EFFECT OF FINANCIAL RISKS ON THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

BY

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DECLARATION

I do hereby declare that this is my original work and has not been presented to any institution of higher learning for examination.

Signed …… Date …16/11/2022……

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D63/39155/2021

This research project has been submitted with my approval as the university supervisor.

Signed …….. Date 16TH NOVEMBER 2022**……**

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DEDICATION

I commit and inscribe this successful study to my parents Mr. and Mrs. Lang'at for that pivotal role that fueled this process. Their support and prayers were pivotal in enhancing this study. The success of this undertaking is true explanation of rising against predicaments and sailing victoriously. Despite immense commitments and longer work-hours, numerous people cared and lifted me up.

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May God Bless and Reward You Abundantly

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AFS	Audited Financial Statement
ANOVA	Analysis of Variance
CBK	Central Bank of Kenya
CG	Corporate Governance
CMA	Capital Markets Authority
FP	Financial Performance
GDP	Gross Domestic Product
NGO	Non-Governmental Organization
NIM	Net Interest Margin
NPL	Non-Performing Loans
NPV	Net Present Value
NSE	Nairobi Securities Exchange
OLS	Ordinary Least Square
PAFS	Published and Audited Financial Statement
ROA	Return on Asset
ROE	Return on Equity
ROI	Return on Investment
VIF	Variance Inflation Factor

ABSTRACT

Commercial banks are indispensable in economic stability of a country. The commercial banks thrive but with great financial risks that are resolved through sound financial management. It drives the business towards holistic growth. Though the financial risk exposes the commercial banks to great predicaments, it exposes firms to opportunities that generate higher return. Therefore, the objective was to examine the effect of financial risk on the financial performance of commercial banks in Kenya. The predictor variables were; credit risk, operating risk, liquidity risk as well as the interest rate risk. The study optimized descriptive was a master plan aiding explanation of cause and effect correlation. This research considered the 38 commercial banks listed by CBK as at 31st December, 2021 for period 2017-2021. Moreover, the data was generated from secondary means. This means the information was generated from published and audited financial reports. The assessment utilized SPSS to analyze and to generate multiple linear regression. In addition, the study used descriptive statistics to elaborate the findings. The outcome postulated standard of 0.0275270 for the financial performance. The standard deviation was for risk linked to credit, operational, liquidity, and interest rate were 2.5124016, 0.2626974, 0.2208429, and 0.1607076 respectively hence explaining the variability. The findings of diagnostic computation under multicollinearity accentuated that the four predictor variables in the assessment study did not have association among themselves. The Durbin Watson value recorded from mathematical quantification was 1.504 posting the normal range. Additionally, the output on normality test was also good for the study. The correlation computation portrays the connection among various variables. Credit, liquidity and interest rate risks posted positive correlation towards the financial performance while operating risk posted a negative correlation. Further, R of 0.694 and R-Square of 0.482 illustrated that regressor accounted for 48.2% variation on the financial performance. The other factors not cited in this assessment amounted to 51.8%. Moreover, analysis on confidence level was done. The F-Statistic resulted in 2.997 with the significance level of 0.000. The threshold stipulated a figure below 0.005 for the statistic to stand the test. The findings of $P=0.000<0.05$. Simply means, when all factors are held constant, the financial performance is positive 0.022 hence defining business was still generating returns. Furthermore, an addition of one unit of credit risk causes positive increment in the financial performance by 2.2%. Nonetheless, an increase in single unit of operating risk translates to decrement in the financial performance by 4.6% if other variables remain unchanged. Further, the advancement of single unit of liquidity risk changes the financial performance by positive value of 0.6% whenever other influencers are held constant. Finally, a unitary advancement of interest rate risk causes positive adjustment in the financial performance by 5.2% only whenever other enablers are stagnated to remain unchanged. The study concluded by advocating for more assessment on effect of digital-risk on the financial performance.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The firms are epicenter of transformation and realization of chief objectives. The financial performance of a commercial bank is critical in its capability and ability to trigger economic prosperity (GDP). The financial risk exposes the business to greater challenges. Additionally, the fast-paced dynamic business environment with highly unpredictable changes has subjected firms to financial risks. Olamide, Uwalomwa and Ranti (2015) concluded that financial risk has supreme role in the profitability of the firms. The sole objective of each firm is to minimize the financial risk thereby enhancing their financial performance which further translates to maximization of shareholders wealth. Mohamed (2020) connected the financial risks with sudden changes in the market, economy or the regulations. The financial turmoil is therefore critical in decision making as well as in the financial performance.

The theories anchoring the study is; financial intermediation theory. The supportive theories are; liquidity preference theory and agency theory. Financial intermediation theory by Gurley and Shaw (1960) coins the importance of banks in the economy. Liquidity preference theory stipulated via Keynes (1936) illustrates the importance of money in speculating investment, precautionary activities and transactional means. Agency (Jensen & Meckling, 1976) poises the separation of ownership verse governance to increase independence, holistic decision making and elimination of conflict of interest. The three theories address the financial risk and performance of firms.

The dynamic changes globally have exposed business to numerous risks. Moreover, the challenges have been the bottleneck for the business development and subjected management to strategic planning in China (Elliot and Yan, 2013). Therefore, it has challenged the firms to develop new way to fuel the economic growth and expand the sector. The commercial banks in Kenya have reduced from 43 in 2018 to 38 in 2021 due to mergers and acquisition and collapse of some banks (Mohamed, 2020). Commercial banks participate in a critical decree in economic stability of a county. Therefore, the financial risks are solved through sound financial management to push the form towards holistic growth. McKinney (2015) demonstrated that the effective management mitigates the business against risk and promoted the governance in USA. Alshatti (2015) opined that financial risk management is cardinal for minimizing the exposure.

1.1.1 Financial Risk

The financial risk results from financial turmoil in the firm (Gathiga, 2016). The financial risk is catastrophic to the business growth. The failure of an entity to meet obligated demands as they mature exposes them to financial risk. Moreover, the high cost of operation may drive the business to risk. Juma (2018) opined that firms' deficiency leads to risk and unstable financial markets. Chen, Shen, Kao and Yeh (2018) related the financial risks to inflows and outflow challenges that cause deficits and inability to meet the operational expenditure. The severe financial risk can drive the business towards financial distress.

The risky businesses have exhibited high profits. Despite the riskiness of the business, management strives to succeed through effective methods that enhance performance. Runo (2013) indicate that though firms may not have control over risk, they have to

undertake intensive and comprehensive risk control and mitigation to reduce exposure. Financial risks post a challenge to firms to work more and increase their productivity. The risky businesses call for adequate strategies in order for the firms to remain afloat.

The preceding researchers have measured the financial risk using different methods. The main determinants used are credit, liquidity, exchange rate risks, interest and the operating risk (Eckles, Hoyt & Miller, 2014). The prevailing study factors in the liquidity, credit, interest in addition to operating risks. Liquidity risk is posted by the incapability of firm to meet short terms obligations, credit risk expound on the likelihood of debtor default. Interest rate risk is the likelihood of getting losses resulting from the drastic changes in the interest rate. Njiru (2021) demonstrates the financial risk exposures that demand for holistic perspective. This study operationalizes the financial risk using credit risk, operating risk, liquidity risk and interest risk.

1.1.2 Financial Performance

The general determination of business capability is well coined on its decree to enhance resources. The financial performance has received numerous attentions from several scholars. Whereas, the business sole purpose is to perfect the shareholders' wealth, financial performance is fundamental factor. The management formulates target, objectives and simplify the accomplishment through strategies and tactics. Nzuve(2018) opined that financial performance portrays the level of objectives' attainment. Nasieku (2016) illustrated how the firms maximize the generation of income. Njeru (2020) coined that FP blueprints the organizational capability to realize the objective.

Financial performance has been explained by various researchers to illustrate the fundamental steps undertaken by firms to generate revenues. Moreover, it blueprints the capability to enhance the business stability. Yahaya and Lamidi (2015) stated that financial performance explains the proficiency of the organization. The shareholders are interested on the prospective company that has recorded periodic and predictable revenues. The financial performance denotes the financial fitness and healthiness of the firm. Moreover, it gives chief latitude to overall monetary stability of the organization. It is useful in the definition of past, present and future financial prospect of the firm.

FP has been operationalized using monetary execution; ROA in addition to ROI to blueprints the business capability. Chemosit (2021) maximized the RO on value to operationalize financial performance. According to Omondi and Muturi (2013) the benefit advancement and increase in assets are the pointers of success of the firm. Xu and Wanrapee (2014) opined that fiscal execution is a fundamental indicator of monetary success units. It is useful in the accomplishment of goals; moreover, FP can be illustrated using the NIM and ROA. This study uses the ROA to explain the financial performance of the firm.

1.1.3 Financial Risk and Financial Performance

Financial risk relates to uncertainties in the banking correlated to the defaults, interest rates volatility, liquidity predicaments, and detrimental of foreign exchange rates. According to Njiru (2020) financial risk can stem from internal bottleneck relating to financial and operational problems or externally through the inflation and foreign exchange challenges. Financial risk refers to the exposure of business uneven and

unpredictable challenges while the financial performance demonstrates the ability to generate new resources.

The shareholders are motivated by the maximization of their wealth. The preceding pragmatic researches have posted progressive findings on the financial risk verse the financial performance. According to Oluwafemi, Israel, Simeon and Olawale (2014) financial risk caused the management to strive for the financial stability. Various metrics have been used to measure performance ranging from the ROA, ROE and ROI. The periodic comparison of financial performance strives to illustrate tremendous steps undertaken by the firm to enhance their productivity. FB is useful in the determination of overall financial health and fitness within a specific timeframe. It can be useful in ranking the stability, financial fitness and financial soundness of firms within the same sector. The financial risk is a bottleneck to the financial performance while at the same time giving management opportunity to spearhead mitigation measures that translates to performance.

1.1.4 Commercial Banks

The banks are integral in the prosperity of a nation. The significant role in economic development cannot be underestimated. Commercial banks offer avenues for trade, connect borrowers to lenders and undertakes other roles on behalf of CBK. According to CBK (2022) there are 38 commercial banks after mergers and acquisition as well as fall-down and disintegration of various banks. CBK is the supreme bank mandated by the constitution to formulate and implement the fiscal frameworks, models and policies in Kenya. The banking sector reinforces transactional processes that incorporate; deposit, money remittance, giving credit among other financial products. It undertakes the

principal objective in the financial sector. Moreover, it mobilizes savings, investment and credit sourcing in the economy

CBK license and regulates the commercial banks. Currently some banks have undergone greatest challenges prompting the CBK to analyze and relook at the policies. CBK stipulated the minimum amount required for the banks to remain afloat and liquid. The average liquidity ratio was 48.5% in 2018. Moreover, it should dominate higher than 20% of their assets in liquid (CBK, 2020). This minimal threshold is requirement to ease the operation, activities and other bottlenecks in case of financial distress.

1.2 Research Problem

The financial performance is integral for all; decision making, investment, savings, shareholders value and the operation of firms. Njiru (2020) illustrated that the going concern of the companies relies on its magnitude and strength to maximize assets and generate revenues. Gathiga (2016) opined that financial risks expose the business to failure and poor production. Moreover, it can result to ineffectiveness and inefficiency. The failure to hold the correct balance as liquid assets may cause severe problems to the business. It threatens the operation, effectiveness and the profitability of the business.

According to CBK (2021) regulations have been formulated to promote the growth and the financial stability of the business. The numerous problems associated with banks ranging from placement under receivership to operational conundrum as exhibited by Dubai Bank liquidation in 2015. Besides Chase Bank's placement under receivership in 2015, Imperial Bank followed the same route in 2016. These detrimental were associated with fraudulency, misappropriation and the conflict of interest. Apart from that, the

National Bank recorded approximately Kshs. 1.2 Billion loss in year ending 2015. The reduction in the profitability among the Kenyan commercial banks in the year 2013, 2014 and 2015 with ROE of 20.9%, 20.8% and 17.3% respectively, was a clarion call for prudent management of resources to evade financial risks (Ratemo, 2021). On the other hand, many commercial banks have spurred and demonstrated good results in the same period.

Empirically, studies done globally have shown that the financial risk, firm characteristics and their categories are crucial in the commercial banks in addition to financial performance of commercial banks in Nepal (Jha and Hui, 2012). According Galletta and Mazzù (2019) the deficiency of liquid assets negatively affects the operation of commercial banks. The reduction in the profitability is a major challenge to the economy. Poor performance drives away the investors and portrays bad reputation about the banks and the management. Moreover, the developing nations have witnessed major challenges in economic turmoil and political intolerance hence contributing to poor generation of revenues. The internal factors such as operation, prudent management, accountability and efficiency are critical for the financial performance while keeping the financial risk at the manageable level based on the organizational parameters.

The financial risk (FR) and the financial performance (FP) have received more attention in Kenya. Njeru (2020) opined that financial risks are necessary for driving the commercial banks towards financial performance. Ratemo (2021) concluded that financial risks have both positive and negative association verse financial performance depending on the level and the category. Gathiga (2016) illustrated the immense adverse effect of FR on FP. Githinji (2016) demonstrated substantial and positive correlation

between FR and FP. Maniagi (2018) posted mixed outcome where credit risk was significantly and negatively correlated with the financial performance. Arbitrarily, both market and interest risk were substantially and a positively related to financial performance.

Despite numerous studies that have been accomplished expeditiously, FR and FP have voluminous association, controversies, and mixed findings hence have been recommended for more studies. Moreover, the incomplete and contradicting outcomes either relating to positive, neutral and negative association expresses the knowledge gap. The different context, concepts and methods might have steered the mixed findings. The controversies relating to FR and FP demand for comprehensive study concentrating on the commercial banks. Therefore, this research is motivated to react to the inquiry on; what is the effect of financial risk on the financial performance of commercial banks in Kenya?

1.3 Research Objective

The objective of the study is to determine the effect of financial risk on the financial performance of commercial banks in Kenya

1.4 Value of the study

The study reinforces the existing foundation and provides the reference for future scholars. It is critical for accomplishing the research objectives. It enhances the understanding and comprehension of different categories of financial risks. Moreover, it enables the scholars to develop practical techniques to enhance up-to date information. It enables the scholars to compare and explore other fields and sectors with greater depth.

The research is integral for banks and policy makers. The banks can create new knowledge and share a more insight information. The policy makers from CBK among others bodies and government agencies can obtain valuable knowledge from the study. The collaboration with the organization experts will enhance the interpretation, incorporation of new methods and upgrading the prevailing knowledge. The commercial banks can develop valuable, practical, applicable and analytical techniques risk mitigation measures that enhance the firm to stay afloat in the market.

The results are paramount in the operation and monitoring of the commercial banks. The study analyzes the in-depth connection between theories and the study. It analyzes the relevance and the missing links that research seeks to address. The study is informative on the applicable assumptions of theories. It creates an in-depth understanding, identification of valuable experiences and exploration of different categories of risks.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter incorporates the theoretical framework with the hypothesis blueprinting the study. Moreover, the study explores the determinants of FP. In addition, the research scrutinizes the empirical reviews enhancing the studies. The study seeks to fill the research gap by summarizing the literature and highlighting the research gaps. Additionally, it concludes by posting the conceptual framework to portray the association.

2.2 Theoretical Framework

The theories building the foundation of this exploration include financial intermediary theory. The theory was formulated by Gurley and Shaw (1960) to illustrate the fundamental role of banking sector in the economy. Liquidity preference theory coined by Keynes (1936) to blueprint the money verse employment as well generates knowledge on the liquidity of business. Agency theory by Jensen and Meckling(1976) is integral since it elaborates the importance of separation of ownership and operation to enhance the performance hence minimizing the financial risks.

2.2.1 Financial Intermediation Theory

It was embedded by Gurley and Shaw (1960) to advance the importance of financial intermediation in the business environment. The theory elaborates that every management of banking sector is critical in ensuring its liquidity. It is builds on the real-

world practice where banks act as the links between the individuals as well as the institutions to the supreme bank (CBK). It main objective is to eliminate the asymmetries and informational cost. The theory emphasizes on the importance of liquidity in the business operation.

The shortcoming includes the failure to eliminate the transactional cost and resolve the informational asymmetry. Ratemo (2021) illustrated that liquidity can disadvantage the bank and economy. The chief objective of intermediary is to minimize informational asymmetry while resolving transactional cost. The theory was formulated to ease the business undertaking yet there are still immense information asymmetries due to hoarding. Numerous questions arise from value addition resulting from the financial intermediaries verse the risk which appears unresolved. Additionally, the risk absorption, rewards and financial performance have experienced paradigm shift.

The theory is relevance since the banking sector acts as the risk absorbers for many clients. It bridges the mismatch relating to the supply and demands. Therefore, the business can undertake their operation without much progress by transferring the risk to banks. The banks are not limited to agency services but also active business offering quality products and unique services to savers and investors. Shittu (2012) coined the importance of banks in the risk absorption and mitigation. In addition, it bridges the loopholes existing between the borrowers and lenders.

2.2.2 Liquidity Preference Theory

As advanced by Keynes (1936) to illustrate the motive of investors in valuing greater interest rate securities that have higher maturity time. The theory opines that investors

prefer assets that are easily convertible to cash. In light of that, the cost related to securities diminishes whenever clients are willing to relinquish less of liquid assets. The theory explains the three chief latitude for holding money which include; transaction, speculative and precautionary role. Therefore, it blueprints the reason why individual prefer holding cash to saving. The theory postulates that money liquidity is a necessity for economic prosperity, stability and monetary production against savings.

The shortcoming relating to theories include the minimal focus on the existing exogenous activities such as uncertainty. Moreover, the theory overlooks the crucial role of banks and the money from bank. It does not recognize the fundamental capability of monetary units to trigger changes in the interest rates. Moreover, the investors are rational and prefer more to less in many circumstances. Therefore, they can be driven to invest in projects that generate income.

The theory is relevance since it dictates the importance of three motives of having money for transaction, speculative and precautionary. The transaction motive is integral for holding the assets that are easy to change to liquid. Precautionary illustrates the importance of cash availability for emergency and unforeseen complexities. Speculative are fundamental for investment in projects with positive NPV which may arise in the course of time. The theory exemplify liquidity preference, therefore, the commercial banks can evade adverse circumstances and financial risks by optimizing this theory. In a nutshell, the commercial banks can meet their obligation without greater complexities.

2.2.3 Agency Theory

The model was embedded by Jensen and Meckling (1976) to diverge the management and ownership of the company. The agent bestows the management of companies to the board. The board is expected to pursue the shareholders' jurisdiction and eliminate the contradictory interest hence minimizing the financial risks. Harris and Raviv (1991) argue that whenever there is greater returns than the debt-value (face-value), hence the shareholders benefit. Conversely, Omesete (2014) illustrated that managers have greater role in mitigating against risk. The minimization of risk can enhance the achievement of objectives. The executive acts on behalf of shareholders and are motivated to minimize risk. However, the risk appetite among the managers is divergent. Consequently, the motivation to business stability relies on the risk exposure scaling down via of risk exposure via the diminution measures.

The critique relating to theory includes the increase in agency cost from numerous control and monitoring measures. Moreover, the decision made by the management can expose the business to financial risks. The incremental agency cost can decrease the shareholders' wealth. The theory can lead to rampant agency challenges in the event of mismatch relating to the prioritized projects. The managers may prefer low risk projects with minimum investment while the shareholders can spearhead for higher risk with greater returns hence there is a demand for the unifying purpose of maximization of shareholders' value. In summary, the theory does not prescribe operable resolution in combating the agency problems.

The theory is relevance since it postulates the separation of management and ownership to increase the accountability and minimize the financial risk. The management of risk

can increase the business competitive advantage, boost organization reputation and increase transformation that enables the business to remain as the financial giant in the market. Njiru (2021) illustrated that agency theory is paramount in the promotion of independency hence can increase evolution of the business and minimization of risk. The management entrusted with operation of the organization is motivated to increase the shareholders wealth by applying their competence. Moreover, it stipulates the clear parameters for decision making and incorporate both short-term and longer objective which are the fundamental areas of commercial banks.

2.3 Determinants of Financial Performance

Quality outcome is registered through desirable goal realization. The performance of the commercial banks has been exemplified as subjective metrics regarding the optimization of assets. The financial fitness of banking sector cannot be exhausted without critical analysis of financial risk. Additionally, it can be quantified to pinpoint how the bank is sustaining its' operation and remain afloat in the market. The financial risk post challenges to the firm through the exposure to the complications that can drive the banks to inefficiency and ineffectiveness. CBK (2022) mandated the commercial banks to formulate and execute risk mitigation measures. The factors that determine the financial performance under this scenario embody credit risk, operating risk, liquidity risk as well as interest rate risk. The stability and performance can indicate the ability to minimize the risk and optimize the generation of revenues.

2.3.1 Credit Risk

Credit risk is good indication of the financial capability of the firm. It is critical in forecasting financial magnitude of the bank. Credit risk can influence the health status of

a firm. The risk is associated with likelihood of default in payment of debts. Commercial banks give loans to the clients and charge interest. The default in the repayment of loans can expose the business to credit risk. Njeru (2020) coined that banks assets' comprise of loan portfolio, current asset and fixed assets.

2.3.2 Operating Risk

The business operation relies on the internal factor for prudent management and efficiency. The management can effectively maximize the resources, however, the failure of process or policies can translate to the operational risk. Ongore and Kusa (2013) opined that the capability of firms to utilize resources can reinforce the business against risk. Moreover, the metrics use in the determination of operational risk can include staff quality, effectiveness and efficiency of management systems. The increase in the operational expenditures with stagnated operational income indicates financial risk.

2.3.3 Liquidity Risk

Commercial banks liquidity relates to capability of the firm to accomplish monetary demands whenever they are due. Adequate liquidity is very important for the success of the bank. The firm is obligated to protect the business against the liquidity risk to enhance the going concern. An effective bank adheres to a well-stipulated model for eradication of risk in the business. The liquidity can influence the FP of the commercial banks. It is imperative to link it to prospective collateral in stressed circumstances. Shen et al (2010) opined that liquidity risk is positively associated with the financial performance

2.3.4 Interest Rate Risk

Interests are handy in the sound judgment. It can influence saving by the investors

(Omondi & Muturi, 2013). The use of interest cap causes decrease on loans. The sudden change in interest can trigger the reduction of bond. Moreover, the change in interest rate translates to changes in the prevailing value and the futuristic cash flows. It leads to severe changes in earnings and may cause great challenges to the firm.

2.4 Empirical Reviews

Dey, Hossain, Rezaee (2018) explored the financial risk disclosure verse the performance. The study was undertaken in Bangladesh. The findings coined that the magnitude of risk disclosed affected the financial performance significantly. The investigation included the firm size as a moderating variable in the study. The study recommended for more financial risk disclosure to enhance the performance. The study was done in Bangladesh; hence a local study on the financial risk in the commercial bank is critical.

Sheng (2018) explored the financial risk verse the performance among the logistics in addition to transportation firms in Malaysia. Chieflu, both the operational in furtherance to credit risk were maximized as the predictor variables exploration. The predicted variables maximized ROE and ROA to illustrate more on performance. In addition, the multiple regression model was optimized in the research. The outcome coined a significant association linking both operational risk and credit risk to the performance. The findings cannot be generalized to reflect Kenya due to economic and technological variance. Additionally, the findings were obtained from logistics and transportation firms while the prevailing study analyzes the commercial banks to bridge the gaps.

Arif and Nauman Anees (2012) scrutinized the linkage amid the liquidity risk and

profitability. The research was undertaken in Pakistan's Banking sector. The results opined that liquidity risks affected the profitability substantially and negatively. Contextually, the study was done in Pakistan which is different geographic location and development state compared to Kenya. Apart from that, a local updated study is very special in this regard while targeting banks as the integral players of economic development.

Regionally, Marshal and Onyekachi (2014) analyzed the effect of credit risk and its' efficient use. The research was undertaken crisscrossing a period of 15 years that spanned from 1997-2012. The research was spearheaded in Nigeria; 5 Nigerian Deposit banks were considered in the research of 31 firms. Besides the utilization of 31 banks using judgmental sampling, the panel data was sourced and computed using the regression techniques covering different times. The results coined a movement in the towards same specific direction verse the credit NPL and ROA. Moreover, Loan advances portrayed a positive and significant association. It detailed that the increment of loans and advances caused an increase in the profitability of the firm. The assessment considered Nigerian firms and failed to investigate Kenyan Context.

Sisay (2017) analyzed the financial risk verse the performance. The context of study was the Ethiopian insurance firms. The research maximized panel survey methods as well as unstructured intensive interviews. The findings opined that credit risk, solvency risk and liquidity risk was inversely correlated with ROA. The study was undertaken in Ethiopia while the prevailing study's focal point is Kenya. Moreover, the study diverges from the insurance studied to the commercial banks.

Ahmed (2011) undertook an inquiry on risk management. The epicenter of the investigation was Islamic Bank. The objective was to explain the enablers influencing the risk management in Pakistan. The study operationalized predictor variable using size, NPLs ratio, capital adequacy, as well as the asset management. The study was undertaken in four years spanning from 2006-2009. The finding wrapped-up that bank size affected the financial risk substantially and significantly. Moreover, operational risk posted an inverse but not significant association. Moreover, the asset management was both significantly and positively associated with liquidity and operational risk. The research pivotal area was the Asia Market on the other hand this study focus on Kenya set-up.

Kithinji (2010) undertook an invesigation on the credit risk management verse the profitability. Additionally, the computation concentrated on the commercial using NPL as the pointer of effectiveness of loans. Aggregate loans and advances were epitomized as the intervening variable. The predicted variable used was ROA. The study summarized by opining the absence of significant association amid credit risk and ROA (profitability). The research concentrated on credit risk verse the profitability while the prevailing study analyzes financial risk among the commercial banks in Kenya.

Muriithi (2016) assessed the influence of financial risk on performance. The pivotal area of study was commercial banks in Kenya. The study looks at the 43 commercial banks operational from 2005-2014. The secondary data were obtained to enhance the analysis and the findings. The research concluded on the inverse correlation between FR and FP among. Besides different predictor variables, the current study analyzes the available commercial banks after some banks collapsed while others have undergone mergers and acquisition. In light of that, it provides updated information in the commercial market.

Wanjohi, Wanjohi and Ndambiri (2017) delved into the financial risk management and performance. The research was done in Kenya Banking sector. The study was critical in analyzing and sourcing the primary data to expound the association. The multiple regression was epicenter for the explanation of the prevailing correlation amidst the regressor and the regressed variable. The study epitomized first-hand data while the prevailing study maximize on the secondary data.

2.5 Conceptual Framework

Conceptual framework is a schematic diagram that gives the general association between the explanatory and the explained. Hence, this investigation analyzes different categories of risk as the explanatory variables. These include credit risk, operating risk, liquidity risk as well as the interest rate risk. The predicted variable is ROA as illustrated diagrammatical in a snapshot.

Independent Variable **Dependent variable**

Financial Risk **Financial Performance**

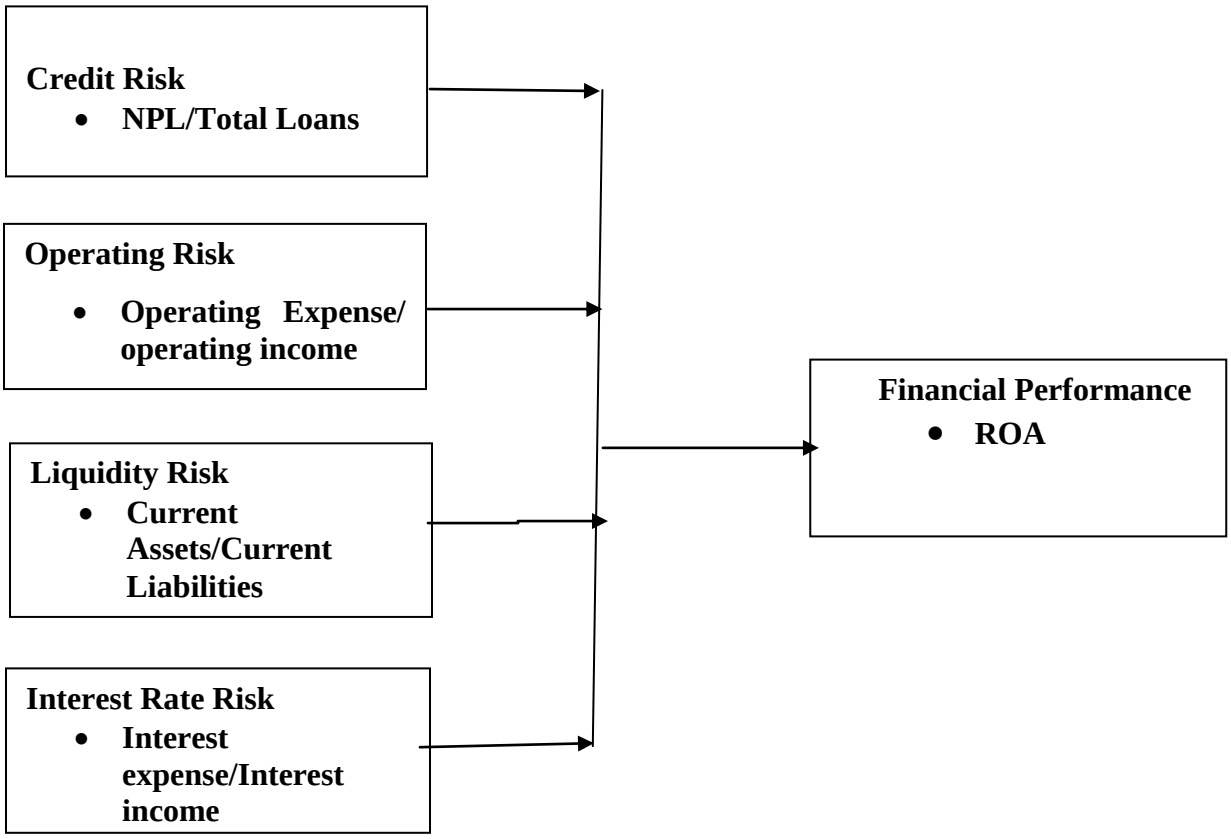

Figure2.1: Conceptual Framework

Source: Researcher 2022

2.6 Summary of the Literature Review and the Research Gaps

Globally, Dey, Hossain and Rezzae (2018) in Bangladesh concluded that financial risk affected the performance negatively. Moreover, it increased the predicaments facing the firms while Sheng (2018) in Malaysia illustrated that the financial risk and financial performance have both positive and negative correlation. From the review several studies

accomplished have stated the controversial and mixed findings due to the different geopolitics, economic state and technological variances.

Regionally, Marshal and Onyekachi (2014) in Nigeria illustrated the crucial blueprints of financial risks verse the performance. On the other hand, Sisay (2017) in Ethiopia indicated the inverse correlation between FR and FP. Locally, Murithi (2016) maximized secondary data to attain far-reaching findings. Wanjohi, Wanjohi and Ndambiri (2017) prioritized primary data. The findings stipulate an inverse association between financial risk and performance. Though these local studies concentrated in the banking sector, they did not incorporate all the four variables recognized under this study. Moreover, there are numerous differences in terms of research concepts, problem, methodology and context of the study thereby widening the research questions and knowledge gap which the prevailing study seeks to solve.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter is integral pillar for the assessment design. Additionally, it elaborates the in-depth knowledge about the population. It highlights the supreme techniques for data collection. Moreover, it pinpoints the data analysis supported by the analytical model suitable to the research objective. It entails the diagnostic tests and inferential statistics. In summary, it addresses wide-array of issues spanning from research objective, gaps and the current trends that need forecasting.

3.2 Research Design

Research design dispenses a roadmap for garnering, measuring, reviewing and analyzing data. It illustrated the greater outlook of research in terms of coherent, systematic and its capability to address the prevailing challenges. Cooper (2011) illustrated the supremacy of research design in the presentation and interpretation of results. It combined both quality and quantity to reinforce the in-depth findings. This study maximized descriptive research design to illustrate the cause and effect correlation among the variables.

Creswell and Creswell (2017) opine that research design incorporates the framework for obtaining and running the analysis. It created avenue for analysis and interpretation of data in order to bridge the existing gaps. Kothari (2015) indicated the importance of creating interlink between the variables through optimization of descriptive research design. Descriptive design is therefore a master plan enhancing this study to demonstrate the cause and effect correlation.

3.3 Population

The research population is the aggregate observation made within specific time (Burns & Groove, 2010). This research considers the 38 commercial-banks ranked by CBK as at 31st December, 2021. This research is in form of census since it scrutinizes all the elements. The data was sourced from CBK, KBA and the individual banks. The population chosen provided sufficient outcome to bridge the knowledge gaps. It enhanced forecasting since census study is very supreme in generalization. All the banks operational as at 31st December, 2021 are in appendix I.

3.4 Data Collection

The data was generated from second-hands means. This means the information was generated from PAFS. The secondary data provided crucial information on the past characteristics, current trends and future approximation if all the factors remain unchanged. The secondary data enhanced the quality and unique quantities that can be computed and interpreted to give far-reaching recommendations and policy formulation. Mugenda and Mugenda (2010), coins that sufficient data from population enhanced by quality data collection techniques promote vigorous scrutiny thereby resulting in transcendence outcome. The period of research spans from 2017 to 2021 relating to risk categorized into credit, operation, liquidity and interest.

3.5 Data Analysis

The data sourced from secondary means was subjected to vigorous process and thorough procedure to enhance its standards. The valuable data was ready for analysis after assembling, reviewing, classifying and coding. The pre-eminence of data was the

cornerstone towards realization of accurate and reliable findings. The research was maximized SPSS to analyze and to generate multiple linear regression.

3.5.1 Diagnostic Test

The facet of association, magnitude and direction is driven by the links existing among variables. Therefore, multicollinearity test was undertaken through the use of Variance Inflation Factor (VIF) normality test will be done through combination of Shapiro-Wilk and Kolmogorov-Smirnov. In addition the autocorrelation maximized Durbin Watson. Normality stated the pattern of data to inform the findings. Autocorrelation highlights the randomness while multicollinearity places concentration on the links among the predictor variable. The presence of multicollinearity informs dropping of highly correlated regressor variables.

3.5.2 Analytical Model

The data inspection was spearheaded to reach a conclusive findings elaborating on the existing association. The model demonstrates the correlation in a snapshot. It pinpointed several aspects in cases of combination of all predictor variables to explain the predicted variable. Therefore, the model can be summarized in this format;

$$\mathbf{Y=\alpha_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\varepsilon}$$

Whereby:

Y= Financial Performance (Operationalized by ROA)

α_0=y intercept-regression (constant variable)

X_1= Credit Risk (Ratio of NPL to Total Loans)

X_2= Operational Risk (Ratio of Operating Expenses to Operating Income)

X_3= Liquidity Risk (Current Assets to Current Liabilities)

X_4= Interest Risk (Ratio of Interest Expense to Interest income

ε= error term (Probable error)

3.5.3 Inferential Statistics

The research sought to determine the significance level. T-test and F-test was paramount in the explanation of significance levels. Therefore, 5% and the 95% indicates the confidence level. Moreover, the analysis of variance explains the spread of data with the relation to the mean. Therefore, different data will be compared and analyze to enhance comprehension.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION OF RESULTS AND DISCUSSION

4.1 Introduction

The chapter is fundamental for explanation of diagnostic tests that permit researcher to undertake more analysis. Additionally, it incorporates the descriptive statistics to blueprint the nature of data in terms of maximum, average and minimum values thereby accentuating the variability. Furthermore, it entails inferential statistics, the discussion of the output and it interpretation.

4.2 Diagnostic Test

The diagnostic are crucial in identifying the efficacy of model maximized in the study. This is because of fitness and soundness in the explanation of the connection amid the explanatory and the explained variable as coined by the financial risk and performance respectively. The diagnostic tests undertaken were normality and multicollinearity whereas autocorrelation topped-up the outcome.

4.2.1 Multicollinearity test

The interlinked among the predictor variables in the multivariate regression results in the multicollinearity problems. Therefore, multicollinearity is a statistical test in which regressor variables are extremely connected in modelling of the multiple regression. Researcher used the output of tolerance and VIF values to interpret the multicollinearity among the variables. Multicollinearity presupposes the worthiness of additional factors for high rate of exactitude. Though it cannot reduce the model authenticity, it posts great influence to the explanatory variables. The rule in this field is that values should be below

10 for VIF though whenever it exceeds 5 an in-depth inquiry is needed. On the other side, values greater than 0.2 in Tolerance indicates no multicollinearity. From the analysis demystified and tabulated in 4.1 there are no multicollinearity from that point no values is higher than 10 for VIF and absence of figure below 0.2

Table 4.1 Multicollinearity Tests

Model		**Collinearity Statistics**	
		Tolerance	**VIF**
1	(Constant)		
	Credit-Risk	.979	1.021
	Operating-Risk	.925	1.081
	Liquidity-Risk	.955	1.047
	Interest-Rate-Risk	.876	1.141

4.2.2 Autocorrelation

The autocorrelation signifies the cross association amid the explanatory and explained variable in different focused time. The data was cleared for autocorrelation predicaments before major analysis were undertaken. The presence of autocorrelation invites an intensive analysis and more re-tests. In general, the null hypothesis presupposes the non-apperance of serial correlation. From the output and induction in table 4.2, there is no autocorrelation hence the researcher failed to reject the null hypothesis since it exhibited non-identified connection amid two phenomena. The Durbin-Watson was within the stipulated range as elaborated by 1.504

Table 4.2 Autocorrelation Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.694[a]	.482	.471	.0200291	1.504

a. Predictors: (Constant Risk), Interest , Credit, Liquidity, Operating

b. Dependent Variable: FP

4.2.3 Test for Normality

Test for normality is done to detect the normality in the distribution of data. The researcher epitomized the Shapiro-Wilk test and the Kolmogorov–Smirnov test. The output on the table 4.3 below shows that outright variables have p-values below 0.05. This portray that the data was normally distributed.

Table 4.3 Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Financial-Performance	.233	190	.000	.544	190	.000
Credit-Risk	.451	190	.000	.068	190	.000
Operating-Risk	.190	190	.000	.857	190	.000
Liquidity-Risk	.079	190	.006	.973	190	.001
Interest-Rate-Risk	.041	190	.020[*]	.989	190	.031

*. Lower bound of the true significance.

a. Lilliefors Significanc-Correction

4.3 Descriptive Statistics

The descriptive statistics shows the summary of the variables. Financial performance registered a mean of 0.0320909 and SD of 0.0275270. Credit risk in the 2017-2021 periods recorded a mean of 0.0230 and SD of 2.5124 while operating risk recorded a mean of 0.2929 and SD of 2626. Liquidity recorded a mean of 0.5148 and standard deviation of 0.2208 while Interest rate registered an average of 0.3792 and SD of 0.1607. From

Table 4.4 Descriptive Statistics

	N	Min.	Max.	Mean	Std. Deviation
Financial-Performance	190	.0123	.2319	.032909	.0275270
Credit-Risk	190	.0230	34.7220	.333005	2.5124016
Operating-Risk	190	.0060	.9915	.292961	.2626974
Liquidity-Risk	190	.0021	.8900	.514893	.2208429
Interest-Rate-Risk	190	.0102	.9576	.379272	.1607076
Valid N (listwise)	190				

In Table 4.4 the SD for the financial performance was delineated by 0.0275270 which indicates low variability rates. Moreover, from the critical interpretation of minimal and maximum figures of 0.123 and 0.2319 posit that commercial banks utilized assets to generate higher returns. Credit risk posted SD of 2.5124016 thereby pinpointing highest variability. Hence, the credit exhibited high deviation among firms since the mean was 0.333005. Additionally, the SD of operating risk was 0.2626974 hence meaning the

income generated exceeded the risk posted. The SD of liquidity risk was 0.2208429 thereby highlighting that there were minimal variances across the banking sector. Additionally, the amount generated from utilization of current assets exceeded the risk faced by the firm. Finally, interest rate risk recorded SD of 0.1607076 that coined the lowest deviation among all firms. From the cross-examination, having an average of 0.379272 defined the absence of great variation for all firms. It also posits that income from interest charged was beyond the experienced risk.

4.4 Correlation Analysis

The correlation investigation encapsulates the relationship among various variables under assessment. Hence, the findings can either be positive or negative or a perfect correlation. Credit risk, liquidity risk as well as interest rate risk recorded positive correlation towards the financial performance while operating risk posted a negative correlation of (p=-0.383, r=0.000) towards the Financial Performance. The findings were in concurrence with Shimenga and Miroga (2019) opinion that financial performance is positively associated with liquidity. Nonetheless, it was inconsistence with Abubakar, Sulaiman & Haruna (2018) definition of negative association amid the same variables.

Credit risk recorded a strong positive connection of (r=0.506, p=0.000) towards the dependent variable while liquidity risk and interest rate risk posed a weak positive correlation of (p=0.113, r=0.122) and (p=0.257, r=0.000) respectively towards the financial performance. This insinuated that a movement to the same direction amid the financial performance and credit risk.

Table 4.5 Correlation

Correlations

		Financial-Performance	Credit-Risk	Operating-Risk	Liquidity-Risk	Interest-Rate-Risk
Financial-Performance	Pearson Correlation	1	.506**	-.383**	.113	.257**
	Sig. (2-tailed)		.000	.000	.122	.000
	N	190	190	190	190	190
Credit-Risk	Pearson Correlation	.506**	1	-.041	.002	.121
	Sig. (2-tailed)	.000		.578	.982	.097
	N	190	190	190	190	190
Operating-Risk	Pearson Correlation	-.383**	-.041	1	-.010	.256**
	Sig. (2-tailed)	.000	.578		.892	.000
	N	190	190	190	190	190
Liquidity-Risk	Pearson Correlation	.113	.002	-.010	1	.201**
	Sig. (2-tailed)	.122	.982	.892		.006
	N	190	190	190	190	190
Interest-Rate-Risk	Pearson Correlation	.257**	.121	.256**	.201**	1
	Sig. (2-tailed)	.000	.097	.000	.006	
	N	190	190	190	190	190

**. Correlation (significant 0.01 level 2-tailed).

4.5 Regression Analysis

The researcher spearheaded a comprehensive regression scrutiny at 95% confidence interval between the financial performance and Interest rate risk, operating risk, liquidity risk and credit risk. The four enabling variables were analyzed against the predicted variables (financial performance) to exemplify the level of influence.

4.5.1 Model Summary

Table 4.6 Regression Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.694[a]	.482	.471	.0200291	1.504

a. Predictors: (Constant), Interest-Rate-Risk, Credit-Risk, Liquidity-Risk, Operating-Risk

b. Regressed Variable: FP

From the above table 4.6 the R signified correlation among the variables in the research investigation. This therefore opines that there is 69.4% connection among the variables analyzed in this assessment. The R-Square is the coefficient defining the portion of influence by the explanatory variables on the explained variable. The value 0.482 implies that 48.2% variation in financial performance articulated via ROA as triggered by; Interest rate risk, operating risk, liquidity risk and credit risk while the remaining 51.8% variation from 100% are caused by different enablers not defined in this computation.

4.5.2 ANOVA

The T test conducted by researchers was to find out the significance of each variable in predicting the performance of banks. The F statistic tabulated was 42.997 and the

significance level was 0.000. This significance value is lower than 0.05 p-value it ease the deducing that the model was substantially significant.

Table 4.7 ANOVA

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.069	4	.017	42.997	.000[b]
	Residual	.074	185	.000		
	Total	.143	189			

a. Dependent Variable: FP

b. Regressor: (Constant), Interest-Rate-Risk, Credit-Risk, Liquidity-Risk, Operating-Risk

4.5.3 Coefficient of Determination

This statistical analysis was used in generating the model fit. The coefficients postulate that the size and the directional rship of both the regressed variables and the regressor variable. From this table if all factors are held constant financial performance have a positive effect of 0.022. The results divulged that credit risk, liquidity risk and interest rate risk have positive effect on financial performance. Thus, a unitary change in credit risk, liquidity risk and interest rate risk leads to an addition of ROA (financial performance) by 0.005, 0.006 or 0.052 respectively. Further to the results, operating risk posts a negative power against ROA hence implying that a unit increment in liquidity risk replicates a negative effect of 0.046 on the ROA (FP) when all other factors are held at 0.

Table 4.8 Coefficient of Determination

Coefficients[a]												
Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**	**95.0% Confidence Interval for B**		**Correlations**			**Collinearity Statistics**	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	.022	.005		4.641	.000	.013	.031					
Credit-Risk	.005	.001	.451	8.429	.000	.004	.006	.506	.527	.446	.979	1.021
Operating-Risk	-.046	.006	-.443	-8.050	.000	-.058	-.035	-.383	-.509	-.426	.925	1.081
Liquidity-Risk	.006	.007	.046	.851	.396	-.008	.019	.113	.062	.045	.955	1.047
Interest-Rate-Risk	.052	.010	.306	5.417	.000	.033	.072	.257	.370	.287	.876	1.141

1

a. Dependent Variable: FP

The regression equation was estimated as

$$\mathbf{Y = 0.022 + 0.005\ X_1 - 0.046\ X_2 + 0.006\ X_3 + 0.052\ X_4}$$

Whereby;

Y = Financial performance (ROA)

X_1 = Credit risk

X_2 = Operating risk

X_3 = Liquidity risk

X_4 = Interest rate risk

4.6 Discussion of Research Findings

From the above findings descriptive computation implied that financial performance of the banks in the period of 2017-2021 posted a least value of 0.0123 and a maximum of

0.2319. Credit risk posted a minimum of 0.0230 and 34.720 highest while, operating risk least value recorded was 0.0060 and a greatest value of 0.9915. Liquidity risk minimum value was 0.0021 while maximum value was 0.8900. Further the data collected for interest rate risk posted a minimum of 0.0102 and a maximum of 0.9676.

The correlation statistics among the study variables showed a positive linkage between Credit risk, liquidity risk and interest rate risk towards (financial performance) ROA while operating risk was negatively correlated to ROA (financial performance). Credit risk had a strong positive correlation towards the financial performance while operating risk had a strong negative correlation towards the financial performance. The results are consistent with Ahmed (2011) postulation that operational risk moves in different direction with the ROA. Sisay (2017) instantiated that credit risk in addition to liquidity risk were inversely linked to the financial performance contrary to the current findings.

In the regression analysis, the determining coefficient was 0.482 implying that 48.2% of variation in financial performance was linked Interest rate risk, Operating risk, Liquidity risk and Credit risk. The model summary also showed that there was 69.4% correlation among the variables under study. The significance value as seen from ANOVA table was 0.000 which far below the p-value of 0.05 thus indicating that the model was statistically significant. The Findings in the coefficient of determination showed that credit risk, liquidity risk and interest rate risk recorded a positive correlation towards the financial performance. Operating risk on the other hand had negative influence on the outcome of the financial performance.

In summary the study indicated that financial risk is linked to the financial performance. Arif and Nauman (2012) pinpointed that liquidity risk has negative though significant correlation verse the financial performance. Nevertheless, the finding is contradictory to prevailing study which states the positive correlation amid liquidity and financial performance. Additionally, Sheng (2018) elaborated that operational risk impacted on ROA positively which is inconsistence with the prevailing findings. Dey, Hossain and Rezae (2018) stated the financial risk as a supreme yardstick triggering performance hence concurring with this study.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This is the epicenter for summarizing, recommending besides wrapping-up. The chapter is indispensable in the generalization of the results, summarizing the cardinal findings, concluding the comprehensive information and recommending policies and practices. The study highlights the areas for rigorous and logical inquiry. Importantly, it accentuates the problem resolution techniques connect dots on research gaps. It is worthwhile instantiating that this chapter expresses supremacy in clarification, intensification and elaboration.

5.2 Summary of the Research Findings

The pivotal driving force of this assessment is to explore the effect of financial risk on the (financial performanc0. Nonetheless, to pinpoint that the study was aided by the audited financial reports generated from the CBK. Interestingly, the proxies of financial risk included the credit risk, operational risk, liquidity risk and credit risk. The four explanatory factors reinforced the elucidation of the major findings. Moreover, the financial performance was the explained variable with its proxy being ROA. The data was assembled for timeframe spanning from 2017-2021. This was sufficient to shed a brighter light as well as ascribing the concepts of the study.

The findings diagnostic computation was a door opener for more comprehensive analysis. The multicollinearity accentuated that the four predictor variables in the research study did not have inter-connection among themselves. The Durbin Watson value obtained from mathematical quantification was 1.504 posting that the data was within the normal

range. Additionally, the output on normality test raised no alarm but exhibited quality data cardinal for further inquiries.

The regression analysis demystified an intensive outcome based on 95% confidence degree. The four regressor variables such as; interest rate, operating, liquidity and credit risk were contrasted with financial performance. ANOVA T-Test spearheaded by this investigation posted 0.000 value hence below 0.05 while F-Test resulted in 42.997 hence portraying statistical significance. The analysis posted a positive linked with performance by credit, liquidity and interest risk.

The descriptive analysis gave chief latitude to the average, highest and least values. In addition it examined the standard deviation to define the variability in the study. The findings postulated SD of 0.0275270 for the financial performance. Even though its' least and highest values were 0.123 and 0.2319 respectively, it had lowest variability rates. The credit risk posted SD of 2.5124016 hence posting highest variation. More specifically, the SD for operating risk was 0.2626974 indicating that operational income exceeded the prevailing risk. On the other side, liquidity risk recorded SD of 0.2208429 hence giving low variability. Further, interest rate risk defined SD of 0.1607076 that illustrated the lowest variability. It signifies high interest income compared to interest related risk.

The correlation quantification and computation defined movement and magnitude. From in-depth scrutiny; credit risk, liquidity and interest rate risk displayed a positive association. Nevertheless operation risk reported a negative association. The study contradicted Arif and Nauman (2012) indication that liquidity has inverse connection

with performance. Nonetheless, it did not concur with Sisay (2017) position that credit risk, solvency risk, and liquidity negatively and substantially causes changes in ROA. It expounded on the accentuation by Dey, Hossain and Rezaee (2018) that financial risk is vital for business survival, reaping from opportunities and going against risk to reap greater returns.

5.3 Conclusion

The regression computation resulted in R of 0.694 and R-Square of 0.482 thereby designating that credit risk, operational risk, interest rate risk and liquidity risk amounted to 48.2% of variables expounding on the financial performance. The other factors not captured in this assessment amounted to 51.8%. Needless this is to pinpoint that this factors accounted for a substantial portion of determinants affecting ROA. It wraps-up that financial risk plays the vital part in the financial performance in the banking sector.

A study performed systematic calculation of confidence level. The F-Statistic keyed in was 2.997 with the significance level of 0.000. The threshold stipulated a figure below 0.005 for the statistic to stand the test. The findings of $P=0.000<0.05$ affirming the good fit model. In a nutshell, it explains statistically significance in this case.

The correlation computation sought to articulate the links among the variables. The outcome began from positive, perfect or negative connection. Hence credit, liquidity and interest rate risk moved in the same direction with the financial performance. Nevertheless operation risk posted negative trends. The descriptive statistics expounded on the averages, lowest, highest and SD for 2017-2021 based on the in-depth inquiry, financial performance portrayed SD of 0.0275270 hence showing that there is no much

deviations. Credit risk, operating risk and liquidity risk registered SD of 0.0230, 0.2208, and 0.1607 respectively hence elucidating minimal variance from their subsequent mean.

Finally, the association amid the regressor verse the predicted factor was undertaken systematically yet rigorously. The output gave deeper knowledge on the nature and magnitude of financial risk. Additionally, it gave chief and indispensable knowledge on their connection as well as influence on the financial performance. Simply put, when all factors are held unchanged, the financial performance at positive 0.022 hence defining business is still generating return. In addition, an addition of one unit of credit risk heightens the increment of financial performance by 2.2%. Nevertheless, an increase in single unit of operating risk translates to decrement in the financial performance by 4.6% if other variables remain unchanged. Further, the advancement of singular unit of liquidity risk changes the financial performance by positive value of 0.6% whenever other influencers are maintained constant. Finally, a unitary addition of interest rate risk causes positive adjustment in the financial performance by 5.2% only whenever other enablers are stagnated to remain unchanged. This is well-captured under this coefficient summary.

$$\mathbf{Y = 0.022 + 0.005\ X_1 - 0.046\ X_2 + 0.006\ X_3 + 0.052\ X_4}$$

Whereby;

Y = Financial performance (ROA)

X_1 = Credit risk

X_2 = Operating risk

X_3 = Liquidity risk

X_4 = Interest rate risk

Based on the output, it is vital to indicate that the study is in accordance to Shimenga and Miroga (2019) postulation that ROA and liquidity are positively linked. In contrast Abubakar, Sulaiman and Huran (2018) opinion that financial risk negatively impact on ROA. According to Sisay (2017) the inverse association is inevitable amid the credit and liquidity risk contrary to the updated findings. Therefore, this assessment is fundamental in bridging the existing gaps that might have been overtaken by trends.

5.4 Recommendation

Recommending key areas for exponential and giving an elaborate is perspectives. The study delved into the effect of financial risk in the explanation of predicted variable (financial performance). Therefore, an exploration was undertaken in the banking sector due to its substantial role in economy and its much reliance on the financial services which are intertwined with risk. The study indicated that maximization credit risk translated to increase in the financial performance. Therefore, this assessment advocates for optimum credit risk level that creates higher shareholder value without causing losses to the firms.

The in-depth inquiry postulated that operational risk is inversely associated with the financial performance. Based on that, it is imperative to concentrate on enhancing the operational income, minimizing the inefficiency and effectiveness. Importantly, the operational points should be examined cut down areas causing financial distress. Additionally, the optimum level of operational risk must be quantified so that the commercial bank can absorb minimal predicaments but increase operational revenues.

The findings posit that liquidity risk positively influenced the financial performance. It is worthwhile instantiating that banking should endeavor to maximize their current assets to generate high income, reap from the existing opportunities and thrive in the market. The determination of maximum liquidity risk that can be withstood by the banking sector is an eye-opener for quality framework. The banking should put clear policies enable the business to gain momentum and size opportunities. This increase chances of sustainability in the market as a bonus to economies of scale.

Finally the study accentuated a positive and noteworthy effect on the financial performance by the interest rate risk. Importantly, study recommends for rigorous establishment of quality level of interest rate that reduces chances of losses but substantially increase the financial performance. The careful assessment of attractive interest rate that impact positively to ROA should be highlighted. The banking sector should always seize available opportunities and reap immensely. Cognizant of the results, the study recommends for uniqueness in harness, tapping and reaping from existing opportunities.

The banking sector is the lifeblood of development. A demand for well-constructed risk control tool is critical for jumpstarting the quality performance. The incorporation of

technological innovation eliminates unnecessary expenditure that is costly to the bank. Hence, this leads to increase profits and business stability. The banks should endeavour to diversify risk and initiate the risk mitigation measures. Moreover, the lower risk exposure ensures banking is operational optimally. The financial analysts should be well-resourced with current tools and equipment for predicting the credit downturn and acting according. Arbitrarily, the management should desire to build good reputation which attracts investors and creditors.

5.5 Limitation of the study

The study attained meaningful and substantial milestone though it faced some limitations. The study relied on the secondary information posted on the CBK for commercial banks in Kenya. Nevertheless, authenticity of information is difficult to verifiable since at times accounting information are subjected to earning management and creative accounting aimed at passing incorrect information to attract investors. The detrimental were resolved through reliance on audited as well as published financial reports authorized by CBK. Therefore, the research presupposes that all audited information was up to date, credible, reliable and legitimate.

The sourcing of secondary data was time consuming and needed more resources such as airtimes bundles, comparison of financial reports posted on banks websites with annual reports. Additionally, the information sourced was not first-hand hence may reflect past trends against objective of the prevailing study. However, the researcher assembled quality and completed data that blueprinted the above meaningful and statistical results. However, it was devoid of qualitative information which is indispensable in the decision making.

5.6 Suggestion for Further Study

The investigation accomplished fundamental objective of bridging the knowledge gap. Basing on the findings the study recommends for replicate study focusing on SACCOs and Micro-financial Institutions. These are financial sectors that can be analyzed to rubberstamp the preceding findings or even contradict them.

The study on effect of digital-risk on the financial performance can be undertaken to define the degree of risk associated with electronic methods posting danger to the business. The study can aid in decision and policy formulation to fit the fast-paced and digitalized business environment. The study can enable formulation of sound and credible policies that can withstand the uncertainties and predicaments.

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APPENDICES

Appendix I: List of Commercial Banks as at 31st December, 2021

Name of Commercial Bank	
ABSA Bank Kenya	
Access Bank Kenya	
African Banking Corporation Limited	
Bank of Africa Kenya Limited	
Bank of Baroda (K) Limited	
Bank of India	
Citibank N.A Kenya	
Consolidated Bank of Kenya Limited	
Co-operative Bank of Kenya Limited	
Credit Bank Limited	
Development Bank of Kenya Limited	
Diamond Trust Bank Kenya Limited	
DIB Bank Kenya Limited	
Ecobank Kenya Limited	
Equity Bank Kenya Limited	
Family Bank Limited	
First Community Bank Limited	
Guaranty Trust Bank (K) Ltd	
Guardian Bank Limited	
Gulf African Bank Limited	
Habib Bank A.G Zurich	
I&M Bank Limited	
Kingdom Bank Limited	
KCB Bank Kenya Limited	
Mayfair CIB Bank Limited	
Middle East Bank (K) Limited	
M-Oriental Bank Limited	
National Bank of Kenya Limited	
NCBA Bank Kenya PLC	
Paramount Bank Limited	
Prime Bank Limited	
SBM Bank Kenya Limited	
Sidian Bank Limited	
Spire Bank Ltd	
Stanbic Bank Kenya Limited	
Standard Chartered Bank Kenya Limited	
UBA Kenya Bank Limited	
Victoria Commercial Bank Limited	

SOURCE: CBK 2022

Appendix II: Data Collection Instrument

Bank/Year	Non-Performing Loan	Total Loans	Operating Expenses	Operating Income	Liquidity Assets	Total Assets	Interest Expense	Interest Income
2017								
2018								
2019								
2020								
2021								

Appendix III: Summary of Data Collection Instrument

Bank Name	Credit Risk	Operating Risk	Liquidity Risk	Interest Risk	Performance (ROA)