation are the main factors responsible for persistent banks failures. The grouping as per this study will offer banks ability to handle the identified factors more efficiently in their operation.

The four components of the hypothesis which the findings of the study confirmed are: First, that ineffective risk management, poor corporate governance and non-adherence to regulations are the root causes of the persistent bank failures. Second, is that there is a significant variation in the level of contribution to bank performance or failure by the three main variables (risk management, corporate governance and regulations). Third, is that there are inter-relationships between the main constructs, and fourth, is that there are other silent causes to the persistent bank failures as the mention of the root causes is suggestive that there could be other silent causes.

Authors' Views From Empirical Studies on Bank Failure

One of the prominent authors in the Nigerian scene who specifically made very remarkable study on the possible causes of bank failures in Nigeria was Ogunleye (2010), he closely reviewed the various levels of distress in the Nigerian banking system from 1989 to 2000, and how the number of distressed banks kept on growing within those

years under consideration. He believed that the distress in the Nigerian banking system could be traced to some interrelated factors covering Institutional factors, Economic and Political factors and Regulatory and supervisory factors. Under the institutional factors, he summarized the root causes as: abusive ownership and weak Board of Directors; insider abuse; weak corporate governance; Weak Risk Assets Management Practices and inadequacy of capital. On the economic and political factors, he believes that many national and international factors induced high instability in the economic environment that imparted on Nigerian banking industry negatively. Some of these are the collapse of oil prices, the Structural Adjustment Program (SAP), political instability caused by failed election in 1993, inadequate legal framework for debt recovery and prosecution of cases of financial malpractices, and continuous defaulting attitude of many Nigerian borrowers. Regarding the Regulatory and Supervisory measures, Ogunleye (2010) indicated that the regulatory framework was deficient in keeping pace with the rapid changes in the banking industry and that the supervisory resources were overstretched because of the phenomenal growth rate in the number of banks in Nigeria. Inadequate regulatory capacity was fundamental as the earlier emphasis was on only credit risks by supervisors and inadequate disclosure of information worsened the regulatory and supervisory tasks of CBN and NDIC. The introduction of some Prudential Guidelines especially those on assets classification and provisioning for loan losses further exposed the weak banks. Also the use of stabilization securities as a monetary policy tool further worsened the illiquid positions of some banks. The failure of the Auditors according to Ogunleye to

report many irregularities in banks contributed in worsening the distressed conditions of many banks.

According to Ojo (1995), distress in banking in Nigeria is connected to the prevailing economic recession, macroeconomic instability, poor asset quality, mismatching of assets and liabilities, bad management and insider abuse. Ologun (1994) indicated that inadequate legal framework and structure, ownership, inadequate capital, poor management, political instability, upsurge in the number of banks, illiquidity, and insider abuse are the contributing factors to bank distress.

Abdullahi (2010) summed up the causes and analyzed them in 10 subheadings: "the inhibitive policy environment, macroeconomic instability, unfavourable policies of government, political instability and interferences, indiscipline and corruption in the society, lack of experienced and adequate personnel, fraud, forgery and insider abuse, poor loan administration, poor internal control and high overhead cost." According to him, there has been distress in the Nigerian banking system for a long time, but that it cannot be described as systemic as good number of banks remained healthy. Abdullahi stressed the need for regulatory authorities to use better measures of evaluation on the noted features of distresses in banks in order to dictate distress at early stages to avoid bank failures or create sufficient lead-time to apply remediable solutions.

According to Sanusi (2010), there are eight interdependent factors that led to the observed distress in the Nigerian financial system. These factors he believed were propelled by the global financial crisis and recession from 2008. These eight factors are: "macro-economic instability caused mainly by large and sudden capital inflows; major

failures in corporate governance in banks; lack of investor and consumer sophistication; inadequate disclosure and transparency about financial position of banks; critical gaps in regulatory framework and regulations; uneven supervision and enforcement; unstructured governance and management processes at the CBN/weaknesses within the CBN; and weaknesses in the business environment".

According to Adeyemi (2011), capital inadequacy, lack of transparency and huge non-performing loans were the major causes of bank failures in Nigeria. In addition to those three key factors, he empirically identified some other factor as silent contributors to the inherent failure of banks in Nigeria. These amongst others are ownership structure, weak/ineffective internal control system, and poor management. In agreement with Adeyemi on the issue of inadequate capitalization as one of the major factors responsible for bank failures in Nigeria, Ogundina (1999) opined that capital in every business serves as a cushion against losses not covered by current earnings. Also in agreement with Adeyemi on the issue of transparency, Anameje (2007) indicated that transparency and disclosure of information are key attributes of good corporate governance which banks must cultivate with new zeal so as to provide stakeholders with necessary information to judge whether their interest are being taken care of. According to Sanusi (2003), the lack of transparency undermines the ethics of good corporate governance and the prospect for effective contingency plan for managing systemic distress. In support of Mr. Adeyemi's views on issue of large non-performing loans carried by Nigerian banks as one of the major causes of distress, Ogundina (1999) observed that the Nigerian financial system

over the years has been under severe stress as a result of large amount of non-performing loans.

However, Ogubunka (2003) indentified five main factors that contribute to bank distress in Nigeria as boardroom squabbles arising from ownership; frauds and forgeries; weak/ineffective internal control systems; lack of adherence to CBN prudential guide-lines and poor management. According to CBN (1997), the factors contributing to distress in the Nigeria financial system were summed up as: weak management, macroeconomic instability; fraudulent and corrupt practices; political factors and regulatory and supervisory factors.

By extension of knowledge on the issues of other silent causes of bank failures, further studies should be conducted on how to properly group these other causes of bank failures other than the three groupings used in this study, that is, Risk management, Corporate Governance and Regulations. This would assist managements of banks in the identification and control of such risks.

Analysis and Interpretation of Findings in Line With the Conceptual Framework

The conceptual framework of the study as mentioned above was based on the SGM which demonstrates the relationship between risk management, corporate governance, regulation and bank performance as the main constructs in the study. The basic findings confirmed that ineffective risk management, poor corporate governance, and nonadherence to regulation by banks were the root causes of bank failures. In relating this to the SGM theory would closely consider the components of each of the main constructs used in this study as the independent variables and to note the interface

between the variables and how such relationship could assist banks avoid failure traps. There exists an interface between risk management, corporate governance and regulation in banking operation and this interface positively influences bank performance. The study therefore confirms that the poor management of the components of the three variables is responsible for the persistent bank failures. It has been noted that regulation influence corporate governance adopted by banks and also define the risk appetite of banks and how the risks are controlled. This interface between these main variables and their influence on bank performance provide the platform for the SGM theory that has Risk Management, Corporate Governance, Regulation and Bank Performance as the Square in the foundation of the theory.

I used four independent variables which contribute in one way or the other to enhance bank performance. The first is Risk Management which has VAR as proxy and is engineered in the banking environment by the adoption of the ERM culture which rides on the Bow-Tie technique to provide a holistic approach to risk management in banks. The second is Corporate Governance which has CAR as proxy. The third is regulation while the fourth is Enterprise Risk Management that uses CRO as the proxy. The grouping of the variables in the study and using them in the regression equation as independent variables and Bank Performance as the Dependent Variables with ROE as the proxy helped to define the relationship between the variables.

The model equally helped in proving the hypothesis of the study which has four components that assist in addressing the research questions. Based on the findings flowing from the components of the study, the null hypothesis is rejected while the

alternative hypothesis is accepted which is indicative that ineffective risk management in banks and poor corporate governance principles and non-adherence to regulations are the root causes of persistent bank failures. The study as a quantitative study where the major inference is deductive has a conceptual framework centered on the Square Gap Model demonstrates the relationship between the constructs and how they affect bank performance. The theory is tested empirically to demonstrate how the variables are at the root of bank operation and how they influence bank performance.

Conclusions

The study confirmed that:

- The combination of ineffective risk management in banking operation, poor corporate governance practices and non-adherence to regulations are the root causes of persistent bank failures.
- Banks paying adequate attention to the inherent risks in their operation and how these risks are identified, measured, analyzed and controlled on ERM basis could help in enhancing banks' performance.
- There is significant variation in the level of contribution to banks failure by ineffective risk management, poor corporate governance and nonadherence to regulations.
- There is a positive relationship between effective risk management, adequate corporate governance, adherence to regulations and bank performance in banking operations

- There are other factors, though not as pronounced as those being investigated by this study, that contribute to persistent bank failures recognizing that most individual factors identified through previous empirical studies, if properly grouped fall under the three main constructs of this study, that is, Risk Management, Corporate Governance and Regulation
- Fundamentally, General Risk Management has the most significant effect on Bank Performance, followed by Corporate Governance, while Banking Regulation does not have significant effect on bank performance therefore making it the least factor that causes bank failure amongst the three key constructs.
- Controlling for the three major constructs of the independent variables, shows that the other factors also have effect on bank performance but that the effect is not significant.

The study as mentioned above confirmed that apart from the identified root causes, there were other silent causes as could be seen from some peer-reviewed literature described in Chapter 2. A mention of some of such studies helped in the identification of some of the silent factors that caused bank failures other than the root causes identified in this study.

Limitations of the Study

The major limitation of the study was with data collection. For the primary data 80% of the data were expected from Nigeria as the focal point of the study. The

remaining 20% expected from United Kingdom and United States came from Nigerian bankers working in those developed countries. The expected benchmarking based on the experience of foreign bankers could not be achieved. The result of the study based on the data from Nigeria gave a reasonable result but may not be generalized because the banking environments in the developed countries are not exactly the same as those in the developing countries. In the same vein, the causes of bank failures in developing countries may not be exactly those that cause bank failures in developed countries and the generalization of the result of this study therefore may not be widely acceptable as bankers in the developed economies might cast aspersions on the outcome. Extending the data collection for the primary data to bankers in the UK and USA is expected to help to validate the outcome of the study.

Another limitation in data collection came from the reliance on web-based internet survey where the initial expectation was about 80% completion and return of the survey instruments via the web. Unfortunately only 20% of the completed survey instruments came from the web while 80% came from physical distribution and return of the survey instruments which heightened the cost on data collection. Another cost related limitation on data collection was the financial constraint of not getting to (BCBS) members and to other experienced bankers in UK and United States who would have provided more insights into the root causes of persistent bank failures all over the world.

Another major limitation concerns the trustworthiness, validity and reliability of the secondary data used in the study. The data-bases of CBN, the Nigerian Deposit Insurance Corporation and that of SEC were relied upon for the basic secondary data

used in the study. It is however public knowledge that most of the information provided by Nigerian banks during the financial crisis periods were suspect. The major limitation of the study however, is with data collection. For the primary data, 80% of the data were expected from Nigeria as the focal point of the study. The remaining 20% expected from UK and USA was provided by Nigerian bankers based in those developed countries. The challenges faced in converting Likert data to interval data stood a major limitation in the analysis of the obtained data of the study. In certain instances, the analyses could lead to misleading conclusions especially when data are analyzed using means where gaps are left that could lead to wrong averaging.

Recommendations

Recommendations on Operations

Based on the findings of this study, there were six main areas recommended for further research. However there were basic recommendations for operators of banks emanating from the findings concerning risk management process in banks and the interface between risk management and the other two main constructs of this study that should be noted. The interface between these main constructs influence bank performance and assist banks to avoid failure traps. Regulation in most financial industries determines corporate governance that were adopted by the banks and indirectly defines the risk appetite of banks and the way those risks are accepted and controlled, while corporate governance influence risk management as it is the board and management of a bank as instruments in corporate governance that determine the risk appetite of a bank and how they are controlled. This apparent interface between these

main variables of this study and their influence on bank performance provide the platform for the SGM theory that has the four constructs (Risk Management, Corporate Governance, Regulation and Bank Performance) as the Square foundation. The interface is reengineered in the banking environment by the adoption of the ERM culture which rides on the Bow-Tie technique that provides a holistic approach to risk management in banks with a scientific weighting method in managing the inherent risks in banking operations. In modelling risk management in banking process, bank management should pay particular attention to the process of risk identification, measurement and control. There existed an interface between risk management, corporate governance and regulation in banking operation. The three as the main constructs of the study influence bank performance that is why this empirical study has demonstrated that the poor management of the components of the three variables could be responsible for the persistent bank failures. Many studies on the area of distress in banks and causes of bank failures have attributed them to so many factors if appropriately grouped fall under risk management, corporate governance and regulation.

The foregoing analysis revealed many factors that were responsible for the persistent bank failures all over the world especially in a developing economy like Nigeria. These factors needed some form of grouping to assist the banks in refocusing rightly on how to manage the unfolding challenges in banks to avoid their failures. This was what this study had tried to do by linking many of the factors into the three main independent variables: risk management, corporate governance and regulation. By extension, an additional independent variable like ERM having CRO as proxy has been

introduced in view of the fact that ERM is providing the platform on which the recommended techniques for managing bank risks is based on. The four independent variables contribute in one form or the other in enhancing bank performance.
Most of the factors identified by all the authors mentioned above could be grouped under the four identified independent variables used in this study. Most of the institutional factors, managerial and operational factors fall under the Risk Management Variable having VAR as proxy. Other identified factors like capital inadequacy and board related factors fall under corporate governance with CAR as proxy. Lack of appropriate supervision of the banks and inadequate regulations could be grouped under regulation as an independent variable.

The grouping of the variables as per this study and using the identified variables in a regression equation as independent variables and Bank Performance as the Dependent Variable with ROE as the proxy helped in defining the relationship between the variables. The hypothesis of the study was: There is significant relationship between effective risk management, corporate governance, adherent to regulation, and bank performance in management of banks. The four components of the hypothesis seek to answer the research questions, and from the findings of the study, the null hypothesis is rejected while the alternatives hypothesis is accepted meaning that the ineffective risk management in banks (with the noted components) and poor corporate governance principles in banks and nonadherence to regulations or weak regulation itself and poor supervision are the root causes of bank failure. The grouping as per this study will offer banks ability to handle the identified factors more efficiently in their operation.

Recommendation for Further Studies

Six areas were recommended below for further studies:

1. Identification of additional groupings for causation of banks failures: This study has identified and empirically grouped the root causes of bank failures as: ineffective risk management (with VAR as proxy of risk management); Poor Corporate Governance (with CAR as proxy for corporate governance) and nonadherence to regulation (with NPM as proxy for regulation). These constructs are used as independent variables in the regression equation in the study, while bank performance is represented by Return on Equity (ROE) as proxy and the dependent variable. The study equally confirmed that there are other silent factors that contribute to persistent bank failures all over the world. These factors need to be properly grouped to enable bank operators to focus attention properly on them. Further studies are therefore required to obtain additional independent variables that could influence bank performance.
2. Additional Risk Management Techniques. The Bow-tie Techniques is used in this study. It is believed that more techniques should be identified with more scientific weighting models to manage bank risks holistically and seamlessly.
3. Further studies should be conducted on how to authenticate the reliability of secondary data used by researchers on banks following the doubts

raised on the authenticity of data provided by banks on their operation to the supervisory agencies.

4. The Variance in the causation factors for bank failures in developing and developed economies: One of the research questions in this study sought to know whether there is significant variation in the level of contribution to bank failures by ineffective risk management in banks, poor corporate governance and non adherent to regulations. In the same vein, it is expected that further studies should go beyond this to know whether there is a significant variance in the causes of bank failures in developed and developing economies of the world.
5. Further studies on the interface between risk management, corporate governance and regulation, and how they influence bank performance should be carried out. In doing this, the components of the three independent variables should be clearly defined.
6. Further research should also be carried out into the possible advantages of managing the inherent risks in banking operations holistically using the Enterprise Risk Management (ERM) concept over the traditional way of handling them.

Implications of the Study

The essence of this research is to ascertain why there have been persistent bank failures all over the world using Nigeria as a model to investigate whether ineffective risk management in banks coupled with poor corporate governance practices and

nonadherence to regulations play significant roles in the poor performance of banks leading to their failures. The study amongst other things confirmed this position and also identified some other silent factors working in conjunction with those three main constructs which negatively impact on bank performance. The findings of the study obviously have various implications on the banking industry, bank regulators, bank owners, customers and the society as a whole.

This study is needed to help expose bank operators of the implications of not managing the inherent risks in their operation appropriately and to advance contemporary risk management techniques for adequate management of those risks in a holistic manner to guarantee the safety of banks. It is obvious that the root causes of banks failures are associated with ineffective risk management nonadherence to regulation and poor corporate governance culture in their operations. Although there could be other silent causes bothering on adverse economic, political and environmental situations, many of the major causes are linked to the ineffective risk management, nonadherence to regulation and poor corporate governance. In Nigeria as a developing economy, the apparent gaps in prudential regulatory and supervisory frameworks compound the noticed weaknesses in the three main constructs of the study.

Banks currently have great challenge as to the level of risks they accept. An effective risk management culture would help banks to develop management system that provides a seamless focus on the risk appetite as one of the drivers of performance. This is why the EMR is said to be positively correlated with performance in banking operation. For the management of a bank to achieve an effective risk management, it

must set up a top-down management system that affirms a culture that drives the daily management of the inherent risk of the bank. This environment is created by the ERM structure and driven by the adoption of the Bow-Tie risk management technique in banks. The implication therefore is that changes in risk factors, risk management procedures, corporate governance and adherence to regulation would determine or predict how profitable the bank is or the ROE. The interface between the constructs of the study and the relationship between them could assist banks to avoid failure traps. The introduction of a macro-prudential approach to banking regulation for instance would definitely help banks take proactive measures in the management of risks associated with changes in macro-economic and monetary operations which in turn would impact on the profitability of the bank.

Positive Social Change Implications

The fundamental implication of the study is to inculcate into the psyche of bank operators the new model of risk management and corporate governance that would guarantee the survival and profitability of the banks. This would in turn guarantee the safety of depositors' funds in banks and save the society of possible systemic failure in the Nigerian banking system especially the payment system which obviously would affect the society as a whole adversely. This stands as a major positive implication drive in the financial sector, as the safety of depositors funds by the avoidance of bank failures would help family stability and societal peace. Also the avoidance of bank failures would save the Tax-payers' funds used in bailing out illiquid but solvent banks through the Central Banks.

Through the study, I introduced to the research world a new theory called the SGM that illustrates the relationship between Risk Management, Corporate Governance, Regulation *and Bank Performance in the operations of Banks. I also demonstrated the moderating* effects of ownership structure in the four constructs and how the existing gaps in the separate studies of each of those four constructs can be filled through the type of ownership structure in the financial system.

Although Nigerian Banking industry is following the Basel rules to bring banking operations in Nigeria to the world's standards, there are still a lot more to be done. For instant the Nigerian banking industry is yet to implement the Basel II rules. This study is expected to create the required awareness to bankers regarding the need for them to make their operating environment fully compliant to the ERM standard and for them to adopt the Bow-Tie Technique in managing the inherent risks in their operation holistically which is in keeping with the Basel II rules. In creating the risk management culture in their operation which is in line with the ERM, they need to clearly define their risk appetite, manage the risk profile at the business level, establish a management information system that would monitor performance and focus it to each business unit, and to implement a performance management system that provides clear incentives to eliminate unprofitable risks.

The study would equally be useful to the Central Bank of Nigeria and the other supervisory agencies of banks in Nigeria providing additional guides for the supervision of banks and how to assess their performance.

The survival of banks would definitely guaranty the payment system in the Nigerian financial system which is crucial in the economic growth of the country. The depositors who put their funds in banks for the banks to invest in the economy need to be reassured that they will have back their capital and the expected interest yields. The study no doubt helps in safeguarding the financial system from imminent collapse which would negatively affect the society as a whole. In all, the positive social change implications of the study are the creation of effective risk management process in Nigerian banks to avoid their incessant failures and to guarantee the safety of depositors' funds in banks. Equally, to save the tax payers funds used in bailing out ailing banks by Central Banks.

Methodological, Theoretical and Empirical Implications

The conceptual framework is based on a theory called the SGM which demonstrates the relationship between risk management, corporate governance, regulation and bank performance as the main constructs in the study. The Enterprise Risk Management concept and a new risk management technique called the Bow-Tie technique with a scientific weighting method in managing the inherent risks in banks are incorporated into the framework of the SGM.

In most financial systems, regulation to a large extent determines corporate governance that are adopted by the banks and indirectly defines the risk appetite of banks and the way those risks are accepted and controlled. Corporate governance in its full scope influences risk management as it is the board and management of a bank as instruments in corporate governance that determine the risk appetite of a bank and how they are controlled. This apparent interface between these main variables of this study

and their influence on bank performance provide the platform for the SGM theory that has Risk Management, Corporate Governance, Regulation and Bank Performance as the square foundation. The interface is engineered in the banking environment by the adoption of the ERM culture which rides on the Bow-Tie technique that provides a holistic approach to risk management in banks with a scientific weighting method in managing the inherent risks in banking operation.

The model helps to answer the research questions and the reason behind the study. However there are four main essence of the model relevant to answering the questions. First, the model shows that a dynamic ownership structure leads to effective risk management and second, to appropriate corporate governance practices. Third, there are gaps between corporate governance and risk management, risk management and regulations, risk management and bank performance and corporate governance and bank performance which the study would help to resolve. Fourth, the type of bank ownership exposes the differences in the level of gaps in these constructs.

The SGM would assist in determining why there has been persistent bank failures the world over using Nigerian Banking Industry as a model and to know whether ineffective management of the inherent risks associated with their operations coupled with poor corporate governance are the root problems. The Square in the model looks at the flow of the four main constructs in banking operation to know how they enhance or mare banks performance. The model presents a conceptual framework of relationships between risk management, corporate governance, regulation and bank performance showing how corporate governance influences bank performance from two angles:

directly, and indirectly through efficient risk management. The model also confirms that type of bank ownership have moderating effects on the four constructs.

Determining the relationship between corporate governance and risk management is important in the SGM theory. The stakeholders in banks are not only interested in earning better returns on their investment but are also concerned over how the bank's risk exposure is distributed to them. An efficient corporate governance operation in a bank would always aid risk management. The main role of regulation in the model is to serve the public interest by controlling and monitoring the operations of banks in order to restrain potential exploitation by the managements' behavior. The essence of an efficient risk management, adherence to regulation and good corporate governance would be to enhance bank performance. The main role of banks managers is to serve shareholders' interest by maximizing return on their investment. Apart from these managers' roles, managers as agents may have different interest from their principals (shareholders). This may happen when managers spend bank asset beyond the optimal size in order to increase incentives and compensation due to increasing size. Although managers may have less risk preference than shareholders expectation, managers' risk preference behavior may be relevant to both the behavior of shareholders and the public whose expectations are contrary. The SGM is sensitive to attaining the purpose of the study by accomplishing the set hypothesis which include that banks that adhere to good corporate governance rules, manage the inherent risks in their operation well and keep to set regulations would perform well and survive in every economic situation.

The conceptual framework is centered on the SGM and is different from previous studies on the subject as it relates to bank performance. The emphasis here is on the urgent need for operators of banks to appreciate the importance of efficient risk management in their operation and for adequate attention to be paid to it in order to enhance their performance and guarantee their survival. The previous researchers who assessed the major causes of bank failures in Nigeria never emphasized issues relating to risk management which is the fundamental phenomenon of this study. The impacts of risk management in banks are tested empirically using the SGM theory where the four main constructs (risk management, corporate governance, regulation and Bank performance) forming the square in the theory are used as foundation. The study in addition to giving an in-depth view of risk management also reviews the root causes of incessant bank failures.

Banks currently have great challenge as to the level of risks they accept and how such risks are managed; this is why an effective risk management culture is recommended to help banks to develop management system that can provide a seamless focus on the risk appetite as one of the drivers of performance. This is therefore the essence of the EMR and why it is said to be positively correlated with performance in banking operation. For the management of a bank to achieve an effective risk management, it must set up a top-down management system that affirms a culture that drives the daily management of the inherent risk of the bank. This environment is created by the ERM structure and driven by the adoption of the Bow-Tie risk management technique in banks.

Implications on Banking Practice

The implication therefore is that changes in risk factors, risk management procedures, corporate governance and adherence to regulation would determine or predict how profitable the bank is or the ROE. Understanding the interface between the constructs of the study and the relationship between them could assist banks to avoid failure traps. The introduction of a macro-prudential approach to banking regulation for instance would definitely help banks take proactive measures in the management of risks associated with changes in macro-economic and monetary operations which in turn would impact on the profitability of the bank. To assist banks in reducing losses in their operations, it is necessary for mechanisms to be put in place for the identification of the inherent risks, put in place adequate measurement processes, evaluate and monitor them, and put in place proper controls by allotting available capital to help to provide cushion against losses. Fundamental in the study is knowing the relationship between the constructs and how their effective use can enhance bank's performance and also how the study would help in safeguarding the financial system from imminent collapse which would affect the society negatively.

Summary

Ineffective risk management of the inherent risks in banking operation, poor corporate governance practices and nonadherence to regulations are the major factors responsible for the persistent bank failures using Nigerian banking industry as a focal point in the study. In order for the banks to avoid the failure traps, they need to understand the principle behind the SGM, a quantitative theory designed to show the

relationship between the key variables of the study (Risk management, Corporate Governance, Regulation and Bank Performance).

The interface between these variables help to establish the fact that banks who desire high performance need to pay closer attention to the management of the inherent risks in their operations, put in place adequate corporate governance structures and adhere strictly to banking regulations. In demonstrating the interface between the independent variables and their influence on bank performance (with Return on Equity as proxy) regulation for instance determines the corporate governance adopted by the banks and indirectly defines the risk appetite of banks and the way those risks are accepted and controlled. In other words, adopting contemporary risk management techniques under an Enterprise Risk Management structure for adequate management of those risks in a holistic manner would guarantee the safety of the banks.

References

Adeusi, S. O., Akeke, N. I., Adebisi, O. S., &Oladunjoye, O. (2013). "Risk Management Financial Performance of Banks in Nigeria". *Journal of Business and Management.*

Adeyemi, B. (2011*). Bank failure in Nigeria: A consequence of capital inadequacy, lack of transparency and non-performing loans?* Banks and Bank Systems, 6(1), 99-109.

Ai, J., Brockett, P. L., Cooper, W. W., &Golden, L. L. (2012): Enterprise Risk Management through Strategic Allocation of Capital, *Journal of Risk and Insurance* 79(1): 29-56.

Akhter, W. (2010). *Risk Management in Takaful*. *Enterprise Risk Management*, 1(1) : E8. ISSN 1937-7916

Altuntas, M., Berry-Stölzle, T. R., & Hoyt, R. E. (2011): Implementation of Enterprise Risk Management: Evidence from the German Property-Liability Insurance Industry, Geneva *Papers on Risk & Insurance - Issues and Practice* 36(3): 414-439.

Alviunessen, A., & Jankensgard, H. (2009). Enterprise Risk Budgeting: Bringing Risk Management into the Financial Planning Process. *Journal of Applied Finance*, 19(1/2), 178 - 190.

Anderson, R. C., Duru, A., & Reeb, D. M.(2009). Founders, Heirs, and Corporate Opacity in the United States, *Journal of Financial Economics*, 92: 205–222.

Anderson, T. J. (2008). *The Performance Relationship of Effective Risk Management: Exploring the Firm-Specific Investment Rationale Long Range Planning*, 41: 160

Ariffin, N. M., & Kassim, S. H. (2009). Risk Management Practices and Financial Performance of Islamic Banks: Malaysian Evidence. Being a Paper presented at the 8th International Conference on Islamic Economics and Finance.

Baiquan, S., & Kebao, W. (2010). *An Integrated Risk Management Model for Financial Banks with Knowledge Management*. 2010 3rd International Symposium on Knowledge Acquisition and Modelling.

Basel Committee on Banking Supervision (2008). *International framework for operational risk measurement, standards and monitoring*. Paper presented by BIS consultative document. Retrieved from: www.bis.org/pub/bcbs165

Beasley, M. S., Branson, C. B., &Hancock, V. B. (2010). *Are You Identifying Your Most Significant Risks? Strategic Finance (November)* : 29-35. Retrieved 16 September 2011 from http://newsbusiness.vlex.com/vid/identifying-significantrisks-229355535

Beasley, M., Branson, B., a&Hancock, B. (2009): *Report on the Current State of Enterprise Risk Oversight, ERM Initiative at North Carolina State University*, Raleigh.

Beasley, M., Branson, B., &Hancock, B. (2010): *COSO's Report on ERM - Current State of Enterprise Risk Oversight and Market Perceptions of COSO's ERM Framework, ERM Initiative at North Carolina State University*, Raleigh.

Beasley, M., Clune, R., & Hermanson, D. (2009). Enterprise Risk Management: An Empirical Analysis of Factors Associated with the Extent of implementation. *Journal of Accounting and Public Policy* 24(6): 521 -531.

Beasley, M., Pagach, D., & Warr, R. (2009). The information conveyed in hiring of senior executives overseeing enterprise - wide risk management processes. *Journal of Accounting, Auditing and Finance,* 23(3): 311-332.

Bertinetti, G., Cavezzali, E., & Gardenal, G. (2013). *The effect of the Enterprise Risk Management Implementation on the firm value of European Companies*. Retrieved from: doi:http://dx.doi.org/10.2139/ssrn.2229271

Bhimani, A. (2009). *Risk management, corporate governance and management accounting: Emerging interdependencies*. Management Accounting Research, 20(1), 2. Retrieved from http://search.proquest.com/docview/220614471?accountid=13044

Bozek, S., &Tworek, P. (2011). Risk management standardization in entrepreneurship.

Bruner, C. M. (2010), Corporate Governance Reform in a Time of Crisis. *The Journal of Corporate Law,* Vol. 36 (2).

Cai et al., (2009). Managing Efficient Capital Allocation with Emphasis on the Chinese Experience. *Journal of Business Ethics,* 87, 111-135

Central Bank of Nigeria Annual Report (2002). Retrieved from www.cbnreport2002.com

Central Bank of Nigeria/Nigeria Deposit Insurance Corporation (1995). *Distress in the Nigerian Financial Services Industry*: CIBN/NDIC Collaborative Study, Lagos, Nigeria: Page Publishers Services Ltd.

Chase-Jenkins, L., Farr, I., & Lebens, J. (2010). *Risk Appetite: The Foundation of Enterprise Risk Management.* In T. Watson (Ed.), Thought Leadership Series: Towers Watson.

Committee of Sponsoring Organizations of the Treadway Commission (COSO) (2009): Strengthening Enterprise Risk Management for Strategic Advantage, available at http://www.coso.org, accessed 07/01/2013.

Coskun, U. (2012). *Financial failure and risk management*. Sermaye, Piyasasi Dergisi, 10(2); 100-109.

Cummins, D. J., &Weiss, M. A. (2009). Convergence of insurance and financial markets: Hybrid and securitized risk - transfer solutions. *Journal of Risk and Insurance*, 76(3):493-545.

Dafikpaku, E. (2011). *The Strategic Implications of Enterprise Risk Management: A Framework.* Paper presented at 2011 ERM Symposium held on 14 March –16 March 2011 at Swissotel Chicago, Chicago IL.

Daud, W. N. W., & Yazid, A. S. (2009). A Conceptual Framework For The Adoption of Enterprise Risk Management in Government- Linked Companies". *International Review of Business Research Papers, 5(5): 229-238*

Daud, W. N. W. (2011). The Role of The Quality Internal Adult Support in Enterprise Risk Management (ERM) Practices: Evidence From Malaysia. *International Journal of Business and Social Sciences, 2(5)*

Daud, W. N. W., Haron, H., & Ibrahim, D. N. (2011): The Role of Quality Board of Directors in Enterprise Risk Management (ERM) Practices: Evidence from

Binary Logistic Regression, *International Journal of Business and Management* 6(12): 205-211.

Daud, W. N. W., Yazid, A. S., & Hussin, M. R. (2010): The Effect of Chief Risk Officer (CRO) on Enterprise Risk Management (ERM) Practices: Evidence from Malaysia, *International Business & Economics Research Journal* 9(11): 55-64.

Deloitte (2011): *Global Risk Management Survey - Seventh Edition: Navigating in a Changed World*, available at http://www.deloitte.com, accessed 07/01/2013.

Elder, R., Zhang, Y., Zhou, J., & Zhou, N., (2009). Internal control weakness and client risk management. *Journal of Accounting, Auditing and Finance 24 (4): 543–579*

Fadun, O. S. (2013). Risk Management and Risk Management Failure: Lessons for Business Enterprises. *International Journal of Academic Research in Business and Social Sciences,* Vol. 3 (2).

Federal Reserve System Task Force on Internal Credit Models (1998). Credit risk models at major US banking institutions: Current state of the art and implications for assessments of capital adequacy. *Paper presented by the Task force of Federal Reserve System*. Retrieved from www.//federalreserve.com

Feng, M., Li, C., McVay, S. E., & Skaife, H. A. (2012). *Ineffective internal control over financial reporting and firm operations*. Retrieved from: doi:http://dx.doi.org/10.2139/ssrn.2187599

Flouris , T. & Yilmaz. K. A., (2010). ―The Risk Management Framework to Strategic Human Resource Management. *International Research Journal of Finance and Economics.* ISSN 1450-2887 Issue 36.

Frantz, M. (2011). *How much cash is at risk*? Evidence from US non-financial firms.

Garuba, A. O. (2010). Credit risk management in the Nigerian banking industry. *Journal of Research in National Development*, 8(2). Retrieved 24 December 2013. From: http: //www.transcampus.org/JORINDV8Dec2010/Journalsv8N02Dec201028.html.

Gitman, L. (2009). *Principles of Managerial Finance*. (Twelfth Edition). The Addison Wesley Publishing.

Golshan, N. M., and Rasid, S. A. (2012): Determinants of Enterprise Risk Management Adoption: An Empirical Analysis of Malaysian Public Listed Firms, *International Journal of Social and Human Sciences* 6: 119-126.

Golub, B. N., & Crum, C. C. (2010). Risk management lessons worth remembering from the credit crises of 2007 - 2009. *The Journal of Portfolio Management*, Spring 2010, 21-44.

Gordon, L. A., Loeb, M. P. & Tseng, C. Y. (2009). Enterprise Risk Management and firm performance: A contingency perspective. *Journal of Accounting and Public Policy*, 28(4), 3001 - 327.

Grace, M., Leverty, J., Phillips, R., and Shimpi, P. (2013): The Value of Investing in Enterprise Risk Management, Working Paper, Georgia State University and University of Iowa (2010), *Journal of Risk and Insurance (forthcoming*).

Gupta, P. K. (2011). Risk management in Indian companies: EWRM concerns and issues. The Journal of Risk Finance, 12(2), 121-139.

Hammersley, J.S., Myers, L.A., & Zhou, J., (2012). *The failure to remediate previously disclosed material weaknesses in internal controls*. Auditing, 31(2), 73-111. Retrieved from http://search.proquest.com/docview/1034566253

Harner, M. M. (2010). ―Ignoring the Writing on The Wall : The Role of Enterprise Risk Management in the Economic Crisis . *Journal of Business and Technology Law, 5: 45.*

Hillson, D. A., & Murray-Webster, R. (2011). Using risk appetite and risk attitude to support appropriate risk taking: A new taxonomy and model. *Journal of Project, Program & Portfolio Management*, 2(1), 29-46.

Hindson, A. (2011). Developing a risk culture. *Risk Management Journal*. 12, 28-29.

Hoyt, R. E., & Liebenberg, A. P. (2011). The value of enterprise risk management. *Journal of Risk and Insurance,* 78(4), 795-822. Retrieved from http://search.proquest.com/docview/912208029?accountid=13044

Hubbard, D. W. (2009). *The failure of management: Why it's broken and how to fix it.* Hoboken, New Jersey: John Wiley.

International Organization for Standardization (ISO) (2009): ISO 31000:2009 - *Risk management - Principles and Guidelines*, available at http://www.iso.org, accessed 07/01/2013.

International Scientific Conference on Financial Management of Firms and Financial Institutions, Vsb-Tv Ostrava, pp. 1-10. Retrieved 23 April 2014, from: http://www.ekf.vsb.cz/miranda2/export/sitesroot/ekf/konference/cs/okruhy/frpfi/prispevky/prispevky_plne_verze/Bozek.Tworek_2uprav.pdf.

Jalal, A., AlBayati, F. S., and AlBuainain, N. R. (2011). *Evaluating Enterprise Risk Management (ERM); Bahrain Financial Sectors As a Case Study*. International Business Research, 4(3): 83-92

Jorion, P. (2009). Risk management lessons from the credit crisis. European Financial Management, 2009, 1-20. Retrieved 23 April 2012, from: http://merage.uci.edu/~jorion/papers%5CRiskMgtCreditCrisis.pdf.

Khan, A., Ahmad, H., & Abbas, Z. (2011). Impact of macro-economic factors on stock prices. *Interdisciplinary Journal of Contemporary Research in Business, 3(1), 472-483.* Retrieved from: http://search.proquest.com/docview/882911792?accountid=13044

Kraus, V. and Lehner, O.M., (2013). The Nexus of Enterprise Risk Management and Value Creation: Connecting the dots and finding the blind sports, *Journal of Finance and Risk Perspectives* 1(1), 230-261 (ISSN: 2305 - 7394).

Kwan, S. (2009). Capital Structure in Banking. FRBSF Economic Letter 2009-37. Available: http://www.frbsf.org/publications/economics/letter/ (March 6, 2010).

Lai, F. W., & Samad, F. A. (2010). *Enterprise Risk Management Framework and The Empirical Determinants of Its Implementation*. 2010 International Conference on Business and Economic Research, 1

Lehner, O. M., Heller, E., (2014). Devaluation Risk of Stranded Assets in Petrochemical Companies: the Carbon Tracker Initiative Case, *Journal of Finance and Risk Perspectives,* 3 (3), in-print (ISSN 2305-7394)

Lehner, O.M. (2014). The Formation and Interplay of Social Capital in Crowd Funded Social Ventures, *Journal of Entrepreneurship & Regional Development*, 26(3), in-print (ISSN: 0898-5626).

Lehner, O.M., (2012). *Social Entrepreneurship Perspectives: Triangulated Approaches to Hybridity.* JSBE: Helsinki, Finland, 177 p., (ISBN 978-951-39-4661-6).

Lehner, O.M., (2012). The Phenomenon of Social Enterprise in Austria: A Triangulated Descriptive Study. *Journal of Social Entrepreneurship* 2(1), 53 - 78 (ISSN:1942 - 0676)

Lehner, O.M., (2013). Crowdfunding Social Ventures: A model and Research Agenda, *Journal of Venture Capital,* 15(3), 289-311 (ISSN:1369-1066)

Lehner, O.M., (2014). *Debt and Equity based Crowdfunding of Social Ventures in Oxford Handbook of Social Finance,* A. Nicholls et al. (Eds), 680 p., forthcoming in Oxford University Press, UK.

Lehner, O.M., (2014). Finance, Risk and Accounting Perspectives, *Journal of Venture Capital,* 16(3), in-print (ISSN:1369-1066)

Lehner, O.M., (2014). *Routledge Handbook of Social and Sustainable Finance ,* Taylor and Francis: Oxford, UK, forthcoming.

Lehner, O.M., and Harrison R., (Eds) (2014). *Finance and Risk Perspectives,* Vol. 13, 661 p., ACRN Cambridge, Publishing House (ISBN: 978-3-9503518-1-1), Cambridge, UK.

Lehner, O.M., and Kansikas J., (2012). Opportunity Recognition in Social Entrepreneurship: A Thematic Meta Analysis, *Journal of Entrepreneurship 21*(1), 23-58 (ISSN: 0971 - 3557)

Lehner, O.M., and Kansikas J., (2013). Pre-Paradigmatic Stage of Social Entrepreneurship: A systematic Literature Review, *Journal of Entrepreneurship* 4(1), 198-219 (ISSN:1369-1066)

Lehner, O.M., and Losbichler, H. (Eds) (2013). *Finance and Risk Perspectives,* Vol. 12, 650 p., ACRN Cambridge Publishing House (ISBN: 978-3-9503518-0-4), Cambridge, UK.

Lehner, O.M., and Nicholls A., (2014). Social Finance and Crowdfunding for Social Enterprises: a Public-Private Scheme Providing Legitimacy and Leverage. *Journal of Venture Capital,* 16(3), in-print (ISSN: 1369-1066)

Liebenberg, A., and Hoyt, R. (2009). *The Determinants of Enterprise Risk Management: Evidence from the Appointment of Chief Risk officers*. Risk Management and Insurance Review, 6(1): 37-56.

Manab et al.,(2010). Enterprise-wide risk management (EWRM) practices: between corporate governance compliance and value creation, *International Review of Business Research Papers, Vol. 6, No. 2, pp. 239-252.*

Manning, T. (2010). *Marketing Risk Management: Seeing Around The Corner For Improved Performance*. Published on Customer Think. Retrieved 25 September 2011 from: http://www.customerthink.com/

Matei, D., Cristea, D., & Capatina, A. (2012). Risk management in the age of turbulence - failures and challenges. Annals of “Dunarea de Jos” University of Galati Fascicle I. Economics and Applied Informatics, 2, 17-22.

McShane, M. K., Nair, A., and Rustambekov, E. (2011): Does Enterprise Risk Management Increase Firm Value?, *Journal of Accounting, Auditing & Finance* 16(4): 641-658.

Mohammad, S., Othman, J., Rosmimah R. and Lehner O.M., (2014). The Use of Islamic Hedging Instruments as Non Speculative Risk Management Tools, *Journal of Venture Capital,* 16(3), in-print (ISSN: 1369-1066).

Muralidhar, K. (2010). Enterprise Risk Management in the Middle East Oil Industry. *International Journal of Energy Sector Management, 4(1): 59-86*

Njogo, B. O. (2012). Risk management in the Nigerian banking industry. Kuwait Chapter of *Arabian Journal of Business and Management Review,* (10), 100-109.

NOCCO, B., and Stulz, R. (2009). Enterprise Risk Management: Theory and Practice, *Journal of Applied Corporate Finance,* 18:8-20

Oracle (2009). *Risk management: Protect and maximize stakeholder value. An Oracle Governance, Risk, and Compliance White Paper*. Retrieved 23 April 2012, from: http://www.oracle.com/us/solutions/corporate-governance/032434.pdf.

Paape, L., & Roland, F. S. (2012). *The adoption and design of enterprise risk management practices: An empirical study*. European Accounting Review, 21(3), 533-564. Retrieved from http://search.proquest.com/docview/1034409779

Paape, L., & Spekle, R. L. (2011). *The Adoption and Design of Enterprise Risk Management Practice : An Empirical Study*. Retrieved 25 September 2011 from: http://www.accaswitzerland.ch/reports_studies/coso.pdf

Pagach, D. P., & Warr, R. S. (2010). *The effects of enterprise risk management on firm performance*. Rochester, Rochester: doi: http://dx.doi.org/10.2139/ssrn.1155218

Pagach, D., and Warr, R. (2011): The Characteristics of Firms that Hire Chief Risk Officers, *Journal of Risk and Insurance* 78(1): 185-211.

Petersen, M. A.(2009*). Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches,* Review of Financial Studies, 22: 435-480.

Quon et al.,(2012). *Enterprise risk management and firm performance*. Telfer School of Management , University of Ottawa ON, Canada KIN 5N5.

Quon, D. Zéghal, D., & Maingot, M., (2012). *Enterprise risk management and business performance during the financial and economic crises. Problems and Perspectives in Management*, (accepted), Issue 3.

Rasid, A. Z. S., & Rahman, A. R. A. (2009). Management Accounting and Risk Management Practices in Financial Institutions. *Journal Technology*, 51(E): 89-110.

Razali, R. A., Yazid. S. A., & Tahir, M. I. (2011). The Determinants of Enterprise Risk Management (ERM) Practices in Malaysian Public Listed Companies. *Journal of Social and Development Sciences*, 1(5): 202-207

Rejda, G. E. (2011). *Introduction to risk management and insurance* (11th ed.). Upper Saddle River, NJ: Prentice Hall.

Rochette, M. (2009): From Risk Management to ERM, *Journal of Risk Management in Financial Institutions* 2(4): 394-408.

Rodriguez, E., & Edwards, J. S. (2009). *Knowledge Management and Enterprise Risk Management Implementation in Financial Services*. Canada

Sabato, G. (2009). *Financial Crisis: Where Did Risk Management Fails?*. Retrieved on 18 September 2011. Available at SSRN: http://ssrn.com/abstract=1460762

Sanusi, L.S (2010).*The Nigerian Banking Industry in the Aftermath of the Recent Global Financial Crisis*. Retrieved 23 December 2013 from: http://www.cibng.org/admin/publications.

Shafiq, A., and Nasr, M. (2010). Risk Management Practices Followed by the Commercial Banks in Pakistan. *International Review of Business Research Papers*, 6(2) : 308-325

Shumway, T. (2009). Forecasting Bankruptcy more accurately. A simple Hazard Model. *Journal of Business,* 74:101-124.

Slywatzky, A., and Drzik, J. (2009). *Countering the biggest Risk of All*, Harvard Business Review, 83 (April). 78 - 88.

Solimun, D. (2012). Pemodelan Persamaan Struktural. *Generalized Structured Component Analysis (GSCA).* Program Study Statistika, Fakultas MIPA Universitas Brawijaya.

Stephen, G. A. (2012). Updated COSO framework will help: Audit committees comply with SOX. *Journal of Accountancy*, 214(1), 27-28,30,8. Retrieved from http://search.proquest.com/docview/1025744239?accountid=13044

Stulz, R. (2009). *Rething Risk Management, The Revolution in Corporate Finance 5th edition* (Oxford: Blackwell Publishing), pp. 367 - 384.

Tahir, I. M., and Razali, A. R. (2011): The Relationship between Enterprise Risk Management and Firm Value: Evidence from Malaysian Public Listed Companies, International *Journal of Economics and Management Sciences* 1(2): 32-41.

Ugoani, J. N. (2012). *Poor Credit Risk Management and Bank Failures in Nigeria*. Retrieved 24 December 2013 from: http://ssrn.com/abstract=2185013.

Wahlstroom, G. (2009). *Risk management versus operational action: Basel II in a Swedish context*. Retrieved from http://www.swidishbank.com

Woon, L. F., Azizan, N. A., & Samad, M. F. A. (2011). A Strategic Framework For Value Enhancing Enterprise Risk Management. *Journal of Global Business and Economics*, 2(1), 23-48.

Yates, H. (2011). *Insurance and Banking: The butterfly effect Risk Management* Professional, 3, 26-27.

Yazid, A. S., Hussin, M. R., and Daud, W. N. W. (2011): *An Examination of Enterprise Risk Management (ERM) Practices among the Government-Linked Companies (GLCs) in Malaysia*, International Business Research 4(4): 94-103.

Yazid, A. S.; Hussiri, M. R.; & Razali, A. R. (2009). An Empirical Study of Risk Management Best Practices in Public Limited Companies in Malaysia. *The journal of Risk Management and Insurance*, 13, 1-22.

Zadeh, M. G. (2010). *Risk Management Implementation in the Iranian Construction Industry from Contractor's Perspective*. Unpublished master's theses, Universiti Teknologi Malaysia, Faculty of Civil Engineering.

Zahangir, A. and Masukujj, A. (2011). Risk Management Practices: A Critical Diagnosis of Some Selected Commercial Banks in Bangladesh. *Journal of Business and Technology*, Vol.VI

Zhou, H.; and Zhang, H. (2010). *Dynamic Risk Management System for Large Project Construction in China*. Proceedings of the GeoFlorida 2010 Conference 365(202).

Appendix A: Survey Instrument

Modelling Risk Management in Banks: Examining Why Banks Fail

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A higher degree. A higher purpose.

Survey Instrument

CONSENT FORM FOR PAPER PARTICIPANTS

Introduction:

You are invited to take part in a research study on "Modelling Risk Management in Banks". The aim of the study is to determine the causes of persistent bank failures using Nigeria as a case study. The researcher is inviting experienced bankers in senior management positions who have reasonable experience in risk management processes in banks to be in the study. This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Mr. Daniel Okehi who is a Ph.D. Management Student of Walden University

Background Information:

The purpose of this study as mentioned above is to determine why there have been persistent Bank failures in Nigeria and to know whether ineffective risk management, poor corporate governance and nonadherence to regulations are the root causes.

Procedures:

If you agree to be in this study, you will be asked to:

Complete the Survey Instrument by answering all the questions.

- When returning the completed forms back to the Researcher you need not give your name, phone number or e-mail address.
- For each question, five columns are provided(SA,A,PA,D,SD) and you are expected to tick one only
- Use the enclosed self addressed and stamped envelope to return the completed Survey instrument or drop it at the locked box at the Reception of your bank.
- The time frame for the completion and return of the survey instrument is between twenty minutes and one hour.

Here are some sample questions:

To what extent are the independent variables related to the dependent variable, that is, risk management, corporate governance, regulation to Return On Equity (ROE)? Are there other silent causes for persistent banks failures in Nigeria? Is ineffective risk management, poor corporate governance and nonadherence to regulation the main causes of bank failure? There appears to be variance in contribution to bank failures by ineffective risk management, poor corporate governance and nonadherence to regulation?

Voluntary Nature of the Study:

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one in the commercial banks, CBN and NDIC will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:

Being in this type of study could involve some risk of minor discomforts that can be encountered in daily life, such as stress, fatigue or becoming upset. Fundamental benefit of the study is that the results of the study will be used to help identify bank failures which could lead to action in reducing bank failures in the future. However being in this study would not pose risk to my safety or wellbeing. The banks currently operating in Nigeria would be the main beneficiaries followed by the Regulators and the general public whose funds kept in banks would be safe. The benefits of the study would in addition help to inculcate in bank operators the culture of effective risk management and to keep the funds of Depositors safe in banks. In line with the research questions, the study will help in identifying the root and the silent causes of persistent bank failures and also to know whether there exists any relationship between the main variables of the study.

Payment:

No monetary payment at all.

Privacy:

Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by putting them in bank vault. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via phone or e-mail danokehi@yahoo.com. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is +16123121210. Walden University's approval number for this study is..... and it expires on.....**.**

KEEPING BANKS FREE FROM RISKS AND REDUCE LOSSES

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement by helping to keep banks free from risks and reducing bank losses. By completing a survey, consent is implied.

Implied Consent:

In order to protect Participants privacy, signatures are not being collected. Completion of the survey will indicate consent to participate.

CONSENT FORM FOR ONLINE PARTICIPANTS

Introduction:

You are invited to take part in a research study on "Modelling Risk Management in Banks". The aim of the study is to determine the causes of persistent bank failures using Nigeria as a case study. The researcher is inviting experienced bankers in senior management positions who have reasonable experience in risk management processes in banks to be in the study. This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Mr. Daniel Okehi who is a Ph.D. Management Student of Walden University.

Background Information:

The purpose of this study as mentioned above is to determine why there have been persistent Bank failures in Nigeria and to know whether ineffective risk management, poor corporate governance and nonadherence to regulations are the root causes.

Procedures:

- If you agree to be in this study, you will be asked to:
- Complete the survey instrument by answering all the questions online via the web site provided
- You need not give your name, phone number or e-mail address while completing the form

- For each question five columns are provided(SA,A,PA,D,SD) and you are expected to tick one
- For those completing the Survey instruments on-line through the survey monkey web site provided, need not use their e-mail addresses but use the web page provided.
- The time frame for the completion and return of the survey instrument online is between twenty minutes and one hour

Complete the Survey instrument by answering all the questions online via the web site provided

You need not give your name, phone number or e-mail address while completing the form.

For each question five columns are provided(SA,A,PA,D,SD) and you are expected to tick one

For those completing the survey instrument on-line through the survey monkey web site provided, need not use their e-mail addresses but use the web page provided.

The time frame for the completion and return of the survey instrument online is between twenty minutes and one hour

Here are some sample questions:

To what extent are the independent variables related to the dependent variable, that is, risk management, corporate governance, regulation to Return On Equity (ROE)? Are there other silent causes for persistent banks failures in Nigeria? Is ineffective risk management, poor corporate governance and nonadherence to regulation the main causes

of bank failure? There appears to be variance in contribution to bank failures by ineffective risk management, poor corporate governance and nonadherence to regulation?

Voluntary Nature of the Study:

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one in the commercial banks, CBN and NDIC will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:

Being in this type of study could involve some risk of minor discomforts that can be encountered in daily life, such as stress, fatigue or becoming upset. Fundamental benefit of the study is that the results of the study will be used to help identify bank failures which could lead to action in reducing bank failures in the future. However being in this study would not pose risk to my safety or wellbeing. The banks currently operating in Nigeria would be the main beneficiaries followed by the Regulators and the general public whose funds kept in banks would be safe. The benefits of the study would in addition help to inculcate in bank operators the culture of effective risk management and to keep the funds of Depositors safe in banks. In line with the research questions, the study will help in identifying the root and the silent causes of persistent bank failures and also to know whether there exists any relationship between the main variables of the study.

Payment:

No monetary payment at all.

Privacy

Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by putting them in bank vault. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via phone or e-mail danokehi@yahoo.com. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is +16123121210. Walden University's approval number for this study is..... and it expires on.....

KEEPING BANKS FREE FROM RISKS AND REDUCE LOSSES

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement by helping to keep banks free from risks and reducing bank losses. By completing a survey, consent is implied.

Implied Consent:

In order to protect Participants privacy, signatures are not being collected. Completion of the survey will indicate consent to participate.

OnlineLinktotheSurvey:www.//brickredconsult.com.ng

Survey instrument

INTRODUCTION

Dear Respondent,

My name is Daniel Okehi, a Ph.D. Management Student of Walden University U.S.A. The aim of my dissertation is to determine why there have been persistent bank failures, using Nigeria as a test study and to know whether ineffective management of the inherent risks in banks, coupled with poor corporate governance and nonadherence to regulations are the root causes. In evaluating the inherent risks which are classified into five (credit risk, market risk, liquidity risk, operational risk and solvency risk) the study proffers a holistic and contemporary solution under an ERM environment that could assist in reducing losses in banks to guarantee their survival. The study also aims at creating awareness for bank operators on how to identify the inherent risks, adequately measure them, evaluate, monitor, and control them by allotting available capital to create cushion against possible losses. In addition, the study would determine whether there is a relationship between the four main constructs of the study: risk management, regulation, corporate governance and bank performance. The study is expected to unveil other silent causes contributing to incessant bank failures. It would be greatly appreciated if you could complete the survey instrument as soon as possible and return same to me by post using the self addressed envelope enclosed or through the online survey host site (a survey monkey) indicated on the Consent Form above meant for those intending to complete the Survey instrument online.

Please be assured that information provided by your good self will be used purely for academic purposes, strictly anonymous and will be treated with strict confidentiality. Your response will greatly contribute to the quality of this study as a participant.

Whilst I look forward to your participation in this study, I thank you for your co-operation.

Yours Sincerely,

Daniel Okehi

SECTION A
Participant's Bio Data

Instruction

Please tick the appropriate options

1. Age: …… [18 - 30] [31- 40] [41- 50] [51 & above]
2. Gender …… Male…… Female……
3. Educational Qualification: WASC/GCE…... OND/NCE…… Bsc/HND……
   MSc/MBA…… PhD…… Others……
4. Working Experience: 1-5yrs……. 5-10yrs…… 11-15yrs……
   16-20yrs…… 21-25year.....
5. Occupational Status: Manager…… Snr. Manager…… AGM/DGM……
   ED/Director…… MD/CEO…… Others……
6. Your Nationality: ……

SECTION B

General Risk Management Issues

(Research Question 1)

Please indicate by ticking appropriate column, if you Strongly Agree (SA), Agree (A), Partly Agree (PA), Disagree (D) or Strongly Disagree with the following:

		SA	A	PA	D	SD
		5	4	3	2	1
1.	The inherent risks that banks face in their operation could be grouped into five: Credit risk, liquidity risk, market risk, operational risk and solvency risk.					
2.	Ineffective risk management in banks coupled with poor corporate governance practices and nonadherence to regulations are the root causes of persistent bank failures.					
3.	Banks paying attention to the inherent risks in their operation and knowing how these risks are identified, measured, analyzed and controlled on ERM basis could help in enhancing banks' performance.					
4.	Capital inadequacy of banks which is usually worsened by the huge losses suffered by banks in the past years could be a major cause of the persistent bank failures.					
5.	Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and strategy for maintaining their capital levels.					
6.	The Basel Committee on Banking Supervision (BCBS) formulating broad supervisory and guidelines, recommendations and best practices on issues of risk management helps in reducing the rate of bank failures all over the world.					
7.	The BCBS capital measurement systems captured in Basel I and II and strengthened in Basel III helped banks in reserving capital against the risks they bear.					
8.	Credit risk still stands the largest source of risk facing banking institutions and for them to properly manage the credit risks means measuring them at portfolio level to determine the amount of capital needed to hold as a cushion against extreme losses.					

X X : Question 2 here is the actual research question 1 in the study.

SECTION C

Corporate Governance and Banking Regulations

(Supporting Research Question 1, 2 and 3)

	Return on Equity (ROE) which is taken in this study as the Dependent Variable could be determined by the Value at Risk (VaR), Net Profit Margin (NPM) and Capital Adequacy Ratio (CAR).					
	In Nigeria, as a developing economy, the issues relating to strong prudential regulation and supervision, effective market discipline and strong leadership covering corporate governance and management are critical for the stability of the financial system.					
	Critical gaps in regulatory and supervisory frameworks of a financial system could escalate incidents of bank failures.					
	Governments, the world over, usually put in place two safety nets to cushion the shock of bank failures, that is, the Central Bank acting as the lender of last resort; two, the Deposit Insurance when a bank actually fails. The bailout appears socially justifiable on tax payers but not on shareholders.					
	Lack of co-ordination among regulators in Nigeria and incomplete or non comprehensive regulations on the critical causes of bank crises often lead to actual failures of banks.					
	Nigerian Bank Regulators and Supervisors did not appropriately follow the regulatory framework of Basel Committee on Bank Supervision (BCBS) and were not proactive enough.					
	Uneven supervision of banks and inadequate enforcement of the available rules worsened the problem of the banking crisis in Nigeria.					
	Introduction of a macro-prudential approach to banking regulations definitely would help banks take proactive measures in the management of risks associated with monetary operations.					

SECTION D

Questions testing the relationship between the four Major Constructs: Risk Management, Corporate Governance, Regulation & Bank Performance.

(Research Question 3)

	Statement	SA	A	PA	D	SD
		5	4	3	2	1
	The inability of Directors of Banks to implement various oversight functions could be a major cause of bank failures.					
	Fraud and insider abuse contribute up to 35% of bank failures all over the world especially in a developing countries like Nigeria.					
	Corporate Governance practices especially the adequate functioning of Board Committees like Audit Committee, Compensation, Nomination, Compliance, Risk Management, Executive and Insurance Committees are not strictly adhered to by Nigerian Banks.					
	Nigerian banks seem not to be complying appropriate with the disclosure policies and practices expected of banks the world over especially as required in the annual report covering issues like risk management system, related party transactions etc.					
	Ownership structure especially where the concentration is significant remains a key determinant of good corporate governance.					
	Capital Adequacy Ratio (CAR) as a proxy for Corporate Governance could be determined by Capital Ratio (CR), Cash Claim on Central Bank (CCC), Secondary Reserve Ratio (SRR), Loan Loss Provisioning (LLP), Fixed Asset and Inventory (FAI) and Ownership Structure (OWN)					

	Statement	SA	A	PA	D	SD
		5	4	3	2	1
1.	Fundamental parameters such as efficient operating structure, dynamic ownership structure and focused management could enhance risk management in banks.					
2.	Adequate capitalization of banks play very important role in cushioning bank losses resulting from poor management of the inherent risks in banks.					
3. x	There is a positive relationship between efficient risk management, adequate corporate governance, adherence to regulations and bank performance in banking operation.					
4.	Inter-relationship between risk management and bank performance explains the trade-off between risk and return which is indicative that when banks manage their risks better, they will be able to enhance their performance.					
5.	Adoption of Enterprise Risk Management concept by banks would increase their performance and guarantee their survival.					
6.	Ownership structure, leverage and size of a bank would affect the Enterprise Risk Management application/performance of any bank.					
7.	Enterprise Risk Management culture in a bank creates the platform on which a contemporary risk management technique can flow.					
8.	Poor macro economic situation in a country could escalate credit risk exposure to banks, thus confirming that credit risk usually becomes low during economic boom and very high in adverse economy.					

Section E

Variance in the Contribution of each of the four Major Constructs to Bank Failures

General: (Research Question 2)

	Statement	SA	A	PA	D	SD
		5	4	3	2	1
1. x	There appear to be significant variation in the level of contribution to bank's failures by ineffective risk management, poor corporate governance and nonadherence to regulation.					
2.	It is possible that a significant failure of one of the major factors could lead to financial distress in a bank that may cause its failure.					
3.	A significant failure of each of the three major factors at the same time in a bank would lead to financial distress of the bank.					
4.	There is a positive correlation between risk management, corporate governance, regulation and bank performance in the management of banks.					
5.	There is no significant difference in factors causing bank failures in developed and developing economies of the world since banking rules are the same all over.					

xx : Question 1 here is the actual research question 2 in the study

Appendix B: Secondary Data Tables and Figures

Insured Banks Capital Adequacy

Capital Adequacy Indicators	Year	
	2010*	**2011**
Total Qualifying Capital (N' billion)	424.46	1,900.31
Adjusted Shareholders' Funds (N' billion)	312.36	1,934.93
Capital to Total Risk Weighted Asset Ratio (%)	4.06	17.71
Number of Banks	24	20

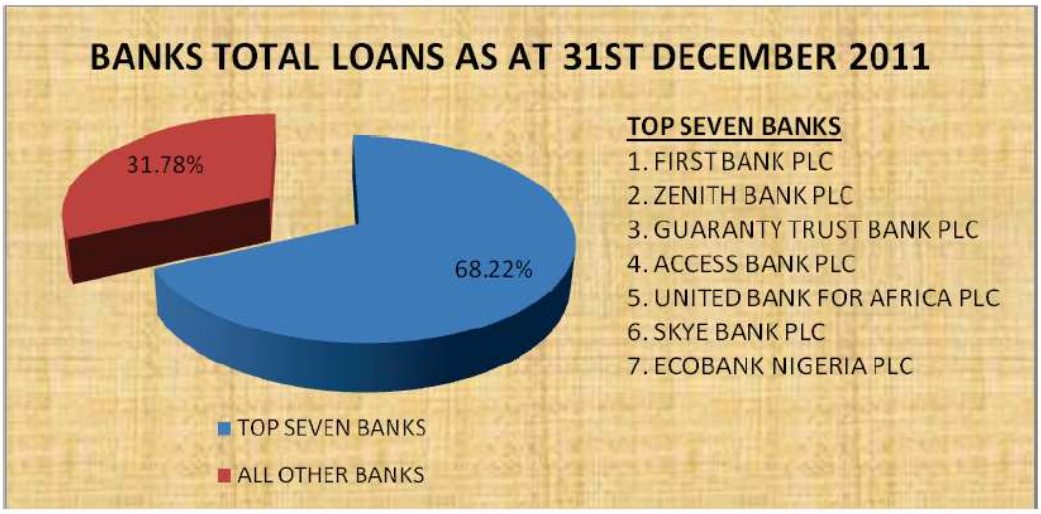
Source: NDIC 2011 Annual Report

Asset Quality of Insured Banks

Item	Year	
	2010*	**2011**
Total Loans (N, billion)	7, 166.76	7,312.72
Non Performing Loans (N, billion)	1, 077.66	425.96
Ratio of Non Performing Loans to Total Loans (%)	15.04	5.82
Ratio of Non Performing Loans to Shareholder's Funds (%)	250.85	17.13

Source: NDIC 2011 Annual Report

Average Liquidity Ratios of Banks



Earnings and Profitability Indicators

Indicators	Year	
	2010*	2011
Profit Before Tax (N, billion)	607.34	-6.71
Net Interest income (N, billion)	824.62	817.14
Non Interest income(N, billion)	462.76	845.65
Interest Expenses (N, billion)	616.31	544.21
Operating Expenses (N, billion)	932.53	1,788.37
Yield on Earning Assets (%)	11.24	10.05
Return on Equity (%)	162.98	(0.28)
Return on Assets (%)	3.91	(0.04)

Source: NDIC 2011 Annual Report

Items	Year	
	2010*	2011
Average Liquidity Ratio	51.77	65.69
Loans and Advances to Deposit Ratio	59.23	55.95
No of Banks with Less than the 30% minimum Liquidity ratio	1	Nil

Liquidity Ratio of Insured Banks as at December 2010

Source: NDIC 2011 Annual Report

Insured Bank's Structure of Asset

Assets	Percentage Shares as 31st December (%)	
	2010	2011
Cash and Due from Other Banks	10.70	14.21
Inter-Bank Placements	6.22	2.61
Total Short Term Investment	6.09	17.11
Other Short Term Funds	1.66	1.63
Net Loans and Advances/leases	32.20	29.14
Total Investment	18.10	11.64
Other Assets (Net)	4.57	3.86
Net fixed Assets	3.63	2.97
Off-balance Sheet Engagements	16.83	16.83
Total Assets	100	100
Total Assets (inclusive of OBS) (N' Billion)	N18,661.27	N21,891.56

Source: NDIC 2011 Annual Report

Insured Banks' Structure of Liabilities in 2010 & 2011

Liabilities	Percentage Share as at December (%)	
	2010	2011
Total Deposits	58.07	56.33
Interbank Takings	4.82	0.78
Central Bank (Current Account)	0.03	0.30
Due To Other Banks	0.22	0.66
Total Certificates of Deposits	0.00	0.00
Other Liabilities	12.00	9.60
Long Term Loans	5.72	4.22
Equity Capital	1.34	1.01
Reserves	0.96	10.35
Off-Balance sheet Engagement	16.83	16.83
Total Liabilities	**100**	**100**
Total Value of Liabilities Inclusive of Off Balance Sheet Engagements	**₦18,661.27**	**₦21,891.56**

Source: NDIC 2011 Annual Report

Insured Banks' shareholders' Funds as at December 2010 and 2011

S/N	BANKS	SHAREHOLDERS'FUNDS (N' BILLION) 2010	SHAREHOLDERS' FUNDS (N' BILLION) 2011
1	Access Bank Nig. Plc.	167.61	187.79
2	Mainstreet Bank plc	(265.27)	35.82
3	Keystone Bank plc	(209.45)	45.24
4	Citibank Nigeria Ltd.	32.17	33.70
5	Diamond Bank Plc.	110.36	91.36
6	Ecobank Plc.	72.28	44.99
7	Fidelity Bank Plc.	128.62	104.88
8	First Bank of Nig. Plc.	312.21	318.78
9	First City Monument Bank Plc.	127.43	130.34
10	Guaranty Trust Bank Plc.	174.49	173.99
11	Skye Bank Plc.	90.14	99.64
12	Enterprise Bank plc	(92.40)	11.87
13	Stanbic IBTC Bank Plc	66.09	70.25
14	Standard Chartered Bank Ltd.	35.92	37.42
15	Sterling Bank Plc.	21.68	27.29
16	Union Bank Plc.	(281.49)	54.25
17	United Bank for Africa Plc.	174.69	141.68
18	Unity Bank Plc.	7.43	17.99
19	Wema Bank Plc.	(3.49)	11.61
20	Zenith Bank Plc.	290.80	296.04
	Total	**312.36**	**1,934.93**

Source: NDIC 2011 Annual Report

Insured Banks' Ownership Structure as at December 2011 and 2012

S/N	BANKS	OWNERSHIP STRUCTURE (%)		
		GOVT.	PRIVATE (NIGERIAN)	FOREIGN
1	Access Bank Plc	1	99	-
2	Citibank Nig Ltd	-	18.1	81.9
3	Diamond Bank Plc	-	100	
4	Ecobank Plc	-	100	
5	Enterprise Bank	100	-	-
6	Fidelity Bank		100	
7	First Bank Plc	-	100	-
8	First City Monument Bank		100	-
9	Guaranty Trust	-	100	-
10	Keystone Bank	100	-	-
11	Mainstreet Bank	100		-
12	Standard Chartered Bank Nig Ltd	-	-	100
13	Skye Bank Plc	1	50	49
14	Stanbic IBTC Bank Plc	-	47.31	52.69
15	Sterling Bank Plc	2.55	78.64	18.8
16	United Bank for Africa Plc	2.77	97.23	-
17	Union Bank Plc	19	21	60
18	Unity Bank Plc	35	65	-
19	Wema Bank Plc	10	90	-
20	Zenith Bank Plc	2.8	97.18	-

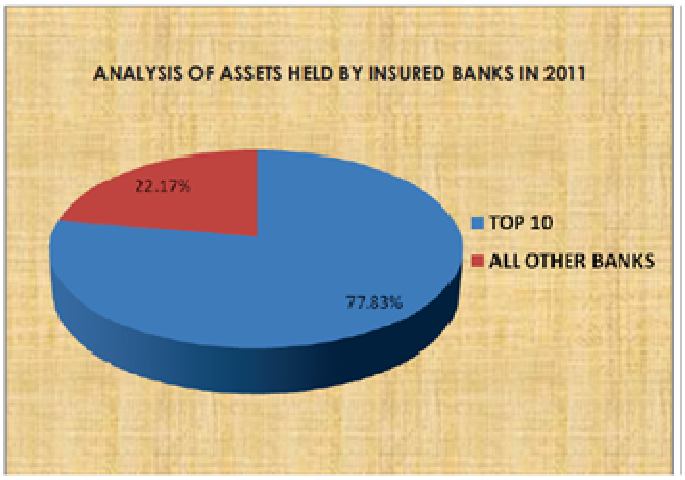
Source: NDIC 2011 Annual Report

Size of Assets of Top Insured Banks

Bank	2010		2011	
	Assets (N' Billion)	(%) of Total	Assets (N' Billion)	(%) of Total
Top 5	7,471.42	48.26	9,586.8	52.67
Top10	11,005.88	71.08	14,166.77	77.83
All Other Banks	4,478.51	28.92	4,034.70	22.17

Source: NDIC 2011 Annual Report

Analysis of Assets held be insured Banks in 2011



Source: NDIC 2011 Annual Report

Composition of Total Deposit Liabilities of Insured Banks in 2010 and 2011

Type of Deposit Liabilities	2010		2011	
	Amount (=N='M)	Percentage of Total (%)	Amount (=N='M)	Percentage of Total (%)
Savings Deposits	1,598,517.25	14.8	1,869,677.19	15.16
Demand Deposits*	4,515,167.62	41.7	7,632,847.12	61.91
Time/Term Deposits	4,723,459.18	43.5	2,827,739.47	22.93
TOTAL	**10,837,144.06**	**100.00**	**12,330,263.78**	**100.00**

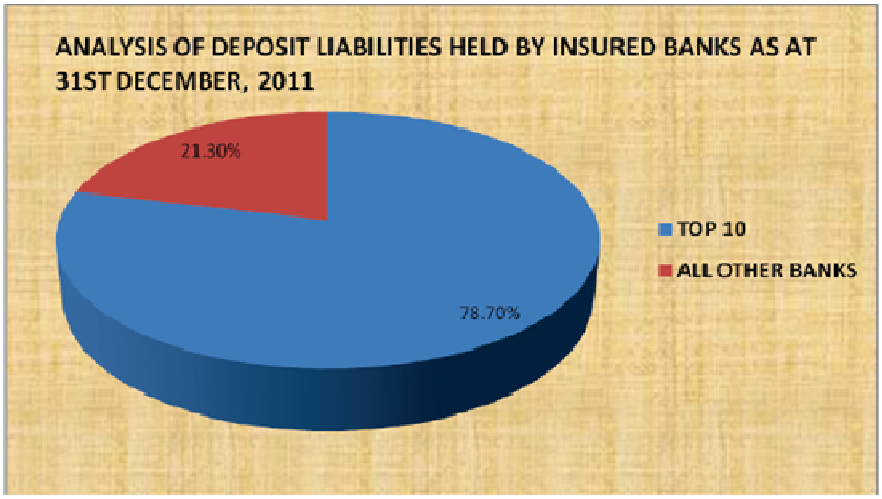
Source: NDIC 2011 Annual Report

Analysis of Deposit Liabilities held by the Big Insured Banks

Banks	2010		2011	
	Deposits (N'Billion)	Percentage of Total (%)	Deposits (N' Billion)	Percentage of Total (%)
Top Five Banks	5,056.15	46.7	6,486.26	52.6
Top Ten Banks	7,598.82	70.10	9,703.25	78.7
All Other Banks	3,238.32	29.90	2,627.01	21.3

Source: NDIC 2011 Annual Report

Analysis of Deposit Liabilities held by Insured Banks as at 31st December, 2011



source: NDIC 2011 Annual Report

Analysis of Insured Banks' Deposits by Tenor

Types of Deposits	2010		2011	
	Amount (N'M)	Percentage of Total (%)	Amount (N'M)	Percentage of Total (%)
Below 30 Days	8,095,768.03	76.30	9,476,428.75	76.86
Between 31 and 90 Days	1,524,308.78	14.4	1,524,723.04	12.37
Between 91 and 180 Days	356,454.67	3.4	548,806.39	4.45
Between 181 and 365 Days	301,321.54	2.8	510,295.62	4.14
Above 365 Days	332,318.88	3.1	270,009.98	2.18
TOTAL	**10,837,144.06**	**100**	**12,330,263.78**	**100**

Source: NDIC 2011 Annual Report

Summary of Deposit Money Banks' Activities (Naira million)

	2006	2007	2008	2009 /1	2010 /2	2006	2007	2008	2009 /1	2010 /2
Item	(N'Million)					Growth Rate (%)				
Reserves	670,463.8	659,631.3	910,673.4	655,864.4	583,822.1	30.1	-1.6	38.1	-28.0	-11.0
Aggregate Credit (Net)	4,066,689.2	7,076,493.0	9,897,796.2	11,340,061.5	11,217,244.8	57.1	74.0	39.9	14.6	-1.1
Loans and Advances	2,338,718.7	4,493,303.9	7,602,165.8	8,451,378.2	6,629,580.7	25.8	92.1	69.2	11.2	-21.6
Total assets	7,172,932.1	10,981,693.6	15,919,559.8	17,522,858.2	17,331,559.0	58.9	53.1	45.0	10.1	-1.1
Total Deposit Liabilities	3,245,156.5	5,001,470.5	7,960,166.9	9,150,037.7	9,784,542.4	59.4	54.1	59.2	14.9	6.9
Demand deposits	1,497,903.7	2,307,916.2	3,650,643.9	3,386,526.5	3,830,282.0	58.2	54.1	58.2	-7.2	13.1
Time, Savings & Foreign Currencies Deposits	1,747,252.8	2,693,554.3	4,309,523.1	5,763,511.2	5,954,260.5	60.4	54.2	60.0	33.7	3.3
Foreign Assets (Net)	704,482.4	696,248.4	1,279,622.9	1,071,082.3	1,134,332.8	60.1	-1.2	83.8	-16.3	5.9
Credit from Central Bank	62,991.4	49,741.6	132,195.3	409,159.1	418,714.0	47.6	-21.0	165.8	209.5	2.3
Capital Accounts	1,388,856.0	2,225,394.2	3,364,693.4	4,930,613.0	2,217,804.4	46.1	60.2	51.2	46.5	-55.0
Capital & Reserves	1,043,008.2	1,712,986.5	2,738,537.4	2,201,836.0	429,609.0	76.3	64.2	62.8	-21.0	-80.5
Other Provisions	345,847.8	512,407.7	576,156.0	2,728,777.1	1,788,195.5	-3.6	48.2	12.4	373.6	-34.5
Average Liquidity Ratio (%)	81.4	56.6	37.3	35.4	47.5	110.3	-30.5	-34.1	-15.8	4.8
Average Loan/Deposit Ratio (%)	96.8	83.3	86.8	88.3	77.6	26.2	-13.9	4.2	1.7	-12.1

Source: CBN 2010 Annual Report

Type of Frauds and Forgeries with Frequency 2011

S/N	Nature Of Fraud	Frequency
1	ATM Fraud	738
2	Fraudulent Transfer/Withdrawal of Deposit	331
3	Presentation of Forged Cheques	280
4	Outright Theft	240
5	Suppression of Customer Deposit	219
6	Fraudulent Conversion of Cheques	123
7	Non Dispensing Of Money But Registered By The Electronic Journal	112
8	Internet Fraud	108

Source: NDIC 2011 Annual Report

Insured Bank's Capital Adequacy

Capital Adequacy Indicators	Year	
	2012	2011
Total Qualifying Capital (N' billion)	2,183.19	1,900.31
Adjusted Shareholders' Funds (Tier I Capital) (N' billion)	2,150.32	1,934.94
Tier II Capital (N' billion)	234.55	201.74
Capital to Total Risk Weighted Asset Ratio (%)	18.07	17.71

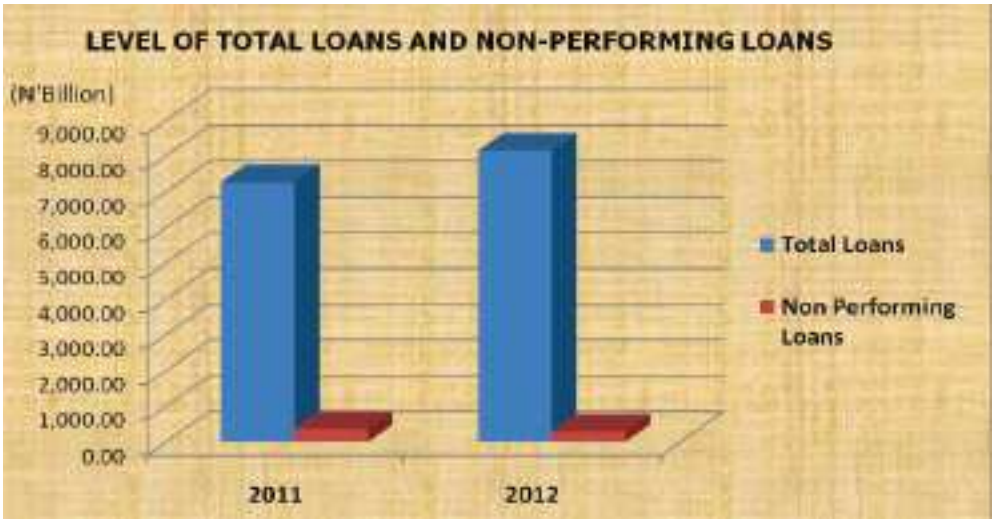
Source: Insurance and Surveillance Department, NDIC

** Total Qualifying Capital is made up of Tier 1 Capital, Tier 2 capital, Less Investment in Unconsolidated subsidiaries.*

Asset Quality of Insured Banks

Item	Year	
	2012	**2011***
Total Loans (N, billion)	8,150.03	7,273.75
Non Performing Loans (N, billion)	286.09	360.07
Ratio of Non Performing Loans to Total Loans (%)	3.51	4.95
Ratio of Non Performing Loans to Shareholder's Funds (%)	14.34	17.13

**Revised*
Source: Insurance and Surveillance & Dept., NDIC

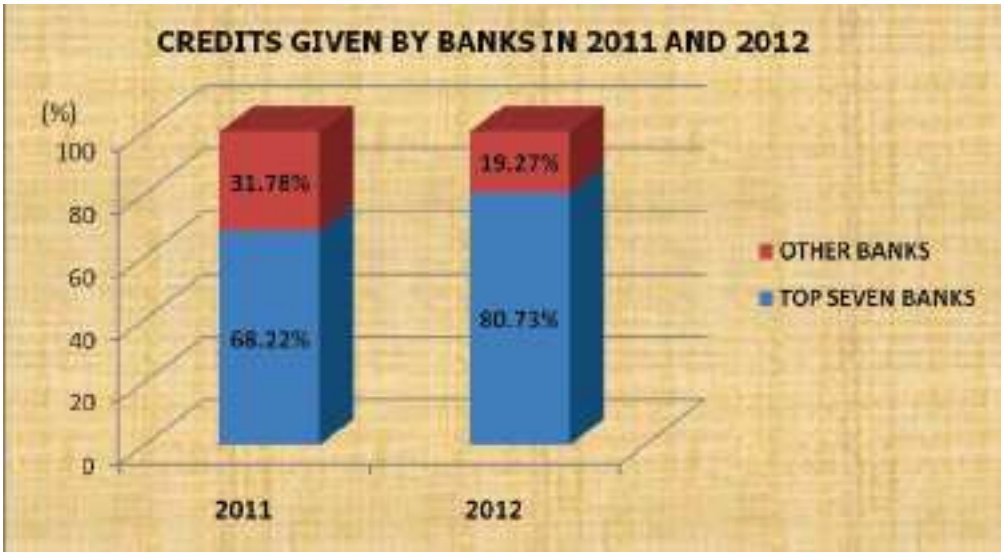


Source: NDIC 2012 Annual Report

Source: NDIC 2012 Annual Report

The top seven (7) DMBs in the banking industry accounted for 80.73% of total loans in
2012 as against 68.22% in 2011. These are as depicted in Charts 11C and 11D.

Source: NDIC 2012 Annual Report

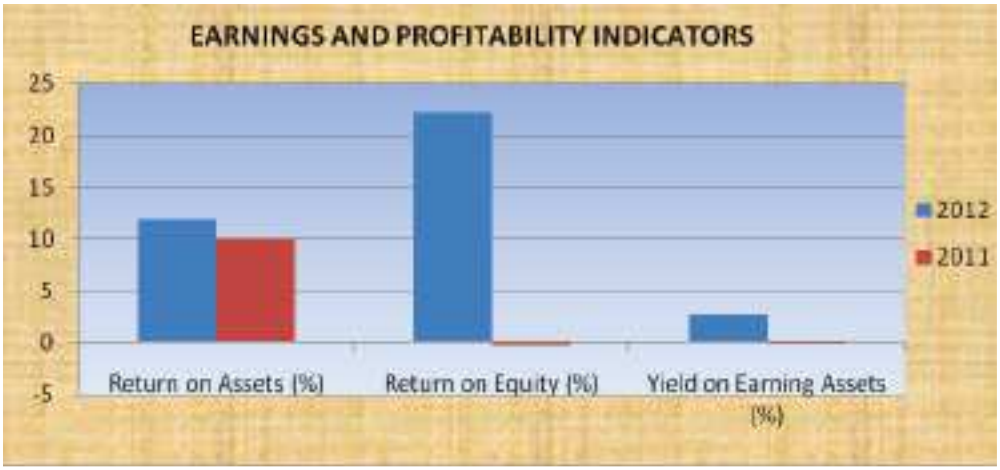


Source: NDIC 2012 Annual Report

Earnings and Profitability indicators

Indicators	Year	
	2012	**2011**
Profit Before Tax (?' billion)	525.34	(6.71)
Net Interest income (?' billion)	1,107.68	817.15
Non Interest income(?' billion)	575.75	845.65
Interest Expenses (?' billion)	635.68	544.21
Operating Expenses (?' billion)	1,193.28	1,788.37
Yield on Earning Assets (%)	11.92	10.05
Return on Equity (%)	22.20	(0.28)
Return on Assets (%)	2.62	(0.04)

**Source: Bank Returns*



Source: NDIC 2012 Annual Report

Liquidity position of banks as at 31st December 2012

Items	Year	
	2012	**2011***
Average Liquidity Ratio	68.01	69.29
Loans and Advances to Deposit Ratio	54.29	55.95
No of Banks with Less than the 30% minimum Liquidity ratio	Nil	Nil

**Revised*
Source: Insurance and Surveillance & Dept., NDIC

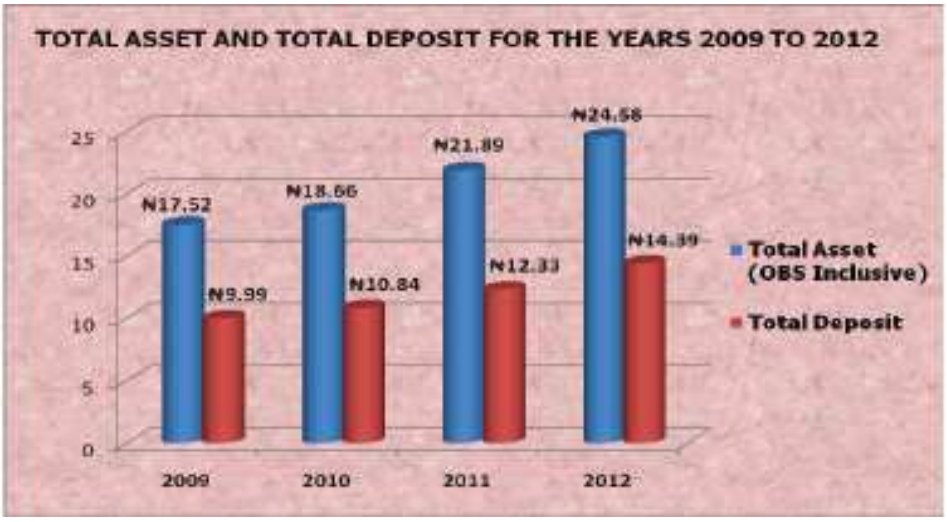
Source: NDIC 2012 Annual Report

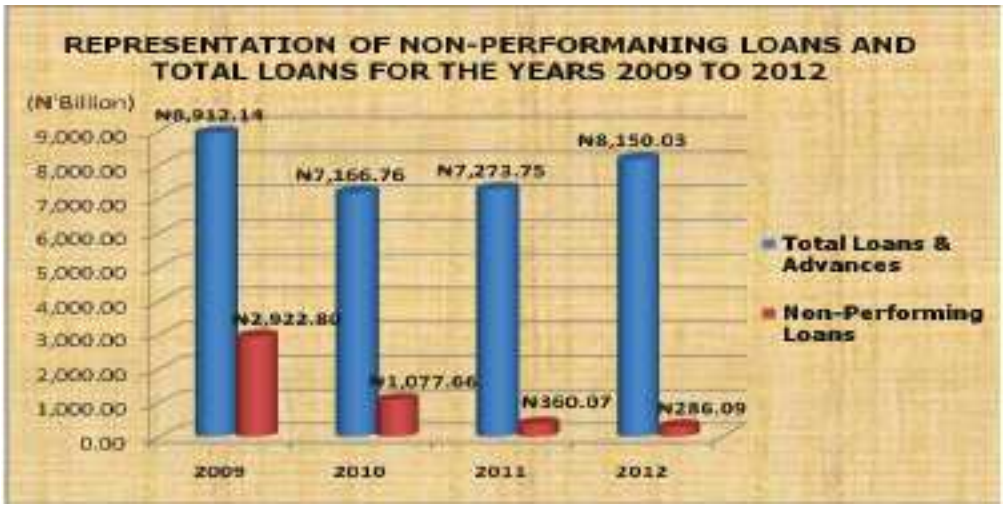
Selected performance indicators of banks for a period of four years (2009 to 2012)

S/N	DETAILS	2012	2011	2010	2009
1	Total Asset (OBS Inclusive) (?'Trillion)	24.58	21.89	18.66	17.52
2	Total Deposit (?'Trillion)	14.39	12.33	10.84	9.99
3	Total Loans & Advances (?'Billion)	8,150.03	7,273.75	7,166.76	8,912.14
4	Non-Performing Loans (?' Billion)	286.09	360.07	1,077.66	2,922.80
5	Profit Before Tax (?' Billion)	525.34	-6.71	607.34	-1,377.33
6	Adjusted SHFs (Tier I Capital) (?'Billion)	2,150.32	1,934.93	312.36	448.99
	Ratios:				
7	Non-Performing Loans/Total Loans	3.51%	4.95%	15.04%	32.80%
8	Non-Performing Loans/SHFs	14.34%	17.13%	250.85%	135.70%
9	Capital Adequacy	18.07%	17.71%	4.32%	10.24%
10	Average Liquidity Ratio	68.01%	69.29%	51.77%	44.45%
11	Loans/Deposit Ratio	54.29%	55.95%	66.13%	89.21%
12	ROA	2.62%	-0.04%	3.91%	-9.28%
13	ROE	22.20%	-0.28%	162.98%	-64.72%

Source: Bank Returns

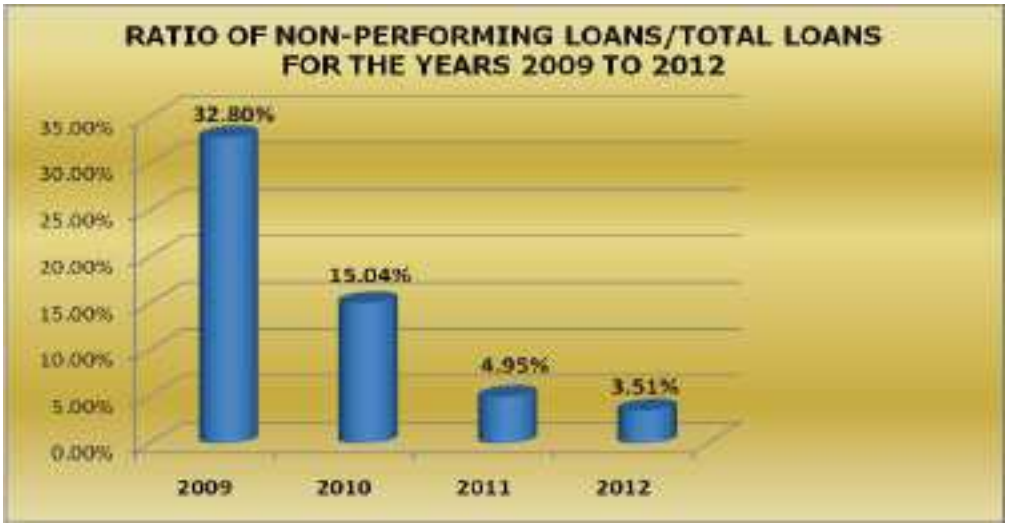
Source: NDIC 2012 Annual Report



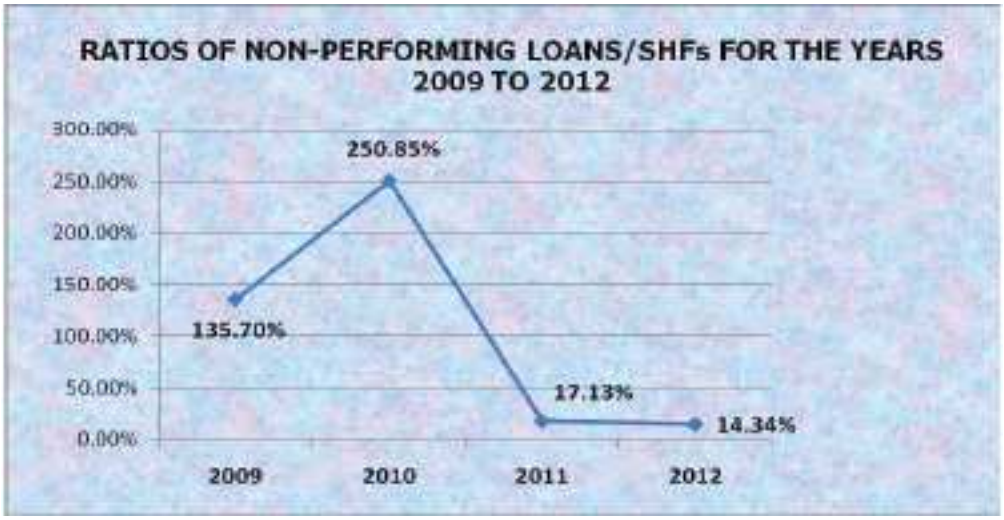


Source: NDIC 2012 Annual Report

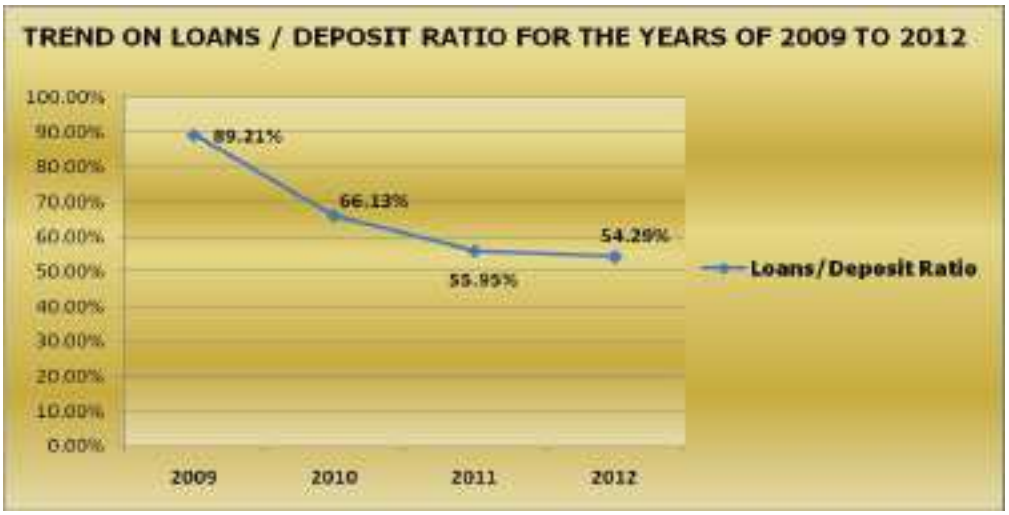
Source: NDIC 2012 Annual Report



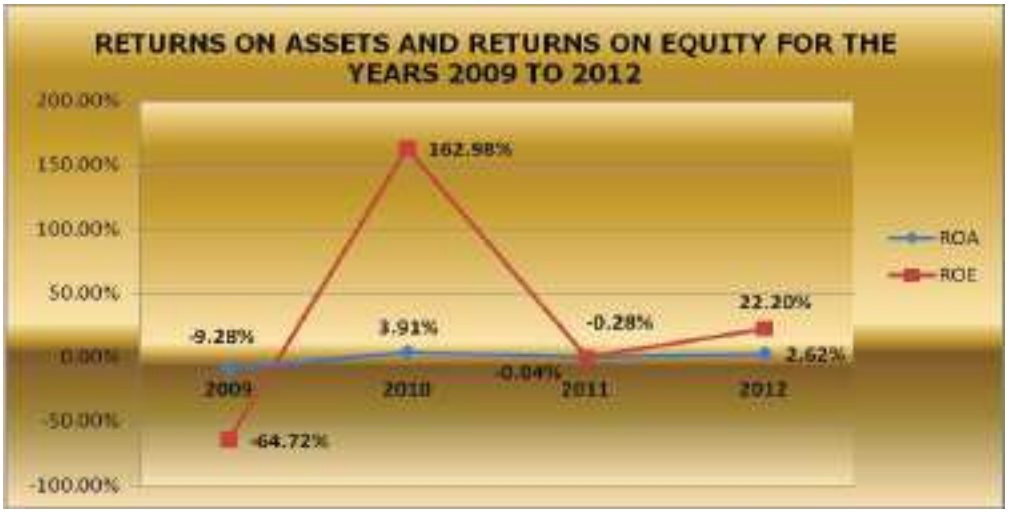
Source: NDIC 2012 Annual Report



Source: NDIC 2012 Annual Report



Source: NDIC 2012 Annual Report



Source: NDIC 2012 Annual Report

Banks shareholders' funds as at December 2011 and 2012

S/N	BANKS	SHAREHOLDERS' FUNDS (? 'BILLION) 2011	SHAREHOLDERS' FUNDS (? 'BILLION) 2012
1	Access Bank Nig. Plc.	187.79	209.35
2	Mainstreet Bank Ltd.	35.82	32.76
3	Keystone Bank plc.	45.24	35.17
4	Citibank Nigeria Ltd.	33.70	36.11
5	Diamond Bank plc.	91.36	106.37
6	Ecobank Nigeria plc.	44.99	127.41
7	Fidelity Bank Plc.	104.88	132.74
8	First Bank of Nig. Plc.	318.78	279.80
9	First City Monument Bank plc.	130.34	119.14
10	Guaranty Trust Bank plc.	173.99	213.69
11	Skye Bank plc.	99.64	102.98
12	Enterprise Bank Ltd.	11.87	26.05
13	Stanbic IBTC Bank plc.	70.25	58.90
14	Standard Chartered Bank Ltd.	37.42	59.83
15	Sterling Bank plc.	27.29	39.28
16	Union Bank plc.	54.25	239.71
17	United Bank for Africa plc.	141.68	170.06
18	Unity Bank plc.	17.99	38.50
19	Wema Bank plc.	11.61	9.37
20	Zenith Bank plc.	296.04	331.95
	Total	**1,934.93**	**2,369.17**

Banks ownership structure as at 31 December 2012

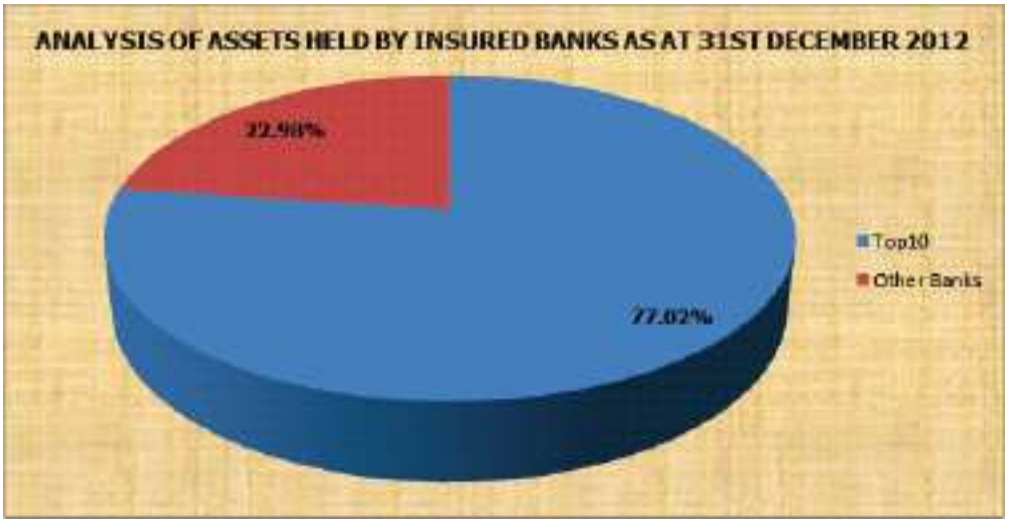
S/N	BANKS	OWNERSHIP STRUCTURE (%)		
		GOVT.	PRIVATE (NIGERIA)	FOREIGN
1	Access Bank Plc	1	99	-
2	Citibank Plc	-	18.1	81.9
3	Diamond Bank Plc	0.16	99.7	0.14
4	Ecobank Plc	-	100	-
5	Enterprise Bank	100	-	-
6	Fidelity Bank	-	100	
7	First Bank Plc	-	100	-
8	First City Monument Bank	0.47	99.53	-
9	Guaranty Trust	-	100	-
10	Keystone Bank	100	-	-
11	Mainstreet Bank	100	-	-
12	Standard Chartered Bank Nig Ltd	-	-	100
13	Skye Bank Plc	1	50	49
14	Stanbic IBTC Bank Plc	-	46.8	53.2
15	Sterling Bank Plc	0.43	83.42	16.15
16	United Bank for Africa Plc	2.75	97.25	-
17	Union Bank Plc	20	15	65
18	Unity Bank Plc	30.40	69.6	-
19	Wema Bank Plc	10	90	-
20	Zenith Bank Plc	2.6	97.4	-

Source: Bank Returns

Size of assets of top banks

Banks	2011		2012	
	Assets (? billion)	% of Total	Assets (? billion)	% of Total
Top 5	9,586.8	52.67	10,241.8	51.05
Top10	14,166.77	77.83	15,447.3	77.02
Other Banks	4,034.70	22.17	4,608.3	22.98

Source: Insurance and Surveillance Department, NDIC

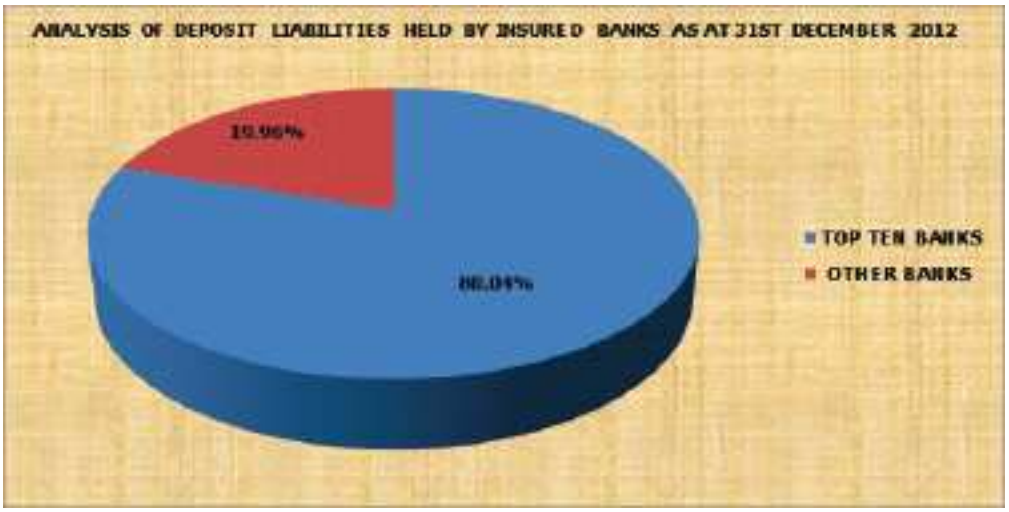


Source: NDIC 2012 Annual Report

Analysis of deposit liabilities held by banks

	2011		2012	
Banks	**Deposits**	**Percentage of Total (%)**	**Deposits (? 'Billion)**	**Percentage of Total (%)**
Top Five Banks	6,204.67	50.32	7,532.22	53.30
Top Ten Banks	8,788.11	71.27	11,515.05	80.04
Other Banks	3,542.15	28.73	2,871.43	19.96

Source: Insurance and Surveillance Department, NDIC

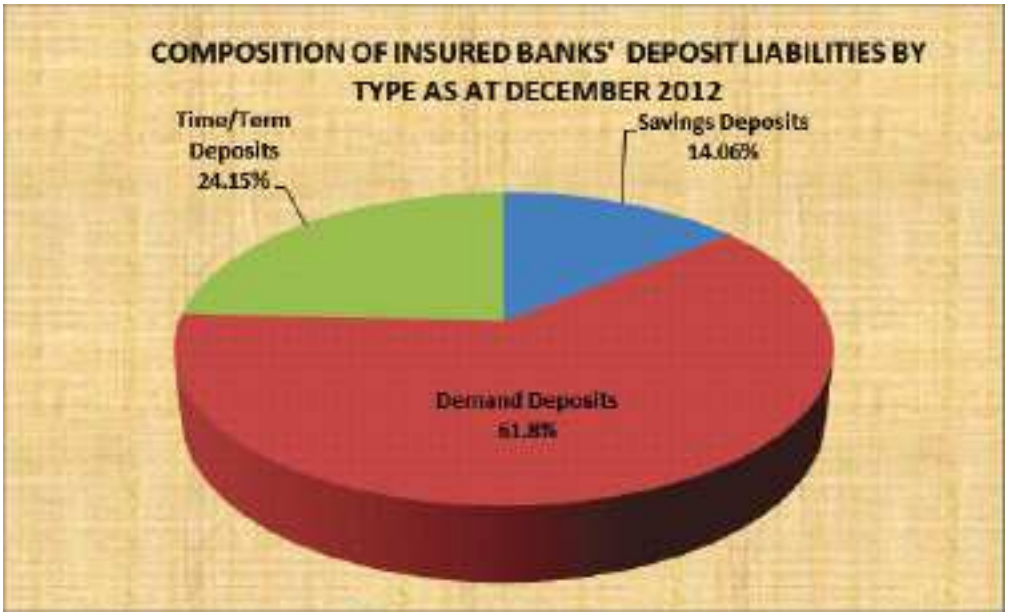


Source: NDIC 2012 Annual Report

Composition of total deposit liabilities of banks in 2011 and 2012

	2011		2012	
Types of Deposit Liabilities	**Amount (? 'M)**	**Percentage of Total**	**Amount (? 'M)**	**Percentage of Total**
Savings Deposits	1,869,677.19	15.16	2,022,199.71	14.06
Demand Deposits	7,632,847.12	61.91	8,890,609.99	61.8
Time/Term Deposits	2,827,739.47	22.93	3,473,666.84	24.15
TOTAL	**12,330,263.78**	**100.00**	**14,386,476.54**	**100.00**

Source: Bank Returns
** Included in Demand Deposits are Electronic Purse, Domiciliary Accounts and Other Deposits, Certificates and Notes*



Source: NDIC 2012 Annual Report

Returns of banks on frauds and forgeries in 2012

Quarter	Year	Total No. of Fraud Cases	Total Amount Involved (₦'m)	Total Expected Loss (₦'m)	Proportion of Expected Loss To Amount Involved (%)
1st	2012	709	2,825	1,370	48.50
	2011	612	2,301	837	36.38
2nd	2012	691	10,120	1,260	12.45
	2011	509	3,807	654	17.18
3rd	2012	932	2,049	1,098	53.59
	2011	577	2,207	776	35.16
4th	2012	1048	2,971	789	26.56
	2011	654	20,085	1,805	8.99
Total	2012	3380	17,965.00	4,517	25.14
	2011	2,352	28,400.00	4,072	14.33

Source: Bank Returns

Source: NDIC 2012 Annual Report

Source: NDIC 2012 Annual Report

Banks with highest fraud cases in 2011 & 2012

GROUP	2011		2012	
	Amount Involved (₦ M)	% Share	Amount Involved (₦ M)	% Share
Total For Top 10 DMBs	24,730,044	87.1	15,478,308	86.16
Total For All DMBs	28,400,855	100	17,965,000	100

Source: Bank Returns

Types of frauds and forgeries with frequency and actual loss sustained in 2012

S/N	NATURE OF FRAUD	FREQUENCY	ACTUAL LOSS SUSTAINED (₦ M)
1	ATM Fraud	1,539	0.082
2	Fraudulent Transfer/ Withdrawal Of Deposit	342	1.162
3	Internet Banking Fraud	314	0.712
4	Suppression Of Customer Deposit	224	0.282
5	Fraudulent Conversion Of Cheques	219	0.388
6	Presentation Of Stolen Cheques	196	0.011
7	Presentation Of Forged Cheques	118	0.52
8	Outright Theft By Staff	116	0.295
9	Unauthorized Credits	112	0.436
10	Duplication Of Bank Charges	60	0.063
11	Lodgement Of Stolen Warrants	55	0.003
12	Foreign Currencies Theft	41	0.100
13	Non Dispensing Of Money But Registered By The Electronic Journal	27	0.036
14	Diversion Of Bank Commissions & Fees	17	0.427
	TOTAL	**3,380**	**4.517**

Source: Bank Returns

Curriculum Vitae

Daniel Okehi

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BRICKRED CONSULT LTD
e-mail: danokehi@brickredconsult.com.ng

CAREER OBJECTIVE

To complete a doctorate in management and pursue a career in research especially on risk management as it affects banking operation.

EDUCATION **DATE**

University Of Lagos, Nigeria. June 1982
Bachelor of Science in Insurance (B.Sc)

University Of Lagos, Nigeria. June 1990
Master of Science in Management (M.Sc)

Walden University, USA. May 2014
Doctor of Philosophy in management in progress.(Ph.D)

Chartered Insurance Institute, London 1986
Associate of Chartered Insurance Institute (ACII) London

RELATED EXPERIENCE

❖ **BRICKRED CONSULT LTD**

2008 - DATE

POSITION: Managing Partner
RESPONSIBILITIES:

- Managing people and resources of the company.
- Giving direction and general consulting.

  Interfacing the company with the insuring publics and general management.

❖ **INSURANCE PHB LIMITED** **1998 - 2008**

(Formerly GTI Insurance Company Ltd)
POSITION: Managing Director/CEO
RESPONSIBILITIES:
Managing people and resources of the company

- Giving direction and business acquisition.
- System and Operation.
- Underwriting and Claim processes.
- Interfacing the company with the insuring public and general management.

❖ **LINKAGE ASSURANCE PLC** **1993 - 1998**
(Formerly Central Insurance Company Ltd)**POSITION**: Managing Director/CEO
RESPONSIBILITIES:

- Managing people and resources of the company.
- Giving direction and business acquisition.
- System and Operation.
- Underwriting and Claim processes.
- Interfacing the company with the insuring public and general management.

❖ **AFRICAN DEVELOPMENT INSURANCE COMPANY LTD 1990 - 1993**
POSITION: General Manager/COO
RESPONSIBILITY:

- Managing people and resources of the company.
- Giving direction and business acquisition.
- System and Operation.
- Underwriting and Claim processes.
- Interfacing the company with the insuring public and general management.

ADDITIONAL WORK EXPERIENCE

Enugu State University of Technology, Enugu, Nigeria
(ESUT Business School) 2000 - 2006.
Teaching Insurance and Management Courses in the MBA Class.

Community & Social Development Program (CSDP) World Bank Project – Imo State Chapter. 2008 - 2011.
Chairman, Board of Directors.

Rehoboth Microfinance Bank Limited. 2012 - Date.
Chairman, Board of Directors.

Brickred Consult Limited 2008 - Date
Chairman, Board of Directors.

RESEARCH INTEREST

- Risk Management in Banks.
- Reasons for persistent Bank failures.
- Risk management in Oil and Gas Insurance Operation

FELLOWSHIPS, HONORS AND AWARDS

- Fellow of Chartered Insurance Institute of Nigeria.
- First Prize Winner of the Inaugural Essay Competition of the Chattered Insurance Institute of Nigeria (CIIN)
- Lagos Business School - CEP 5.

RELEVANT ORGANIZATIONAL AFFILIATIONS

- Chartered Insurance Institute of Nigeria.
- Chartered Insurance Institute of London.
- Nigerian Institute of Management

RESEARCH SKILLS AND TECHNIQUES

- SPSS & analytical software.
- Programming in FORTRAN.

CONFERENCES

- Annual Insurance Conference of Chartered Insurance Institute, Nigeria 2012.
- Annual Insurance Conference of Chartered Insurance Institute, Nigeria. 2000-2011.
- African Insurance Organization Conference in Cape Town, South Africa 2011.
- Managing Insurance Companies in the 1990s organized by Assicuraziani Generali SPA Italy in Mugliano Veneto, Italy.

PUBLICATIONS

- Okehi D, 2009 "Local Content in Oil and Gas as it relates to Insurance". Journal of Management, 58:90 - 150.
- Insurance Marketing & Strategies, 2005, ISBN 978-006-582-X. Eightace Communications Limited, Nigeria.

EXTRA CURRICULAR ACTIVITIES

- Consultant to National Insurance Commission on Oil & Gas Insurance.
- Consultant to Imo state Government, Nigeria on Biometric Issues.
- Consultant to the Chartered Insurance Institute on Re-engineering Programs and Management of Companies.
- Consultant to Nigerian Insurers Association on Marketing, Underwriting and Reengineering Programs.
- Chairman Campaign Team of People Democratic Party, Owerri West LGA.
- Member Ikoyi Club, Lagos, Nigeria.

REFERENCES

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Brickred Insurance Brokers Ltd, Lagos and a national Leader in Nigeria.