

Effect of Credit Risk on Management and Banking Profitability of Deposit Money Bank Listed on Stock Exchange of West African Countries.

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ABSTRACT

This study sought to ascertain the relationship between Credit Risk on Management and Banking Profitability of Deposit Money Banks (DMBs) listed on Stock Exchange of two selected West African countries using a sample of twenty (20) Deposit Money Banks (DMBs). We covered 10 years period spanning from 2009 to 2018. Ex-Post Facto research design was employed while secondary data were collected and subjected to multiple regression and correlation analysis in order to achieve the study objectives. Three (3) specific objectives and hypotheses were tested and analyzed using descriptive statistics, Pearson correlation analysis and panel regression analysis. Our result revealed that credit risk has negative and significant effect on performance of banks in both Ghana and Nigeria using ROA model which was statistically significant at 1% level of significance while using ROE the negative effect of credit risk on banks performance was found to be statistically insignificant. This study recommended among others that, Deposit Money Banks in Nigeria and Ghana should comply with relevant provisions of the Banks and Other Financial Institutions Act (1999) as amended and the Prudential Guidelines. Additionally, deposit money banks should be well capitalized according to the size of their loan portfolio and regulatory requirement in order to cushion the loan loss from non-performing loans.

Introduction

Risks are uncertainties that are always evident in all business establishments that are in place with the sole aim of making profits. Financial institutions in their part are exposed to various kinds of risks among them credit risk, interest rate risk, liquidity risk, market risk, foreign exchange risk, currency risk, commodity risk and operational risk which are the most applicable risk to the banks (Cooperman, Mills & Gardner, 2000). Credit risk, also called default risk, is the risk associated with a borrower going into default that is not making payments as promised. There is always the possibility for the borrower to default from his or her commitments for one or the other reason resulting in crystallization of credit risk to the bank. These losses could take the form of outright default or alternatively, losses from changes in portfolio value arising from actual or perceived deterioration in credit quality that is short of default.

Credit risk is the exposure faced by banks when a borrower (customer) default in honoring debt obligations on due date at maturity (Ebrahim, Khalil, Kargbo, & Xiangpei, 2015). To this end, the need for financial risk management in the banking sector is inherent in the nature of banking business. However, in today's dynamic environment, banks are exposed to a large number of risk such as credit risk, liquidity risk, operational risk and macro economic instability, (inflation, weak growth) among others are the risks that creates some source of threat for banks survival and success.

BGL Banking Report (2015) cited by Kolapo, Ayeni and Oke (2017) stressed that the Nigerian banking industry has been strained by the deteriorating quality of its credit assets as a result of the significant dip in equity market indices, global oil prices and sudden depreciation of the Naira against global currencies. The poor quality of the bank's loan assets hindered banks to extend more credit to the domestic economy thereby adversely affecting economic performance. This prompted the Federal Government of Nigeria through the instrumentality of an Act of the National Assembly to establish the Asset Management Corporation of Nigeria (AMCON) in July, 2010 to provide a lasting solution to the recurring problems of non-performing loans that bedevilled Nigerian banks.

Financial risk is the unexpected variability or volatility of returns (Holton, 2004). It includes credit, liquidity and market risks which contribute to the volatility of financial performance (Tafri, Hamid, Meera, & Omar, 2009; Dimitropoulos, Asteriou, & Koumanakos, 2010). The hypothesis is that financial risk leads into failure of financial performance if it is not well managed. The financial crisis acquires unparalleled proportions and inflicted long-term damage on economies, countries and people. Every business decision and entrepreneurial act is connected with risk. Many risks are common to all financial institutions. From banks to microfinance institutions, these include credit risk, liquidity risk, market or pricing risk, operational risk, compliance and legal risk, and strategic risk (Tomak, 2013). In the view of Iwedi, and Onuegbu (2014), they reported that the banking industry had been hit by low quality loan assets as a result of poor economic and financial conditions in the country following the Great financial recession of 2008 and the negative oil price shock. Low debt recovery hindered banks from extending further credit into the economy which adversely affected productivity. Asset Management Corporation of Nigeria (AMCON) was then

established in 2010 as a monetary policy response to solve the aching problem of non-performing loans troubling the commercial banks. Then in 2016, Nigeria faces another economic crisis in the form of falling oil prices, poorly performing financial market and worrisome interest rate and exchange rate volatility, issues of credit defaults and non-performing loans have once again come to the forefront of economic discourse. Thus the issue of risk management is very important in any financial institution as it is because of this the financial crises that have hit financial institutions before would have been avoided if they had taken it into consideration thus risk management is considered a key factor for all companies that are in any business operation.

It is against this backdrop that this study seeks to examine the relationship between financial risk management on deposit money bank performance across two West African Countries

Deposit Money Banks play essential roles in the process of economic development. As financial intermediaries, they facilitate the mobilisation of financial resources from surplus units to deficit units, thereby ensuring efficient allocation and utilisation of funds. To play this crucial development role on a sustainable basis, commercial banks must have sound corporate risk management systems in place to forestall the possibility of insolvency, illiquidity and eventual failure. Therefore, the attempt to put an end to this economic degradation, that gave rise to the topic of this research study the effect of credit risk on management and banking profitability on Deposit money Bank listed on stock exchange of west African. The Nigerian and Ghana experience. Which is the main objective of this study, the specific objectives are;

- 1 To ascertain the effect of Credit Risk on performance of Deposit Money Banks of West African Countries.
2. To examine the effect of capital adequacy risk on performance of Deposit Money Banks of West African Countries.
3. To determine the effect of loan loss provision on performance of deposit money banks in West African Countries

Hypotheses

In line with the objectives of this study, the following null hypotheses were hypothesized:

- H₀₁:** Credit Risk has no significant effect on performance of Deposit Money Banks of West African Countries.
- H₀₂:** There is no significant effect between capital adequacy risk and performance of deposit money banks in West African countries.
- H₀₃:** Loan loss provision has no significant effect on performance of deposit money banks in West African countries.

Literature Review

According to Toutou and Xiaodong (2011), financial performance is a general measure of how well a bank generates revenues from its capital. It also shows banks overall financial health over a period of time, and it helps to compare different banks across the banking industry at the same time. The bank's financial performance generally can be recognized as its stability and profitability. The stability refers to its risk factors and profitability refers to its financial return.

Financial performance (FP) is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues (Shoukat & Nadeem 2014). Financial performance is the measuring of bank's policy and operations in monetary form. Suka (2010) looked at financial performance as a subjective measure of how well a firm uses its assets from primary mode of business to generate revenue. In order to assess the financial performance of deposit money banks there are variety of indicators which may be used. Some of the major financial performance indicators include Return on Asset (ROA), Return on Equity (ROE), Return on Capital Employed (ROCE), Earnings per Share (EPS) etc. (Bagh, Khan, Azad, Saddique, & Khan, 2017). This current study limits itself to only two financial performance measures such as Return on Asset and the Return on Equity as used by various scholars to measure the financial returns of deposit money banks across two countries Nigeria and Ghana.

To this end, we posit that performance of deposit money banks can be surrogated by **Return on Assets (ROA)**. The ROA, defined as net income divided by total assets, reflects how well a company management is using the company real investment resources to generate profits. ROA is widely used to compare the efficiency and operational performance of company as it looks at the returns generated from the assets financed by the company. The return on Assets (ROA) is a ratio that measures company earnings before interest & taxes (EBIT) against its total net assets. The ratio is considered an indicator of how efficient a company is using its assets to generate before contractual obligation must be paid. It is calculated as: **$ROA = EBIT / Total Assets$** . Return on assets gives an indication of the capital intensity of the banking industry, which will depend on the industry; banks that require large initial investment will generally have lower return on assets (Akong'a, 2014). Another measure of profitability is the return on equity (ROE), which indicates how effectively the management of the enterprise is able to turn shareholders' funds into net profit. It is the rate of return flowing to the company's shareholder.

Return on Equity (ROE)

The return on equity (ROE) is a measure of the profitability of a business in relation to the book value of shareholder equity, also known as net assets or assets minus liabilities. ROE is a measure of how well a company uses investments to generate earnings growth. The return on equity ratio or ROE is a profitability ratio that measures the ability of a firm to generate profits from its shareholder's investments in the company. In other words, the return on equity ratio shows how much profit each naira of common stockholders' equity generates. Return on equity (ROE) is calculated to see the profitability of owner's investments. It is calculated as annual net income after tax divided by shareholders' equity as a measure of performance. So a return on 1 means that every naira of common stockholders' equity generates 1 naira of net income. This is an important measurement for potential investors because they want to see how efficiently a company will use their money to generate net income. ROE is also an indicator of how effective management is at using equity financing to fund operations and grow the company.

$$ROE = \frac{Net\ Income}{Shareholder\ Equity} \times \frac{100}{1}$$

ROE is especially used for comparing the performance of companies in the same industry. As with return on capital, a ROE is a measure of management's ability to generate income from the equity available to it. ROEs of 15-20% are generally considered good (Valix & Peralta, 2018). ROEs are also a factor in stock valuation, in association with other financial ratios. In general, stock prices are influenced by earnings per

share (EPS), so that stock of a company with a 20% ROE will generally cost twice as much as one with a 10% ROE. The benefit of low ROEs comes from reinvesting earnings to aid company growth. The benefit can also come as a dividend on common shares or as a combination of dividends and company reinvestment. ROE is less relevant if earnings are not reinvested (Valix & Peralta, 2018).

Credit Risk

Credit risk has been identified by Basel Committee as a main source of risk in the early stage of Basel Accord. The Basel Committee on Banking Supervision (BCBS) defined credit risk as the probability that a bank borrower will fail to meet its obligations in accordance with agreed terms or the possibility of losing the outstanding loan partially or totally due to credit events (Iwedi, & Onuegbu, 2014). Poor credit administration reduces bank profitability and leads to bank distress and/or failure (Osuka, & Amako, (2015). The aim of credit risk management is to maximize a bank's risk adjusted rate of return. This can be achieved by maintaining credit risk exposure within acceptable parameters. Effective management of credit risk is inseparably linked to the development of banking technology which enables high speed loan decision making and simultaneously reduce the cost of controlling credit risk. This requires a complete base of partners and contractors (Das, & Ghosh: 2007). Credit risk arises when an obligor fails to perform its obligations under a trading or loan contract or when its ability to perform such obligations is impaired resulting in an economic loss to the bank (CBN, 2000). It does not only arise when a borrower defaults on re-payment of a loan or settlement of principal and interest, but also when its repayment capability declines. Ojo (2010) defined credit risk as the probability that a payment will not be fully settled because the debtor becomes insolvent. The issue of credit risk in the bank lending activities is of serious concern to the bank authorities and regulators because of the high levels of perceived risks resulting from some of the characteristics of clients and their business environment, which can easily cause banks symptomatic distress. Given the strong association between bad credit risk policy, inadequate internal supervision and weak management, bad credit risk management typified by poor lending practices could be taken as the most serious causes of distress in the Nigerian and Ghana financial service industry. Poor management of credit risk leads to the accumulation of non-performing loans (NPLs), which has become a serious problem in the Nigerian and Ghana banking industry.

Capital Adequacy

Capital adequacy is the amount of capital hold as required by financial regulator, to guarantee the level of capital that banks have to sustain operating losses while honoring withdrawals. It is a measure of the amount of bank's capital expressed as a percentage of the risk weighted exposure. Capital is one of the bank specific factors that influence the level of bank profitability. It is the amount of funds available to support the bank's business and act as a buffer in case of adverse situations (Athanasoglou, Brismmix & Delis; 2005). Banks capital creates liquidity for the bank due to the fact that deposits are most fragile and prone to bank runs and it reduces the chance of financial distress (Diamond, 2000). However, its drawbacks are that it induces weak demand for liability as the cheapest sources of fund Capital adequacy is the level of capital required by the banks to enable them withstand the risks such as credit, market and operational risks they are exposed to in order to absorb the potential loses and protect the bank's debtors. According to Dang (2011), the adequacy of capital is judged on the basis of capital adequacy ratio (CAR). Capital

adequacy ratio shows the internal strength of the bank to withstand losses during crisis. Capital adequacy ratio is directly proportional to the resilience of the bank to crisis situations. It has also a direct effect on the profitability of banks by determining its expansion to risky but profitable ventures or areas (Sangmi & Nazir, 2010).

Under the current Basel 2 requirements, which have been adopted in West African countries, there exist two kind of capital, which are counted in attaining the required capital adequacy rules. These include supplementary capital and core capital. Based on the traditional approaches to banking, positive characteristics of capital adequacy are needed because capital acts as the buffer against financial performance and losses. Moreover, due to their nature of limited liability, the tendency of commercial banks to engage in activities that have high risks tends to decrease based on the capital at risk compared to the banks' assets. Most importantly, it is worth noting that the performance of banks is incredibly affected by the reduced massive taking of risks (Caprio, Barth & Levine, 2001). According to Manole and Grigorian (2002), tightened minimum ratios for capital adequacy have also been allied to increased ability to generate revenue as well as aggressive behaviors associated with deposit taking that have a direct effect to the financial performance.

Loan Loss Provision

It is a percentage (%) that reflects accumulated provision expenses (minus write-offs) of current total loans. It is a rough indicator of the overall quality of the loan portfolio, and it represents the —loan loss reserve amounts maintained by a commercial bank to offset the default risk in its total outstanding loan portfolio.

Review of Previous Studies

Below are some details of earlier researchers which establish and revealed the under listed theories

S/n	Authors /Year	Country / Period	Title	Methodology	Variables	Findings	Recommendation
1	Li yuqi (2007)	United Kingdom (1999-2006)	Determinants of banks profitability and its implications on risk management practices in the United Kingdom.	Ex-post facto research	Liquidity risk, credit risk, capital, GDP growth rate, interest rate and inflation rate.	The six variables were combined into one overall composite index of bank's profitability. Return on Asset (ROA) was used as an indicator of bank's performance. It was found that liquidity and credit risk have negative impact on bank's profitability.	The study recommends that banks should manage risks involved during their operations to minimize potential risks and losses involved. It also recommends that banks should develop strategies to manage risks

							involved during their operations.
2	Harvey and Merksky (2008)	Nigeria (2004 – 2008)	The Role of Credit Ratings in Managing Credit Risk in Federal Treasury Activities	Descriptive statistics	Credit risk, profitability	They found out that credit risk management has a significant impact on profitability of Nigerian banks.	They recommended that credit risk management should be the priority of every banks.
3	Githinji (2010)	Kenya (2004-2008)	Credit Risk Management and Profitability of Commercial Banks in Kenya	Ex-post facto research design	Profits, amount of credit and the level of non-performing loans.	The results of the study showed that, there was no relationship between profits, amount of credit and the level of nonperforming loans. The results further revealed that there was no significance relationship between the banks profit and credit risk management proxy by level of Non-performing Loans and Advances/Total Assets.	He recommended that commercial banks that are keen on making high profits should concentrate on other factors other than focusing more on amount of credit and nonperforming loans.
4	Khouri (2011)	Gulf Cooperation Council (GCC) countries (1998-2008).	Risk Performance of the GCC Banking and the impact on bank's specific characteristics	Ex-post facto research design	Roa, Roe, Credit Risk, Liquidity Risk And Capital Risk	Using fixed effect regression analysis, results showed that credit risk, liquidity risk and capital risk are the major factors that affect bank performance when profitability is measured by return on assets while the only risk that affects profitability when measured by return on equity is liquidity risk.	It was recommended that banks that are keen on making high profits should concentrate on other factors other than bank's specific risk characteristics.
5	Boland (2012)	Costa-Rica (1998-2007)	Managing Risk on Global basis.	Ex-post facto research design	non-performing loans, return on assets (ROA),	The result of their study showed that performance improvements follow regulatory changes and that risk explains	He recommended that performance improvements should follow regulatory changes.

					capital adequacy ratio, net interest margin.	differences in banks and non-performing loans negatively affect efficiency and return on assets (ROA) while the capital adequacy ratio has a positive impact on the net interest margin.	
6	Boahene et al., (2012)	Ghana	The relationship between credit risk and profitability of Ghanaian banks.	Ex-post facto design	Return on Equity, a ratio of non-performing loans to total asset	They found empirically that there is an effect of credit risk management on profitability level of Ghanaian banks.	The study also suggests that higher capital requirement contributes positively to bank's profitability.
7	Kolapo, Ayeni, Oke, (2012)	Nigeria (2000-2010)	Effect of credit risk on the performance of commercial banks in Nigeria	Regression model analysis	Credit risk, return on asset.	Credit risk has a significant effect on Return on Asset,	Regulatory authority should pay more attention to banks' compliance to relevant provisions of the Bank and other Financial Institutions Act (1999) and prudential guidelines.
8	Kuan-Chung, Chung-Yu (2012)	Taiwan (2005-2008)	Credit risk and performance of commercial banks	Data envelopment analysis (DEA) approach	Credit risk cost, return on asset.	Credit risk allocative efficiency (CR-AE) and credit risk cost efficiency (CR-CE) are inefficient over our observational periods.	Banks should have different strategies of credit risk management to survive in this changing environment.
9	Ogilo (2012)	Kenya	A comparative study of Credit Risk Management on Financial Performance of Commercial Banks in Kenya.	A causal research design	Capital adequacy, asset quality, management efficiency and liquidity (CAMEL), ROE	The study found out that there was a strong impact between the CAMEL components on the financial performance of commercial banks. The study also established that (CAMEL) had weak relationship with financial performance (ROE) whereas earnings had a strong	The study concluded that CAMEL model can be used as a proxy for credit risk management.

10	Grace (2012)	Kenya (2007-2011)	Effect of credit risk management on the financial performance of commercial banks in Kenya	Ex-post facto design	Credit risk, loan performance and capital adequacy	relationship with financial performance. The study showed that there is a significant relationship between performance in terms of profitability and credit risk management in terms of loan performance and capital adequacy.	Kenyan banks should ensure transparency of banking activities and the risks inherent in those activities, including credit risk.
11	William (2012)	Kenya (2008-2012)	The influence of financial risk management on the financial performance of commercial banks in Kenya	Descriptive Survey design	Credit risk, Roa	The study found that most commercial banks had highly adopted financial risk management practices to manage financial and credit risk and as a result the financial risk management practices mentioned herein have a positive correlation to the financial performance of commercial banks of Kenya.	The study recommends that commercial banks should seek and obtain information consistently so as to permit them to detect potential problems at an early stage and identify trends not only for particular institutions, but also for the banking system as a whole, while also ensuring transparency of banking activities and the risks inherent in those activities, including credit risk.
12	Adeusi, Akeke, Adebisi and Oladunjoye (2013)	Nigeria (2009-2-13)	Risk management practices and bank financial performance	Correlation and Panel data estimation technique	Doubt loans and capital asset ratio	The result implied an inverse relationship between financial performance of banks and doubt loans, and capital asset ratio was found to be positive and significant.	There is need for banks to practice prudent risks management in order to protect the interests of investors.

METHODOLOGY

Research Design

This study adopted *Ex-Post Facto* research design in conducting the research. *Ex-Post Facto* seeks to find out the factors that are associated with certain occurrences, conditions, events or behavior by analyzing past events or already existing data for possible casual factors (Kothari & Garg 2014).

Area of Study:

The study covered all the selected listed banks in West Africa within the period of ten years from 2009 to 2018. The investigation period ends at December 2018 due to lack of data availability in 2019 as the most recent year during the time of this study. West African countries covered include Nigeria and Ghana. These two West African countries were selected because they have the largest and most active stock markets in West Africa. Deposit money banks were chosen because of their uniqueness in financial reporting disclosure requirements. The start of 2009 is chosen because this period is generally considered as the start of the financial crisis in which the first severe sub-prime losses were realized.

Population of Study

The population for this study consist of all the listed deposit money banks published in the Nigeria and Ghana stock Exchange (NSE) for the period of ten years ranging from 2009 to 31st December 2018. The population consist of all the 26 deposit money banks in Nigeria and Ghana rated as follows: Nigeria have 15 deposit money banks while Ghana has 11 deposit money banks.

3.4 Sample Size and Sampling Technique

Purposive sampling technique was employed to arrive at ten (10) banks each from the two countries and this was considered as sample size for this study. The ten deposit money banks each will be purposively selected based on the availability and completeness of data set for the studied period (2009-2018). Ten banks each from Nigeria and Ghana were chosen for easy comparison to give us a total of twenty banks for the two countries. Also, newly listed banks are excluded due to inadequate data. Based on consideration of sampling, the size of sample in this study is twenty (26) banks but there are 6 banks that do not have the completeness of the data and they were filtered as follows:

Sample Selection and Filtration	26 banks
Less: Bank-years with number of observations < 10/Newly listed banks	2
Less: Number of missing observations for variables in the models	3
Less: Banks that have been delisted	1
Final Sample Size	20

Therefore, only 20 banks are with sufficient information and were finally selected to be sample of this study. Note that 20 banks were selected based on complete availability of data. The sample selection covers only audited annual report of 20 banks for the year 2009 to 2018 which is considered as the current sample size for this study. Again, to enable us compare the countries specific results, we selected 10 banks each from the two West African Countries to arrive at a total sample of 20 banks for easy comparison.

Test of Hypotheses

The study investigated the relationship that exists between financial risk and performance of listed deposit money banks in two West African countries between 2009 and 2018. The study carried out some preliminary tests like descriptive statistics and correlations analysis. The descriptive statistics was used to analyse the data in order to ascertain the normality and nature of the data. Correlation analysis was used to ascertain the association between the variables and to test for the presence of multi-colinearity. To further check for the case of perfect correlation among variables, Variable inflation factor (VIF) was conducted. Finally, the study used panel regression analysis in

obtaining functional causal effect relationship between Credit Risk and management and Bank profitability.

H₀₁: Credit risk has no significant effect on performance of Deposit Money Banks of West African Countries.

The analysis result of the effect of risk management on performance of quoted deposit money Banks in West African countries showed a coefficient value of -0.05, t-value of -3.635 and a P-value of 0.0004 for credit risk variable. The coefficient value of -0.05 shows that credit risk is negatively related to return on asset of deposit money banks in West African countries. The result suggests that Non-Performing Loans (NPL) which measures the extent of credit default risk sustained by deposit money banks have a negative effect on ROA. The result in this study suggests the need for strong credit risk management to keep the level of NPL as low as possible which will enable to maintain the high profitability level of deposit money banks in West African countries. In order to decrease NPL, deposit money banks in West African countries should evaluate any potential risk may cause the borrower to default on its loan obligation. Therefore, based on t-statistics values of risk management and its coefficient, bank's credit risk (CRSK) appears to be statistically significant and negatively associated with the probability for banks to make huge profit in financial year. This indicates that an increase in the profitability level of banks leads to a decrease in their credit risk of selected banks to the tune of -0.05%. By implication, this means that an increase in the bank's nonperforming loans level (proxy for credit risk) will result to about 5% decrease in banks profitability. There is evidence that higher non-performing loans values are significantly associated with a slight decrease in profitability level of banks. The higher the credit risk of banks, the lower the return on assets of banks and this attract loss of potential investors to their banks. That is, it may not be the level of nonperforming loans that is significantly related to the level of return in asset; rather, it is the amount of provision made that is negatively associated with the profit. The t-value of -3.635 reveals that banks credit risk has a strong effect on return on assets of selected banks. The probability value of 0.000 reveals that the effect of credit risk on banks profitability in West African countries is statistically significant at 1% level of significance. The p-value result re-affirms the t-test statistics result. This finding is in line with the findings of prior studies such as Etale, Ayunku and Etale (2016), Athanasoglou, Brissimis and Delis (2005), Felix and Claudine (2008), Kagi (2011), Li yugi (2007), Alper and Anbar (2011) who documented negative and significant result between credit risk and firm performance but negates the findings of Harvey and Merkowsky (2008), Akong'a (2014) that found positive and significant results. Our finding also disagreed with findings of Kolapo, Ayeni and Okey (2012), Taiwo et al. (2017) and Githinji (2010) that found insignificant relationship between credit risk and performance of firms. This result therefore rejects our first null hypothesis (H₁), which states that credit risk has no significant effect on performance of deposit money banks in West African countries and therefore accept our alternate hypothesis and conclude that credit risk has significant effect on return on assets of banks which was statistical significant at 1% level of significance.

H₀₂: There is no significant effect between capital adequacy risk and performance of deposit money banks in West African countries.

It can be observed from the regression that capital adequacy risk has a positive coefficient value of 0.00018. This reveals a very weak but positive effect on performance of banks. there is a positive relationship between CARSK and ROA. The minimum CARSK requirement of deposit money banks in West African countries is 15% whereas our average CARSK was 52% which is higher

than the minimum requirement. That is to say that capital adequacy risk was found to be statistically insignificant and positively associated with the probability of banks. By implication, this means that a 1% increase in capital adequacy risk leads to a corresponding increase in return on assets of banks. This means that increases in the ratio of capital adequacy risk of West African banks increases the likelihood for them to make profit. The bank has a reserve beyond the necessary amount enough to handle unexpected risk. As banks with strong capital base has every tendency of making profit in the long run. It maintains stability and protection against depositors and confidence on the deposit money banks in West African countries. Thus banks with lower capital adequacy ratio have more incentive to decrease their profitability base as a result of such risk associated with it. The t-value of 0.27 reveals that banks capital adequacy risk has a strong effect on return on assets of selected banks but its effect is not statistically strong enough to drive its performance. The probability value of 0.780 reveals that the effect of capital adequacy risk on banks profitability in West African countries is statistically insignificant. This result is in agreement with the findings of Hosna and Manzura (2009), Grace (2012), Hosna et al. (2009), Khouri (2011), Boland (2012), Li yugi (2007) and Adeusi, Akeke, Adebisi and Oladunjoye (2013) that documented a positive and strong effect between capital adequacy risk and performance of banks while our finding is in disagreement with the findings of Ogilo (2012) and Khouri (2011) that recorded negative and weak effect. As a result of this insignificant result found, this study therefore accepts the fifth null Hypothesis (H_{05}), which states that capital adequacy risk has no significant effect on profitability of deposit money banks in West African countries. We therefore reject our alternate hypothesis and conclude that capital adequacy risk has no statistical significant effect on profitability of banks.

H₀₃: Loan loss provision has no significant effect on performance of deposit money banks in West African countries.

This implies that a 1% increase in the fraction of loan loss provision is associated with a percentage increase in the ratio of return on assets by a very minimal magnitude of 0.0001%. The management of deposit money banks in West African countries clearly recognised the risk arising from lending business and strengthens their credit risk management capability, in addition to allowing high loan loss provisions to loan and advances. The more provision banks keep aside against loan loss, the more their ability to manage their profit and performance base. The t-value of 0.536 reveals that banks loan loss provision has a very weak effect on return on assets of selected banks. The probability value of 0.592 reveals that the effect of loan loss provision on banks profitability in West Africa is statistically insignificant. Thus, banks have the tendency to increase or decrease loan loss provision or expected loan Loss for the purpose of performance measures. It was discovered that loan loss provision is used for capital management which led to higher profitability level. This result indicates that the tendency for banks to increase their capital/profit by increasing the amount of loan loss provision to boost the reported capital under CBN regulation. This study agreed with the study of Hosna and Manzura (2009), Olawale et al. (2013) and Chang et al. (2008) that studied the relationship between discretionary loan loss provisions (DLLP) and operating performance of banks listed in the Taiwan Stock Exchange. Based on the total number of 164 companies for 1999 – 2004, their findings showed positive relationships between DLLP and the earnings before loan loss provisions and between one year ahead earnings and non-performing loans. Eng and Nabar (2007) examined the behaviour of loan loss accounting disclosures and the association between the market valuation of the loan loss accounting disclosures and future bank

cash flows of banks in Hong Kong, Malaysia, and Singapore. Using data from 1993 to 2000, they also examined the impact of the financial crisis of July 1997 – 1999 on the behaviour and valuation of loan loss reserves. The findings of their study indicate a positive relationship between unexpected loan loss provisions and the banks stock returns and future cash flows. An examination on the impact of crisis reveals that during the crisis, the association between unexpected loan loss provisions and bank stock returns and future cash flows were less significant in comparison to other periods. Banks with high profit have the tendency to adjust loan loss provisions with an intention of managing earnings (Eng & Nabar; 2007). Therefore, it is expected that the higher the loan loss provision of the company, the higher the management profit. Our finding is in disagreement with the findings of Kargi (2011), Dietrich and Wanzenried (2011) who documented negative and significant effect between loan loss provision and banks performance and also negates the findings of Kolapo, Ayeni and Oke (2012) that recorded insignificant result. As a result of this insignificant result documented, this leads to the rejection of our last alternate hypothesis and conclude that loan loss provision has no significant effect on performance of deposit money banks in West African countries measured using return on assets.

CONCLUSION AND RECOMMENDATIONS

Based on a sample of 20 selected banks from Nigeria and Ghana Stock Exchange for ten fiscal years from 2009-2018 and using three independent variables (LRSK, OPRSK, IRSK,). The study found that:

1. Liquidity risk was found to have insignificant effect in both Ghana and Nigeria banks.
2. Operational risk was discovered to have positive and significant effect on performance of Banks in West Africa having recorded a positive coefficient values across Nigeria and Ghana banks.
3. It was discovered that interest rate risk has positive and significant effect in Ghana banks using ROA while a negative and significant effect was documented against Ghana banks using ROE which was statistically significant at 1% level of significance. In Nigeria banks, it was discovered that interest rate risk has insignificant effect.

To identify the effect of risk management on the performance of deposit money banks in West African countries, Descriptive statistics and panel data regression analysis were employed on data collected from the deposit money banks in West African countries over 10 years' period from 2009 to 2018. The ratio of non-performing loan which measures credit risk and loan loss provision ratio is sharply declining in recent years. This indicates that the risk management of deposit money banks in West African countries had been improving during the study period. The capital adequacy risk and operational risk ratio was also found to be a little bit higher than the regulatory requirement. Based on the descriptive analysis, the deposit money banks in West African countries have an adequate capital to withstand shocks resulting from credit and other operational risks. West African banks and regulatory authority should periodically review the operations of banks to ensure they comply with relevant provisions of the Bank and Other Financial Institutions Act (BOFIA, 1990) and prudential guidelines. Moreover, Nigeria and Ghana banks should enhance their capacity in risk management by devising effective and efficient process to identify measure, monitor and control risks. The study therefore recommended that credit reporting agencies and supervising authorities should be strengthened in order to reduce the high level of non-performing loans in the banking sector of Nigeria.

- I. The study recommended that banks should manage operational risks involved during their operations to minimize potential risks and losses involved.
- II. West African Banks and regulatory authority should pay more attention to banks' compliance to relevant provisions of the Bank and other Financial Institutions Act (1990) and prudential guidelines with respect to Interest rate risk and Loan administration.

Generally, Based upon results, banks should fully concentrate on the loan assessment procedure, polices and quality of loans and liquidity management. West African banking industry should inculcate a balance risk management culture to mitigate risks and shocks. There should be risk based strategy formulation and mature corporate governance framework. There should be proper implementation of Basel accord II and III. This study will contribute in literature and will be beneficial for academic, social and managerial deoprtment.

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