

The Impact of Risk Management on the Performance of Deposit Money Banks in Nigeria

Shodeinde Jide Bolaji

Distance Learning Institute, University of Lagos Email: jshodeinde@unilag.edu.ng, Tel: 08023358387, 08139318014

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ABSTRACT

This study investigates the impact of risk management on the performance of deposit money banks in Nigeria. Given the increasingly volatile economic environment, risk management has become a critical focus in the banking sector. Despite the pivotal role banks play in national development, they continue to face a wide range of financial risks. The study specifically aimed to examine the impact of credit risk on the performance of deposit money banks in Nigeria. An ex-post facto research design was employed, with five banks purposively selected for the period 2014–2023. The findings revealed that risk management measured by the loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio has a significant positive effect on return on assets in the selected banks. The study recommended that Nigerian banks need to strengthen their capabilities in liquidity and credit risk management, as well as loan administration, while regulators should focus more on ensuring banks comply with prudential guidelines.

Introduction

The banking sector is critical to the economic development of any nation, serving as the backbone for financial intermediation and economic growth. In Nigeria, deposit money banks (DMBs) play a significant role in mobilizing savings and allocating resources efficiently. Nigerian banks have continued to be crucial to the expansion and prosperity of the country's economy (Gabaraane, 2018). The effectiveness of a bank determines its ability to generate long-term profits (El Mehdi, 2018).

Performance is the ability to function effectively and profitably, to flourish and grow in response to environmental opportunities and risks. Return on Equity (ROE), Return on Assets (ROA), and Net Interest Margin (NIM) are also used to calculate financial efficiency. In addition to profitability, the banking industry also measures financial success using the following metrics: liquidity, loan disbursement, and consumer netting. Performance is defined as the capacity to carry out tasks effectively, profitably, survive, grow, and, respectively respond to environmental opportunities and dangers (Asiligwa & Rennox, 2017). A company's power, wealth, and supremacy in its industry can be shown by performance and through the skill they possess, organizations can gauge their performance. They must be able to execute their operations correctly and effectively if they are to meet their specific organizational defined objectives and benefit from them. Performance is also used to measure organization's financial health and demonstrates how well its management performs. The greater the company's performance, the more effectively and efficiently it uses its resources and the more it contributes to the economy of a nation as a whole (Wanjohi, Wanjohi & Ndambiri, 2017)

Financial performance and risk management has been the subject of unprecedented quantities of empirical research in recent years. A great deal of research has supported the crucial importance of a country's financial system as the cornerstone of a strong and efficient economic system. A strong banking sector is crucial for an economy's financial system since it serves as the primary participant in the financial intermediation role in emerging countries (Hawkins & Mihaljek, 2017).

The main responsibility of a bank is to collect deposits from people who have extra cash and to lend that cash at interest to people who urgently need it. The inherent dangers of the banks' performing these intermediary functions are present. The

risks taken by the banks could result in unanticipated losses or a happy outcome in the form of more income (Qudat & Alli, 2021).

Financial performance indicates how successfully a corporation may use resources from its main line of business to generate revenue. It generally relates to how successfully financial objectives have been attained (Vij & Bedi, 2016). For bank directors and management, to understanding the factors that affect an organization's performance is essential because financial performance is one of the administrative important competencies aimed at satisfying the interests of investors and other partners. Getting a bank to achieve its business goals involves several risks that could endanger its performance or perhaps survival (Muhammad & Khan, 2018).

Banks' performance is affected by macroeconomic fluctuations in economic growth rate, inflation rate, interest rate, and increases in money supply (Abdrahamane, Alpha, & Kargbo, 2017). The exchange rate also plays a crucial role in the financial performance of organizations. It directly impacts the general price level, resource allocation, and decisions to invest in companies and the profitability of organizations (Ehimare, 2011; Okika, Francis & Greg, 2018; Moyo & Tursoy, 2020).

The financial performance of banks is linked with risk and performance parameters (Abubakar, Sulaiman, Abdulwahab, Bello & Mohammed, 2019; Afolabi, Tomola, & Egbetunde, 2020; Cheng, Takyi, Charles, & Abraham, 2020). DMBs are in business to make a profit and maximize their shareholders' wealth. Nevertheless, there are various measures to capture the financial performance such as: Gross profit margin, Net profit margin, return on equity (ROE), return on assets (ROA), and Equity Multiplier.

The Nigerian banking sector is pivotal to the country's economic development, facilitating financial intermediation and supporting economic activities. However, deposit money banks (DMBs) in Nigeria face numerous risks that can adversely affect their performance, stability, and growth. Despite regulatory efforts to strengthen the banking system, many banks continue to grapple with challenges arising from poor risk management practices as a result of high incidence of non-performing loans (NPLs), Market volatility and economic instability, operational risks and inefficiencies, liquidity management challenges, regulatory and compliance Risks. (El Mehdi, 2018)

Most existing studies focus broadly on the financial performance of banks without a detailed examination of the specific risk factors and management strategies that influence their outcomes. This research aims to investigate the impact of credit risk (using loan-to-deposit ratio – LDR), and liquidity risk (using liquidity coverage ratio - LCR and liquidity ratio – LR) in enhancing the stability, and profitability (using return on asset – ROA and return on equity – ROE) of Nigerian banks.

Objective of the study

The specific objectives of the study are to examine the;

- i. impact of loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio on the return on assets of deposit money banks in Nigeria.
- ii. impact of loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio on the return on equity of deposit money banks in Nigeria.
- iii. impact of loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio on the net interest margin of deposit money banks in Nigeria.

Research Questions

- i. What is the impact of loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio on the return on assets of deposit money banks in Nigeria.?
- ii. What is the impact of loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio on the return on equity of deposit money banks in Nigeria.?
- iii. What is the impact of loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio on the net interest margin of deposit money banks in Nigeria.?

Research Hypotheses

H₀₁: There is no significant impact of loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio on the return on assets of deposit money banks in Nigeria.

H₀₂: There is no significant impact of loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio on the return on equity of deposit money banks in Nigeria.

H₀₃: There is no significant impact of loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio on the net interest margin of deposit money banks in Nigeria.

Literature Review

Risk management refers to the method used to describe, evaluate, and prioritize risks to minimize or mitigate the risk of financial incidents that occurred or affected the company. (Zidafamor, 2016). Risk management is a mechanism carried out by an organization's board of directors, management, and other staff. It is implemented throughout the company. It is also intended to recognize possible incidents that may affect the organization negatively and manage risk to be within its risk capacity, to provide fair certainty regarding the achievement of entity objectives (Bromiley, McShane, Nair, & Rustambekov, 2015; Olabisi-Ayodele, & Salawu, 2021; Harb, El Khoury, Mansour, & Daou, (2022). Since business risks are inevitable in the operations of deposit money banks, then management of the risks will affect the sustainability and performance of the banks (Akande & Salawu, 2019; Ekinici & Poyraz, 2019).

Risk management is vital in determining the total profitability of banks, according to researchers (Oluwafemi, Israel & Simeon 2018; Kambi & Ali 2016; Res, Sa, & Gemechu, 2016). Risk Management is a set of coordinated actions that are intended to reduce the negative effects of uncertainty surrounding potential losses (Philip & Abisola, 2019). According to Ndubuisi and Amedu (2018), risk management is an organized method for identifying and evaluating the pure loss exposure that a business has as well as choosing the best strategy to address such exposure.

Financial risk management may be described as a systematic technique for analyzing, evaluating, and addressing financial risks. This increases the possibility that goals will be achieved and ensures that businesses, people, and communities remain sustainable. It also assists the company in keeping track of new customers. A full comprehension of the relevant dangers, an assessment of their relative importance, and a methodical monitoring and control strategy are necessary for risk management to be successful. To lessen or totally prevent the possible loss, it is vital to recognize potential risks, assess and analyze them, and take precautionary action. The objective of financial risk management is to lower risk.

According to the Basel Committee on Banking Supervision (2001), credit risk is "the risk of loss arising from default by a creditor or counterparty". In simple terms, credit risk is the loss a lender may experience arising from the failure of a borrower to pay scheduled interest or principal (where a loan has bullet-repayment terms, interests are paid periodically, while the principal amount is paid once at the end of the loan tenure) or failure to pay a combination of both interest and principal in defiance to the terms of the loan covenant.

Liquidity Risk

Liquidity risk is the possibility that a bank won't have enough cash on hand to cover operational costs and satisfy consumer credit requests. Lack of timely access to funds may result in revenue reduction and client loss. If the cash flow problem continues, the business can eventually fail (Okolie, Agorchukwu & Ezeamama, 2023). A bank's ability to make timely payments on its debts or invest in asset expansion when it is necessary is subject to liquidity risk (Yusuf, 2019). Therefore, both a scarcity of resources and a surplus of underused ones pose a liquidity risk. For gap analysis and management in banks to be effective, a "reasonable fit between the average maturities of the sources and uses of funds" must be kept (Christopher, 2019).

Return on Assets

Return on Asset (ROA) is a ratio to measure the level of profit or the company's ability to earn profits with a number of assets owned by the issuer. Return on assets (ROA) measures a company's profitability in relation to its total assets. ROA can be used by corporate management, analysts, and investors to assess how effectively a company uses its resources to make a profit. The metric is frequently represented as a percentage using the average assets and net income of a corporation. A company's ability to manage its balance sheet to produce profits is more effective and efficient when its ROA is higher; on the other hand, a lower ROA suggests there is potential for improvement. (Yusuf, 2019).

Return on Equity

Return on Equity (ROE) is one of the profitability ratios that can be used to measure the amount of net income for the current year compared to Total Equity (Ceria, Yusuf, Rasinta & Enda N.2021). Fahmi, (2015) claims that the term "return on equity" also refers to the ratio of return on equity. This ratio looks at how effectively a business utilizes its assets to generate a return on equity. The return on equity ratio can be used to assess how well management is using the company's capital to generate returns for shareholders; the higher this ratio, the better because it offers owners a higher rate of return

Theoretical review

This paper is hinged on the Credit Risk Theory. The Merton (1977) default model introduced credit risk theory, which relates a firm's credit risk to its capital structure in terms of its equity and debt obligation. There is no doubt that the failure of borrowers to meet their obligations to their banks will affect the capital structure of the banks. Central banks are also faced with the challenge of ensuring that banks have adequate processes and procedures to safeguard them against delinquent loans through the periodic issuance of guidelines to banks and imposition and implementation of sanctions when the guidelines are breached. These actions by central banks are all geared to avoid chaos in the financial system and for terms and conditions of financial covenants to be mutually respected between banks and their customers. The financial performance of banks must be balanced with how well their credit risk exposures are managed. Moreover, it is expected that banks' management teams will seek and deploy appropriate methodologies to manage their credit risk exposures, albeit within the boundaries of their respective central banks' prudential guidelines and code of corporate governance (Almustafa, Quan, Jia, & Van,2023).

Commercial loan theory, also known as the real bills doctrine, was propounded in the early 19th century by Adam Smith and other classical economists, but it became more formally recognized through the writings and policies of central banks in the 1800s, particularly during the 1820s and 1830s. This theory's main argument is that banks should only make short-term, self-liquidating loans. Because Nigerian bankers believe that bank deposits should be used in short-term loans because they are repayable quickly, the theory is well-liked among commercial banks in that country. There are various issues with the hypothesis. The main flaw is its requirement that all loans be paid off in the regular course of business; this shows a lack of understanding of the relative stability of bank deposits. Because bank deposits are stable, even though demand deposits are always in demand, only a small percentage of depositors frequently request payment at a given time, unless there are signs that the bank is in danger. Due to the stability of deposits, there is no risk of illiquidity when a bank lends a portion of the deposits for a respectably long time. Despite its flaws, the commercial loans theory persisted over time in banking, and it is still relevant in the minds of many banking industry stakeholders (Okolie et al., 2023). The theory is pertinent to the variables employed in this study, including the liquidity ratio and the loan-to-deposit ratio.

Empirical Review

Bhatt, Naveed, Muhammad & Mehfooz, (2023) examined the determinants of credit risk management and their relationship with the performance of commercial banks in Nepal. Their findings are multifaceted, with partial-least squares structural equation modeling (PLS-SEM) to analyze data collated from a self-administered questionnaire. They found that, firstly, there is a positive relationship between environmental risk and credit risk; secondly, credit appraisal measurements have a significant effect on credit risk; thirdly, market risk analysis has a significant effect on credit risk management; and lastly, credit risk management intermediates the relationship between environmental risk, credit appraisal measurements, market risk analysis, and the performance of commercial banks in Nepal.

Mudanya, Kadima, & Miroga. (2022) investigated credit risk management practices and financial performance of commercial banks in Kenya, a case of banks in Vihiga County. Secondary data from the banks' financial statements from 2016 to 2021 and data from the self-administered questionnaire were collated and analyzed. Their regression analysis showed that credit risk management practices represented by loan default monitoring, credit scoring, and credit policies and procedures significantly affect the financial performance represented by the return on asset (ROA) of commercial banks in Kenya. Majani (2022) examined the relationship between credit risk management and the financial performance of commercial banks listed at the Nairobi securities exchange, Kenya, from 2016 to 2019. From the application of trend analysis, correlation analysis, and regression analysis to analyze collated data, the findings from the study revealed that nonperforming loans ratio (NPLR) and loan loss provisions ratios (LLPRs) had no statistically significant relationship with ROE. However, capital adequacy ratio (CAR) had a statistically significant negative effect on ROE, while there was a statistically significant positive relationship between loan to assets ratio (LAR) and ROE.

Kwashie, Baidoo, & Ayesu (2022) explored the impact of credit risk on the financial performance of commercial banks in Ghana from 2013 to 2018. They used two measures of financial performance of return on assets (ROA) and economic value added (EVA). Their measures for risk are non-performing loans (NPL), loans and advances ratio (LAR), capital adequacy ratio (CAR), size and age of the banks, inflation, gross domestic product (GDP), inflation (INF), and monetary policy rate (MPR). The results from the analysis of their regression models showed that NPL had a negative impact on both ROA and EVA but was only statistically significant on EVA. LAR had an insignificant positive influence on ROA and EVA. CAR also had an insignificant positive effect on ROA but a statistically significant negative effect on LAR. Size had a positive effect on both ROA and EVA but was statistically significant on EVA. Age, GDP, and INF had a positive statistically significant impact on ROE but an insignificant positive impact on EVA. MPR had a negative effect on ROA and EVA but was only statistically significant on ROA.

Haile and Joshi (2022) studied the effect of credit risk management on the financial performance of commercial banks in Ethiopia for the period 2008 to 2018, using return on asset (ROA) as the measure of profitability, and they found, from their regression analysis, that the capital adequacy ratio, the loan-to-deposit ratio, and the provision for loan loss to total loan ratio had a positive and statistically significant effect on profitability. Meanwhile, non-performing loans, loan-to-total asset ratio, and cost-per-loan ratio (total operating cost/total amount of loans) had negative and statistically significant effect on the profitability of Ethiopian banks.

Method

To achieve the objective of this study, this study adopted the ex-post facto because the data required for the research already exists. Ex post facto design is a quasi-experimental study that looks at how a pre-existing independent variable impacts a dependent variable. The selection of ex post facto research design in this study is informed by the purpose of the study, which is to investigate the relationship between variables and to establish the impact of one variable (independent variable) on another (dependent variable), so as to establish a causal relationship or otherwise among the variables

Model Specification

The result of the panel data regression analysis represents an equation that exclusively best forecast a specific dependent variable from a group of independent variables. This approach is considered in situation where the independent variables were found to be associated with each other as well as the dependent variable. The model used return on asset (ROA), return on equity (ROE) and net interest margin (NIM) as dependent variables, three (3) independent variables, which include: loan to deposit ratio (LDR), liquidity ratio (LR) and non-performing loan ratio (NPL). The model below is used to critically assess the impact of risk management on the performance of Deposit Money Banks in Nigeria.

$$Y = a + \beta X$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon_{it}$$

$$FP = f(LR, CR)$$

Specifying in econometric format;

$$ROA = \beta_0 + \beta_1 LDR + \beta_2 LCR + \beta_3 LR + \mu$$

$$ROE = \beta_0 + \beta_1 LDR + \beta_2 LCR + \beta_3 LR + \mu$$

$$NIM = \beta_0 + \beta_1 LDR + \beta_2 LCR + \beta_3 LR + \mu$$

Where: ROA = Return on Asset

ROE = Return on Equity

NIM = Net Interest Margin

LDR = Loan to deposit ratio

LCR = Liquidity Coverage ratio

LR = Liquidity ratio

μ = random error term which takes care of the effects of other factors which are not fixed in the model, on dependent variable.

β_0 = Regression Constant

$\beta_1, \beta_2, \beta_3$ are the regression coefficient associated with independent variables.

Regression Analysis for Test of Hypothesis One (H_{01})

Research Objective One: Determine the impact of loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio on the return on assets of deposit money banks in Nigeria.

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.118086	0.371680	0.317708	0.7515
LDR	0.380435	0.283868	1.340183	0.0027
LCR	0.002075	0.001664	1.246866	0.0382
LR	0.038549	0.036555	1.054531	0.0046
R-squared	0.759250	Mean dependent var		0.466100
Adjusted R-squared	0.713284	S.D. dependent var		0.629563
S.E. of regression	0.615787	Sum squared resid		32.98985
F-statistic	1.373249	Durbin-Watson stat		1.878317
Prob(F-statistic)	0.015740			

Source: Eviews10 Output

The model one summary shows that the adjusted coefficient of determination (Adjusted R^2) is 0.71. This indicate that 71% of variation in performance is attributable to risk management measured by loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio while the remaining 29% variation can be attributed to the variable not covered in this model.

Loan-to-deposit ratio ($\beta=0.380$, $t=1.340$, $p=0.002$), liquidity coverage ratio ($\beta=0.002$, $t=1.246$, $p=0.038$), liquidity ratio ($\beta=0.038$, $t=1.054$, $p=0.004$) all had a positive and significant effect on return on asset. The findings from the study revealed that loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio has significant impact on the return on assets of deposit money banks in Nigeria.

Regression Analysis for Test of Hypothesis Two (H₀₂)

Research Objective Two: Determine the impact of loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio on the return on equity of deposit money banks in Nigeria.

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.189510	0.249225	0.760396	0.4509
LDR	0.082588	0.028875	2.860172	0.0063
LCR	0.001990	0.003664	0.543202	0.0396
LR	0.155049	0.046673	3.322041	0.0018
R-squared	0.873154	Mean dependent var		0.323699
Adjusted R-squared	0.817329	S.D. dependent var		0.345746
S.E. of regression	0.480010	Akaike info criterion		0.430099
Sum squared resid	3.835289	Schwarz criterion		0.583061
Log likelihood	-6.752473	Hannan-Quinn criter.		0.488348
F-statistic	4.153980	Durbin-Watson stat		1.183533
Prob(F-statistic)	0.026988			

Source: Eviews10 Output

Discussion of Findings

The model two summary shows that the adjusted coefficient of determination (Adjusted R²) is 0.81. This indicate that 81% of variation in performance is attributable to risk management measured by loan-to-deposit ratio, liquidity coverage ratio, and current ratio while the remaining 19% variation can be attributed to the variable not covered in this model.

Loan-to-deposit ratio ($\beta=0.082$, $t=2.860$, $p=0.006$), liquidity coverage ratio ($\beta=0.001$, $t=0.003$, $p=0.039$), liquidity ratio ($\beta=0.155$, $t=3.322$, $p=0.001$) all had a positive and significant effect on return on equity. The empirical result also shows that loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio has significant impact on the return on equity of deposit money banks in Nigeria.

Regression Analysis for Test of Hypothesis Three (H₀₃)

Research Objective Three: Determine the impact of loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio on the net interest margin of deposit money banks in Nigeria.

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.384293	2.119593	1.124883	0.2670
LDR	-1.134707	0.363178	-3.124384	0.0032
LCR	0.703935	0.287082	2.452035	0.0184
LR	4.169698	2.743019	1.520113	0.0136
R-squared	0.601319	Mean dependent var		0.542242
Adjusted R-squared	0.534873	S.D. dependent var		0.431808
S.E. of regression	0.294494	Akaike info criterion		0.538533
Sum squared resid	3.642532	Schwarz criterion		0.844457
Log likelihood	-5.463325	Hannan-Quinn criter.		0.655030
F-statistic	9.049638	Durbin-Watson stat		2.422026
Prob(F-statistic)	0.046421			

Source: Eviews10 Output

The model three summary shows that the adjusted coefficient of determination (Adjusted R²) is 0.53. This indicates that 53% of variation in performance is attributable to risk management measured by loan-to-deposit ratio, liquidity coverage ratio, and current ratio while the remaining 47% variation can be attributed to the variable not covered in this model.

Loan-to-deposit ratio ($\beta = -1.134$, $t = -3.124$, $p = 0.003$) had a negative and significant effect on net interest margin, liquidity coverage ratio ($\beta = 0.703$, $t = 2.452$, $p = 0.018$), had a positive and significant effect on net interest margin, while liquidity ratio ($\beta = 4.169$, $t = 1.520$, $p = 0.0136$) had positive and insignificant impact on net interest margin. The empirical result also shows that loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio has significant impact on net interest margin of deposit money banks in Nigeria.

Conclusion and Recommendation

Given the findings from the data analyzed, the study concluded that; Risk management proxied by loan-to-deposit ratio, liquidity coverage ratio and liquidity ratio were identified as having a positive significant effect on return on asset in selected deposit money banks in Nigeria. Risk management proxied by loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio were identified as having a significant effect on return on equity in selected deposit money banks in Nigeria, Risk management proxied by loan-to-deposit ratio, liquidity coverage ratio, and liquidity ratio were identified as having a significant effect on net interest margin in selected deposit money banks in Nigeria. The study therefore, recommended that Nigerian banks need to strengthen their capabilities in liquidity and credit risk management, as well as loan administration, while regulators should focus more on ensuring that banks comply with prudential guidelines.

References

- Abubakar, Ahmadu, Sulaiman A. Abdulwahab Sulaiman, Bello Usman, and Mohammed Umar Mijinyawa. 2019. Credit risk management and financial performance of quoted deposit money banks in Nigeria. *University of Port Harcourt Journal of Management* 1:178–92.
- Akande, F. I., & Salawu, R. O. (2019). Risk management and financial performance of listed deposit money banks in Nigeria. *The International Journal of Business & Management*, 7(11), 151- 161. <https://doi.org/10.24940/theijbm/2019/v7/i11/BM1910-016>

- Almustafa, H, Q, Khai N., Jia L, and Van C. D. (2023). The impact of COVID-19 on firm risk and performance in MENA countries: Does national governance quality matter? *PLoS ONE* 18: e0281148. [CrossRef]
- Asiligwa, M., & Rennox, G. (2017). The effect of internal controls on the financial performance of commercial banks in Kenya. *Journal of Economics and Finance*, 8(3), 92–105.
- Basel Committee on Banking Supervision. 2001. *The New Basel Capital Accord: An Explanatory Note*. Basel: Bank for International Settlements.
- Bhatt, T. K, Naveed A, Muhammad, B. I, and Mehfooz U. (2023). Examining the determinants of credit risk management and their relationship with the performance of commercial banks in Nepal. *Journal of Risk and Financial Management* 16: 1–23.
- Bromiley, P., McShane, M., Nair, A., and Rustambekov, E. (2015) Enterprise Risk Management: Review, Critique, and Research Directions. *Long Range Planning*, 48(4), 225-276. <https://doi.org/10.1016/j.lrp.2014.07.005>
- Ceria D. S, Yusuf R.E, Rasinta R. G, and Enda N. (2021), The Effect of Return on Assets (ROA) And Return on Equity (ROE) On Company Value with Capital Structure As Moderating Variables In Banking Companies Listed On The Indonesia Stock Exchange. *International Journal of Business, Economics and Law*, Vol. 24, Issue 6 (August) ISSN 2289-1552
- Christopher U (2019). Loan Administration, Calabar: University of Calabar Printing Press.
- Ehimare, A.O. (2011). The Effect of Exchange Rate and inflation on foreign direct investments and its relationship with economic growth in Nigeria. *Annals of Dunarea de Jos University of Galati Fascicle, Economics and Applied Informatics*, 42(1), 5-16
- El Mehdi, F. (2018) Determinants of Banks' Profitability and Performance: *An Overview*. *Munich Personal RePEc Archive, Munich*.
- Ekinci, R., and Poyraz, G. (2019). The Effect of Credit Risk on Financial Performance of Deposit Banks in Turkey. *Procedia Computer Science*, 158, 979- 987. <https://doi.org/10.1016/j.procs.2019.09.139>
- Fahmi, I. (2015). Pengantar Manajemen Keuangan. Bandung: Alfabeta
- Gabaraane, L. (2018) Role of Banks in Developing Economies and Opportunities Provided by Banks. Stanbic Bank Botswana, Gaborone.
- Haile, D M, and Dvinyang J. (2022). The effect of credit risk management on financial performance of commercial banks in Ethiopia. *International Journal of Creative Research Thoughts* 10: 301–13.
- Harb, E., El Khoury, R., Mansour, N., and Daou, R. (2022). Risk management and bank performance: evidence from the MENA region. *Journal of Financial Reporting and Accounting*. <https://doi.org/10.1108/JFRA-07-2021-0189>
- Hawkins, J., and Mihaljek, D (2017). The banking industry in the emerging market economies: competition, consolidation and systemic stability - an overview. *BIS Papers* No. 4, 1- 44.
- Kambi R. S, Ali AI (2016). Effect of Financial Risk Management Practices on Financial Performance of Listed Banks at the Nairobi Securities Exchange in Kenya. *The International Journal of Business and Management* 4(4):19-36.
- Kasmir (2015). Analisis Laporan Keuangan, cetakan ke-7. Jakarta: PT Raja Grafindo Persada.
- Kwashie, A. A, Baidoo, S. T. and Ayesu E. K. (2022). Investigating the impact of credit risk on financial performance of commercial banks in Ghana. *Cogent Economics & Finance* 10: 1–15.
- Majani, S. I. (2022). The relationship between credit risk management and financial performance of commercial banks listed at the Nairobi Securities Exchange, Kenya. *International Journal of Managerial Studies and Research* 10: 88–126. [CrossRef]
- Merton, C. (1977). An analytic derivation of the cost of deposit insurance and loan
- Moyo, D., & Tursoy, T. (2020). Impact of Inflation and exchange rate on the financial performance of commercial banks in South Africa. *Journal of Applied Economic Sciences*, 3(69), 626-638.
- Mudanya, E, Kadima J. M., and Miroga J.. (2022). Credit risk management practices and financial performance of commercial banks in Kenya: A case of banks in Vihiga County. *The Strategic Journal of Business & Change Management* 9: 305–16.

- Ndubuisi C. J., and Amedu, J. M. (2018). An analysis of the relationship between credit risk management and bank performance in Nigeria: A case study of Fidelity Bank Nigeria PLC. *International Journal of Research and Review*, 5(2), 58-69.
- Oduro, R., Aseidu, M. A., & Gadzo, S. G. (2019). Impact of credit risk on corporate financial performance. *Journal of Economics and International Finance*, 11(1), 1-14.
- Okika, C. E. M., Francis, N. P., & Greg, O. D. (2018). Effect of Exchange Rate Fluctuation on Firm Profitability: Evidence from Selected Quoted Conglomerates in Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 8(12), 1073-1090.
- Okolie, P. I. P., Agorchukwu, M. U., and Ezeamama, M. C. (2023). Effect of Risk Management on the Financial Performance of Money Deposit Banks in Nigeria. *Annals of Management Studies*, 10(1), 1-10. DOI: <https://doi.org/10.5281/zenodo.7683218>
- Olabisi-Ayodele, Y., & Salawu, M. K. (2021). Risk management and performance of Nigerian deposit money banks. *Accounting and Taxation Review*, 5(1), 30-44. Retrieved from <https://www.atreview.org/home/abstract.php?id=140&aTitle=Risk%20Management%20and%20Performnce%20of%20Nigerian%20Deposit%20Money%20Banks>
- Oluwafemi S, Israel N, and Simeon O. S. (2018). Risk Management and Financial Performance of Banks In. *IOSR. Journal of Business and Management* 14(6):52-56.
- Philip, A. O. and Abisola, A. T. (2019). Impact of credit risk management on profitability of selected deposit money banks in Nigeria. *International Journal of Economics, Commerce and Management, United Kingdom*, 7(9), 254-268.
- Res II, Sa K, Gemechu D. R. (2016). Risk management techniques and financial performance of insurance companies. *International Journal of Accounting Research* 4(1):1-5.
- Vij S, Bedi HS (2016). Are subjective business performance measures justified? *International Journal of Productivity and Performance Management* 65(5):603-621.
- Wanjohi, S. M., Wanjohi, J. G., & Ndambiri, J. M. (2017). The effect of financial risk management on the financial performance of commercial banks in Kenya. *International Journal of Finance and Banking Research*, 3(5), 70-81.
- Yusuf IS (2019). Risk Management Practices and Financial Performance in Jordan: Empirical Evidence from Islamic Banks. *International Shari'ah Research Academy for Islamic Finance* 6(5):1-24.
- Zidafamor, E. (2016). Risk management in Nigerian financial institutions - A literature review. Retrieved from <https://www.researchgate.net/publication/301891410>