

**THE EFFECT OF CREDIT RISK MANAGEMENT STRATEGIES ON
FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA**

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D61/5356/2017

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF
MASTERS OF BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS,
UNIVERSITY OF NAIROBI**

2021

DECLARATION

This project is my original work and has not been submitted for a degree in any other University or academic institution

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This project has been presented for examination with approval as the University Supervisor.

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ACKNOWLEDGEMENT

The research project would not have been a reality without the input of a few individuals and groups that I wish to recognize. Special appreciation goes to my supervisors, Dr. Ng'ang'a and Dr. Kennedy Okiro, for their guidance, support and facilitation so far.

My family and friends for their words of encouragement when writing the project.

To my Faculty lecturers, and the School of Business, thank you for your assistance in many ways. This gave me an easy time when I was undertaking my studies.

DEDICATION

I dedicate this work to my wife, our two sons Alvin and Ethan, my mum, dad and all my siblings for their support and sacrifices in many ways

ABBREVIATION AND ACRONYMS

CBK	Central Bank of Kenya
CMA	Capital Markets Authority
CRM	Credit Risk Management
ECL	Expected Credit Loss
IFE	International Fisher Effect
IFRS	International Financial Reporting Standard
IRB	Internal Rating Board
UK	United Kingdom
ROA	Return on Assets

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ABSTRACT

The management of credit is critical to any firm since it impacts significantly on firm performance. Effective management of credit is a requirement for the stability of a financial institution and continuous generation of profit while poor management of credit is a leading cause of loss and sometimes death of an institution. This study was set out to establish the effect of credit risk management strategies on financial performance of commercial banks in Kenya. To accomplish this objective, the researcher employed a descriptive type of design so as to address the research question. The study population involved 40 commercial banks. Quantitative secondary data was utilized was collected by the use of a data collection instrument. Data for the period (2016 to 2020) was retrieved from the Central Bank of Kenya reports, Kenya National Bureau of Statistics and was used. Primary data was gathered using questionnaires. The study applied both descriptive and inferential statistical approaches in analysis. Tests to diagnose the data were used kolmogorov-Smirnov and shapiro-wilk; the data was found to be distributed normally. Descriptive analysis involved mean, normality, standard deviation, while inferential analysis included regression analysis. Tables were utilized be to present the analyzed data. The study revealed that credit: terms, appraisal, policy and control were significantly linked to ROA, while firm size and default rate was insignificantly linked to ROA. Further, findings disclosed that credit: terms, policy, control and appraisal were positively associated to ROA, on the other hand, firm size and default risk were inversely associated to ROA. CBK plays an integral role in policy development hence should be deeply involvement in credit management to ensure proper standards are maintained so as to protect both commercial banks and the customers. Credit appraisal enhanced bank performance; considering that this is first step that the credit officer conducts before deciding whether to issue credit or not. There were adequate measures to regulate credit risk and shield commercial banks from exposure to loss through default for example, guarantee credit policy. Most commercial banks had arrangements with insurance companies for credit insurance and collateral as well as loan covenants through a lawyer to minimize credit risks and loan defaults. Effective supervision of credit risk and monitoring impacted positively on bank performance since it helped to minimize non-performing loans. The limitation faced by the researcher was scope, as the study was restricted to commercial banks only. A multi-sectoral study would be more exhaustive in terms of richness of findings and association between the variables. In the foreseeable future, researchers interested in this field of research can do a replica of this research in a different sector for example, Microfinance banks where loans are issued using more flexible credit policies because of the nature of their operations and the products and services that they offer. Then, the findings can be compared after which a plausible conclusion may be drawn.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Credit risk is increasing becoming a major concern among financial institutions across the world. This has prompted financial institutions to adopt prudent lending practices to minimize exposure to credit risks. However, Olabamiji and Michael (2018) contend that interest from loans is one of the main sources of revenue for commercial banks thus it is important to devise credit management mechanism that balance both the needs of the bank and the borrowers. Thus, effective management of credit risk strategies is essential in achieving the firm's objective of financial performance in the short-term and long-term. There is need for financial institution should develop strategies to minimize credit risk since it creates a huge barrier to the financial success of lending institutions (Bagchi, 2016).

Theories that guided this study include: Information Asymmetry theory, Credit Scoring Model and Agency theory. Ledyard (2008) postulates that information disparity among buyers and sellers often results to market inefficiencies because a party with more information than the other can use for their own advantage. Thomas, Eldelman and Crook (2002) posit credit scoring model is a tool for managing risk that examines whether the application is credit worth by estimating the likelihood of default based on historical information. It applies a variety of tools to classify causes using integrated information into a single value to measure risk. Meckling and Jensen (1952) opine that agency theory puts more emphasis on the conflict amidst goals, resulting from different individuals who, while working for these firms, give priority to their best interest.

Kenya's banking sector has gone through several transformations resulting from technological innovations, globalization and deregulation (CBK, 2019). External and internal factors have contributed to structural changes and affected performance of the bank industry. In spite of these changes, the bank industry has continuously recorded a steady growth. The main source of income for commercial banks is loans, and the strategies used by banks to manage their credit facilities has an effect on their financial performance (Ongore & Kusa, 2013). However, growth of borrowers and defaults from loans pose a huge risk to bank earnings as lenders continue to provide for billions towards expected losses from credit. These higher provisions have continuously impacted negatively on commercial banks' financial performance (Muiruri. 2020).

1.1.1 Credit Management Strategies

Weber (2012) asserts that risk management involves the systematic application of policies of management, practices, and procedures to the tasks of identification, analysis, assessment, treatment, and monitoring risk. Olabamiji and Michael (2018) define credit risk management as a process that involves identifying, measuring, monitoring, and controlling risks emanating from the probability of default in loan repayments. On the other hand, strategy entails a policy or plan of action designed with an aim of achieving a major or overall outcome. To solve a problem or achieve a given goal, a plan or method is chosen. Credit risk management are the policies and plans of actions that a financial institution adopts to actively manage the credit risks it faces.

There are four important areas that a risk management program that is sound and comprehensive should address: establishing the risk credit risk environment; conducting operations in a sound granting process; maintaining the right process of administering, measuring, and monitoring credit; and ensuring effective controls over credit risk.

There is a possibility of variations in strategies of specific credits risk management among financial institutions based on the nature together with the complexity of their credit activities. The application of these strategies should also happen in line with sound acts linked to the adequacy of reserves and provisions, credit risk disclosure, and asset quality assessment (Young, 2012).

1.1.2 Financial Performance

Financial performance is considered the main goal of the firm. A firm needs to perform to survive in the future (Draca, Machin & Van Reenen, 2011). Hence, it is prudent for a firm to analyse its performance so as to forecast the future. Delen, Kuzey and Uyar (2013) opine that a firm's efficiency on its use of resources is an essential indicator of financial performance. Delen, Kuzey and Uyar (2013) note that financial performance is the capability of the firm to generate profit from its operations. Financial performance is utilized in analyzing financial statements and firm performance. Other indicators entail; gross margin, total debt ratio and profit ratio. Managers employ fundamental concepts to conduct an analysis of the firm and predict its future when firm operations are managed efficiently. A firm's profitability is of important to any firm. Financial performance is an essential indicator that is applied to analyze financial ratios. Financial performance measures are essential to shareholders and managers of the firm since they are a sign of efficiency and performance of a firm.

Delen et al. (2013) indicate that financial performance evaluates the economic success of the firm in line with capital investment. Economic success might also be evaluated using the net profit a firm. Income and expense are also utilized to assess firm profitability. Expense is the cost that a firm incurs in its operations while income is the revenue that is derived from firm activities for example, selling products and services.

Draca et al. (2011) explain that various measures are applied to assess financial performance. However, this study will focus on Return on Assets (ROA) and Return on Equity (ROE). ROA evaluates profitability of the firm in relation to total assets, it depicts the level of efficiency of the top management in asset utilization to generate earnings. ROA is computed by dividing yearly earnings by total assets. ROE is a measure of profitability in relation to equity. It is got through dividing net income by equity from shareholders. ROA will be utilized to measure profitability in this particular study.

1.1.3 The Relationship Between Credit Management Strategies and Financial Performance

The source of credit risk is borrower's non-performance either through lack of ability (unwillingness) to pay as provided in the contract prior to commitment. This has an impact not only for the loans' holding lender but also other lenders to the creditor. As a result, the borrower's financial condition together with the existing value to a collateral is regarded to be of the lender's interest. Because this involves a deviation of portfolio performance from its targeted value, it leads to actual credit risks that financial institutions face. It is an uphill task to eliminate credit risk but there is the probability of diversification in that a fraction of any risk of default may emanate from systemic risk. Additionally, the idiosyncratic form of component of this loss is still a matter that affect creditors despite the advantageous that diversification plays in lowering uncertainties (Mercylynne & Omagwa, 2017).

Kalu, Shieler and Amu (2018) attribute the practice of managing credit risk as an imperative function of banks and other financial institutions in helping limit exposure to credit risks. Effective practices of credit risk management have been crucial in limiting bad debts together with non-performing loans occurrence.

Credit risk management, which comprise credit terms, credit risk control, credit appraisal, and collection policy has been established to be of major impact to loan performance in the banking industry. Treacy and Carey (2018) opine that in the modern business environment, credit risk management practices comprise a crucial part of risk management in order to limit rates of loan defaulters. Commercial banks loan portfolio performance is dependent on the effective effectiveness of planning, analyzing, and monitoring credit risk. Effective practices of credit risk management serve in determining bank's loan portfolio performance. There is a need for banks to limit the risk of loan default in that the financial viability of financial institutions is made weak by losing principal and interest, recovery cost, and the opportunity cost of management time used in recovery (Rehman, Muhammad, Sarwar & Raz, 2019)

1.1.4 Commercial Banks in Kenya

Kenya's banks make a huge contribution to the growth of the economy. The functions of banks include receiving deposits, issuing out loans, advise on investment and managing finances. Local banks offer employment opportunities and access to credit to big corporations as well as SMEs (CBK, 2020). Commercial banks are administered by Central Bank of Kenya (CBK), which is the regulator. The Finance Ministry in collaboration with other governing organs and the Government regulate CBK and set policies and programs to ensure banks operate in a level playing field that guarantees consumer protection. Commercial banks have undergone through numerous changes for example, financial reforms (liberalization) and globalizations that have proliferated adoption and use of novel technologies to improve efficiency, cut costs and improve the quality of services (Ongore & Kusa, 2013). Financial reforms of commercial banks started in 1995 and this saw the removal of exchange regulations.

CBK also oversees management of credit risk and liquidity and implementation of monetary policies while making that the financial system is effectively working. The bank industry constitutes of commercial banks, non-bank financial institutions, Microfinance banks and Forex Bureaus as controlled financial institutions. Currently, commercial banks are 42 in number that have been approved to operate and work within the boundaries of Kenya (Flamini, Schumacher & McDonald, 2009). Muiruri (2020) argues that an analysis from commercial banks reveal that an increasing sequence of bad loans provisions alongside non-performing loans. The asset quality of commercial banks is expected to remain volatile by 2021 since bank-loan restructuring will lapse in March. Implementation of IFRS-9 standard on January, 2018 transformed the way commercial banks make provision for credit losses through altering disclosure terms from a sustained loss to a probable credit loss framework.

Commercial banks have continued to be exposed to credit risks and the number of defaulted are unprecedented. For instance, in 2017 before the adoption of IFRS-9, the proportion of non-performing loans to gross loans rose from 9.91% in June to 10.44% in September. This was caused by hard economic times. A report from CBR show that rates of default hit 3.2 by April, 2020 due to covid-19 pandemic (Guguyu, 2020).

1.2 Research Problem

An effective credit risk management is the corner stone for a financially sound institution and continued sustainability, while poor credit risk management approaches lead to weakened financial stability. Weber (2012) argues that ease of credit standards exposes the firm to bad debts which may contribute to poor firm performance. Lending of loans is one of the core functions of commercial banks since it contributes significantly to the operating income.

Constant changes in the regulatory framework that govern banks, lack of autonomy and ineffective supervisory committee to execute central bank's inspection functions and lack of thorough government regulations have contributed significantly to an increase in non-performing loans. This in turn results to huge losses and poor financial performance (Treacy & Carey, 2018). The adoption and implementation of IFRS 9 was meant to ensure commercial banks account for future expected credit losses in order to determine financial instruments provisions, trade receivables and loan books. This change calls for forward-looking analytics to caution commercial banks from credit risks. The underlying objective of IFRS 9 is to increase provision in loan loss. Additionally, this provision has made banks more vigilant in assessing how credit and economic changes affect business models, provision levels, capital and portfolios in different circumstances (Nobes & Stadler, 2018).

Rehman, Sarwar and Raz (2019) tested the association between strategies to manage risk applied by Balochistan banks and the results showed that credit risk management was significantly linked to capital adequacy. Bagchi (2016) investigated credit risk management in South Africa and the results showed that effective credit risk; policies, rating system, framework, monitoring and control led to success in credit risk management. Treacy and Carey (2018) did a study on credit risk rating among American banks and the findings revealed that internal rating system for banks was effective in managing credit risk.

Karanja (2015) studied strategies of managing credit risk and Standard Chartered bank performance in Kenya and findings revealed that the bank employed effective credit process for issuing loans with proper credit risk control mechanisms. A study by Mureithi (2016), on effect of credit management approaches on financial performance of Kenya's commercial banks revealed a significant link amid credit management approaches and financial performance.

Research by Onang'o (2017) on credit risk management on financial performance of commercial banks found that there was no significant link between capital adequacy and financial performance. Also, loan loss provisions and default ratio were not associated.

Although studies have been performed in relation to management of credit and financial performance, global studies (Rehman et al., 2019; Bagchi, 2016; Treacy & Carey, 2018) have looked at credit management strategies single-handedly without relating it to financial performance. On the other hand, some studies have looked at credit management and financial performance in commercial banks and completely ignored the concept of strategies (Mureithi, 2016; Onang'o, 2017), another study by Karanja (2015) explored credit management strategies but limited itself to only one bank: Standard Chartered. Also, the study was qualitative while the current study is quantitative and is considering all Kenya's commercial banks. Therefore, this study sought to address the gap by addressing the question: What was the effect of credit risk management strategies on commercial banks' financial performance in Kenya?

1.3 Research Objective

To establish the effect of credit risk management strategies on financial performance of commercial banks in Kenya.

1.4 Value of the Study

Findings got from this research were applicable by the CBK in setting of policies that protect commercial banks from credit risks while ensuring that borrowers were not exploited by commercial banks. This provided a level playing field for commercial banks and borrowers to engage in fair and honest business where both parties gained.

Commercial banks learnt some of the effective strategies to manage credit and how their impact on commercial banks' financial performance. The banks also appreciated the importance of increasing loan loss provision and its contribution in shielding banks from credit risk exposure. The bankers understood how to measure financial performance and ways in which the bank might be exposed to losses due to poor management of credit risks.

Researchers and students might find this research to be of value. They widened their horizons of knowledge on theories and models that support credit risk management strategies and financial performance, their application and relevance to the study. Scholars with an interest in this field of study may utilize the findings obtained from this study as a basis for future investigation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Discussed in this chapter is the theories supporting the link between macroeconomic factors and firm profitability. The chapter further discussed several factors that affected commercial banks' profitability, empirical literature showing how credit strategies of management related to financial performance, conceptual framework and a summary of this chapter.

2.2 Theoretical Framework

In this section, the study discussed theories supporting the study namely: Information Asymmetry Theory, Credit Scoring Model and Agency Theory. The theories gave a conceptual discussion of the theoretical developments, assumptions, significance and application to the study.

2.2.1 Information Asymmetry Theory

According to Akerlof (1970) asymmetric information was put forth in 1970s and 1980s, it maintains that information imbalance between market players (buyers and sellers) can lead to inefficient results in the market. Ledyard (2008) indicates that information asymmetry involves a study of decisions on transactions where a party has either quality or more information than the other. Asymmetry leads to power imbalance in transactions; this might distort the transactions or cause market failure in worst cases. Examples of problems associated with transactions power imbalance include knowledge monopoly, moral hazard and adverse selection.

Information asymmetry transcends to non-economic behaviours. Stiglitz (1975) contends that information asymmetry models maintain the assumption that at least a party to a transaction has

access to appropriate information while the other part has no access. Some of the proponents of this theory include Akerlof, Spence and Stiglitz (1961); who jointly shared the economics Nobel Prize in 200. Akerlof (1970) compared information asymmetry with market for lemons; whereby he pointed out uncertainty and market mechanism. Spence (1973) in his models argues that hiring employees is an uncertain investment for firms; this is because the employer is not sure whether the employees have the capacity to perform and contribute positively to the productivity of the organisation. He compares this kind of a situation with lottery. He identified information asymmetry that exists between firm owners and employees, citing cases where jobs that pay low develop an obstinate equilibrium trap which puts off wage bidding in some markets.

The two basic solutions to the problem of information asymmetry include signaling and screening. The concept of signaling and its effectiveness in dealing with the problem of information asymmetry. Stiglitz (1961) put forth the theory of screening. It maintains that the party that is not informed can easily influence the other (party) to disclose information. This is done through providing a variety of choices in a way that the choice depends on the information that an individual has over the other party. An example is when the seller possesses more information compared to the buyer but opts to hire sales people, mortgage brokers, stock brokers among others.

The relevance of this theory to this study is that it tries to explain an imbalance of information between the firm (banks) and the customer (Akerlof, 1970). These imbalances may affect credit management. For instance, a borrower might borrow a loan or get a service without the knowledge of the bank. Unemployed debtor might pay loan at a similar rate of interest just like a debtor who is gainfully employed. This could expose the bank to default rate risk and impact negatively on its financial performance.

An example of an adverse selection is when individuals who are credit unworthy borrow loan since the bank is not able to discriminate against them; this might happen due to failure to have information about the borrower's risk and thus expose the bank to default risks. Thus, this might impact negatively on bank performance.

2.2.2 Credit Scoring Model

According to Thomas et al. (2002) defined Credit scoring as a set of decision models and methods that assist lenders to issue credit to customers. The methods determine customers who are credit worthy, amount of credit they qualify, and the operational strategies that will boost borrower's profitability towards the lenders. A creditor can generate revenues upon successful prediction of default risk and creditworthiness of applicants based on default factors of prediction. Credit scoring is an effective method that links the factors to default probability (Lieli & White, 2010). Credit scoring is aimed at classifying different groups when the lender is not able to factor in all the traits that describes the groups but only describes those who are closely associated. Fisher (1936) as cited in the works of Thomas et al. (2002) sought to address this problem through identifying unique classes in a given population. It was agreed that bad and good creditors could be categorized using one method as illustrated by Durand (1941).

Kanwar (2005) defines credit risk as the risk that is brought about when a borrower is not willing or reluctant to refund the loan or is incapacitated to repay the loan issued which exposes the bank to economic losses. Credit scoring model utilizes information on consumer behaviour through data mining. A lender should consider two important decisions during the process of credit approval: issue a loan to a new borrower, the method that is applied to make that decision is credit scoring, the other one is whether to expand the limits of credit of current debtors, the methods that assist to make the second decision are known as behavioral scoring. In established

countries lenders analyze a borrower's creditworthiness-based credit history, this information is obtained from credit bureau as well as checking their salary and experience prior approval of the loan. Credit scoring model was first used by lending institutions to evaluate individual loans, then the model was used to evaluate mortgage and small businesses in 1980, after the model was found to be accurate and effective, it was utilized to evaluate credit cards. Some of the notable traits of the applicants that are analyzed by the credit scoring model include age, income, payment history and marital status to classify new applicants as credit worthy or not (Chen & Huang, 2003).

2.2.3 Agency Theory

Meckling and Jensen (1952) proposed this theory, where the theory intends to explain organization behavior by focusing on the relationship the executive director or the manager, who serves as the agent of the company and the stakeholders, who assume the principal's role. The theory further delves on the manner employees within an organization conduct themselves. According to Eisenhardt (1989), the theory is based on the notion that players in any company have the logic of maximizing utility with a primary intention of realizing what is in their best interests even if it may differ with the best interest of the firm. In respect to cooperation within an organization, agency theory puts emphasis on the emerging conflict between goals of varied individuals who, while working for these companies prioritize their interests as opposed to those of the firm (Barnard, 1938). This behavior is however associated with leading to complexities to the clichés found in organization. This theory is further subjected to criticism by Barnard (1938) by attributing it to be centered on self-interest as well as opportunistic personal behaviors while at the same time failing completely to take into account human motives.

This theory is relevant because it envisions a situation where an organization hires an executive director with an intention that they will act in the shareholders' best interest (Jensen & Meckling, 1976). However, this may not always be the case due to agency problems, commonly referred to as conflict of interests. As a result, large and stable organizations may end up allocating significant costs of agency like commitment and monitoring costs in ensuring that managers' actions are in shareholders' best interest and in winning their trust for instance by making sure that firms that access credit are credit worthy and meet credit standards. However, such measure might be too expensive and equally inefficient. Smaller firms cannot afford such costs as it might consume on their operational costs and consequently impact negatively on their performance. Large firms opt to link compensation to performance. This is aimed at making the managers to feel obligated to work harder and enhance firm performance. Smaller firms might threaten the managers of takeovers by larger firms in a bid to push them to work harder and achieve better performance.

2.3 Credit Risk Management Strategies

The various strategies that bank used to manage their credit facilities. The study discussed the following credit risk management strategies as follows:

2.3.1. Credit Appraisal

According to Kirui and Kalio (2014), appraisal and analysis of credit involves making sure the client has both ability and willingness of repaying a loan timely. While limiting credit risk, the first measure involves client's screening to ascertain ability and willingness of repaying. Lending facilities rely on the 5Cs model of credit in evaluating the potential of a client as a borrower (Abedi, 2013).

The model helps lending facilities to increase loan performance based on knowledge about their clients. These comprise character, collateral, capacity, condition, and capital. The new IFRS 9 accounting standards has fronted a new model. This model is used by financial institutions while making appraisals referred to as the Internal Rating Based (IRB) models. At the onset of calculating output from its IRB models, banks may calculate probability of default (PDs) based on IFRS 9. However, the same may be calculated using the cycle (TTC). As such, appropriate adjustments of the PDs are done if they are to be used for the purposes of IFRS 9.

2.3.2 Credit Terms

Risk monitoring serves in enabling financial lenders discover mistakes early. According to Pausenberger and Nassauer (2014) monitoring comes as the last in the process of corporate risk management. It is possible for financial institutions shareholders to request for information so as to evaluate the risk management system (Parrenas, 2015). It is through the use of the director's report that shareholders are capable of assessing the status of an institution thoroughly and knowledgeably. Majority of credit unions make specific distinction between their balance sheet rate exposure and trading activities. Based on the IFRS 9 model's provisions, monitoring happens between stages and sheds light into credit risk. Provision coverage disclosure across stages serves in enhancing comparability across companies. While Expected credit loss (ECL) is being monitored, a crucial judgment is ascertaining the probability of major increase in credit risk (SICR). This happens because initial recognition leads to moving the instrument from 'stage 1' to 'stage 2'. This is an important judgment because by shifting the stages leads to an increase in the ECL provision for losses of expected credit that emanate from default events probable in the next 1 year to expected credit losses provision for lifetime (Silvia & Mazzu, 2018).

2.3.3 Credit Risk Control

According to Baud and Chiapello (2017), risk mitigation or control refers to systems and procedures known and used to limit and exhibit the presence of credit risk linked with loan exposures. With risk control in place, protection is given to an exposure. Various approaches can be employed to limit credit risks which involve: diversification, risk pricing, managing the loss given default, and monitoring and covenants (Kassower, 2017). The loss given default (LGD) can be managed using collateral and collateralization. It can also be managed using credit guarantee. Diversification involves spreading risks. On the other hand, a covenant is characterized by imposing a restriction on the borrower based on terms of borrowing (Ngwa, 2010). Risk pricing involves basing the required return changes on the perceived risks.

According to Silvia and Mazzu (2018), based on IFRS 9 together with ECL calculations, credit control involves gaining insight in the measurement uncertainty in ECL allowances that emanate from crucial judgments and estimates and the sensitivity of estimates of ECL to those judgments to help in limiting credit volatility.

2.3.4 Credit Policy Allocation

It entails the procedures applied by financial lenders to collect due accounts. According to Ahmed and Malik (2015), it is probable for the collection process to be expensive in respect to product expenditure together with lost good will. Major collection efforts may comprise of forcing payments from guarantors, attaching mandatory savings, and court litigation. Commercial banks tend to rely on demand letters, face-to-face reminders, and telephone calls (Gatuhu, 2013). The rationale for having a collection policy is that not all customers meet their obligations. For some, they may forget, others pay only after persuasion, and others just take it for granted.

As Ojeka (2011) notes, collection procedure is needed because some customers do not make timely payments. Therefore, the presence of collection policy is to accelerate collections from slower borrowers to limit bad debts. However, there is a need to be cautious with the policy as stringent measures may force clients shift to competitors.

2.4 Determinants of Financial Performance

Financial performance of the firm is affected by numerous factors. However; this research will delve into the following factors namely bank size and default rate.

2.4.1 Bank Size

Firm size impacts on bank profits. Larger banks are much stable compared to smaller banks since they have huge asset base, such banks take risks and make huge investments. Larger banks have capacity to huge deposits and better control of deposit costs as well as lending rate. These advantages contribute to improved financial performance and cost efficiency. Many large banks invest in sophisticated technologies and innovations and this helps them to minimize cost and increase efficiency in their operations, in turn this contributes positively towards economic growth (Rajkumar, 2014). Large banks also enjoy economies of scale through discounts from suppliers and use of average costs through standardization of processes and procedures. Large banks have a large asset value and are in a better position to provide a wide range of services to their customers thus increasing their revenue streams compared to banks with few assets. Many large banks have a wide network of branches that provide convenience to customers giving them easy access to bank services resulting to an increase in financial performance.

2.4.2 Default Risk

Default rate is defined as the proportion of all unpaid loans which a lender has written off as not paid after a long period of non-payment. The term default rate is also known as penalty rate or a high interest rate that is forced to a borrower who fails to service a loan regularly. The borrower has an obligation to service the loan in accordance with the initiation agreement with the lending institution. Whether the agreement was reached via payment of a mortgage or credit card, on which the borrower fails to remit the payments (Daouia et al. 2017). For a consumer loan to be regarded as defaulted, several consecutive payments have to be forfeited for some months. Loan defaulting damages the credit scores of the borrower and this makes it hard for him or her to get future loan approvals. Even when a loan is to be approved in future, the poor credit scores might lead to higher interest rates on loan. Prior to being regarded as a defaulted loan, a loan whose payments are missing is a delinquent loan. When the loan is delinquent, the lender gives some time to the borrower before officially declaring the defaulted loan. This period the borrower is expected to make up for all the missed payments so as to evade the implications of a defaulted loan (Acha & Acha, 2011).

2.5 Empirical Review

Mureithi (2016) tested the link between credit management techniques and financial performance of commercial banks. A descriptive kind of a design was utilized in a population of 43 commercial banks. Census was utilized as the population was small. Primary information was collected with the help of questionnaires while secondary information was obtained from annual reports. Descriptive together with inferential statistics were employed for analysis and the outcomes revealed that credit management techniques were significantly linked to commercial banks' financial performance.

Kagoyire and Shukla (2016) studied the impact of credit management on commercial banks' performance in Rwanda. A descriptive survey was utilized in a population comprising of 57 staff from Credit department of Equity bank. A purposeful method of sampling was utilized to sample the whole population. Primary information was gathered using questionnaires administered by the researcher. Descriptive together with inferential statistics were used for analysis. The results discovered that credit risk control, customer appraisal and credit collection policies were significantly linked to financial performance. Onang'o (2017) delved the effect of credit risk management on commercial banks' financial performance, a longitudinal study was employed and a purposive sample involving 10 banks. Secondary information was derived from annual reports and CMA.

Analysis was done using generalized least squares form of regression using e-views. Results showed no major links between capital adequacy and performance of banks. Further, there was no major link between loan loss provision and default ration with bank stock performance. And an inverse link between non-performing loans stock performance of a bank. Mercylynne and Omagwa (2017) studied the credit risk management and financial performance of a few selected local commercial banks. A descriptive study design was employed and probabilistic approach to sample the population. A sample size consisting of 42 respondents from 5 banks was done. Information was collected through the use of questionnaires and analysis conducted using both descriptive statistics and regression analysis. Outcomes revealed that the process of debt recovery was insignificantly linked to bank performance, the process of loan appraisal, lending prerequisites and policies were significantly linked to bank performance.

The study made a recommendation that there was need for commercial banks to put in place stringent measures when executing loan appraisal processes to make sure that credit officers stick to lending requirements provided. Yangwang and Jane (2013) did an examination on the effectiveness of CRM on China's commercial banks, a CRM framework was developed and it considered both financial and non-financial factors as predictors of bank failure and credit quality. They disclosed that credit risk factors worked as predictors of bank failure and credit quality. Banks do business in diverse environment and might get opposed to risks that calls for a unique CRM approach to factor in risk. Even though the study explored the usefulness of CRM system it did not take into account IFRS 9 in its model with recent reporting standards. This is what this study seeks to investigate. Bagchi (2016) studied credit risk management in South African banks. The study assessed risk; identification, measurement, monitoring, control and audit as key credit risk management considerations. It was found that appropriate credit risk; policies, framework, architecture, rating system, monitoring and control contributed towards credit risk management success. However, this study failed to incorporate IFRS 9 in its credit risk management.

Treacy and Carey (2018) explored the mechanism of credit risk rating among banks in U.S. The study explored the bank's internal rating architecture system as well as its operating design of rating and a comparison was done involving the bank system relative to the rating agency system. Research concluded that banks internal system of rating was useful in credit risk management, product pricing and profit analysis. The study did not however factor in credit control and monitoring in the context of IFRS 9. Kalu, Shieler and Amu, (2018) explored the impact of managing credit risk on financial performance of Uganda's Microfinance Institutions.

Relying on a sample population of 60 employees in Credit and Finance departments of three licensed Microfinance organizations in Kampala. Primary form of data was gathered using questionnaires. Secondary information was obtained from annual reports spanning for 5 years (2011-2015). A sample comprising of 60 employees was used where analysis was conducted using descriptive statistics and correlation, findings depicted that credit risk identification and appraisal were strongly related to financial performance while credit risk mitigation and monitoring were positively and significantly linked to financial performance.

Rehman, Muhammad, Sarwar and Raz (2019) examined risk management strategies employed by Balochistan commercial banks to reduce credit risk. An explanatory study was employed to explore staff views from selected commercial banks regarding useful strategies to mitigate credit risk. Quantitative type of data was gathered from 250 staff of commercial banks and analysis was done using a multiple regression. Results established that that credit risk management, diversification and corporate governance significantly influenced hedging and capital adequacy. Karanja (2015) did a study on strategies of credit risk management and performance at Standard Chartered bank in Kenya, a case study design was utilized and five heads of departments were interviewed. Raw information was gathered with the help of a guide for interview, and analysis was conducted using interview guides, findings indicated that the bank adopted a sound credit risk setting that operated through a sound credit granting process where adequate credit risk controls were put in place. Findings further established that risk approval processes and assessment approaches were utilized by the bank.

2.6 Conceptual Framework

Research hypothesis was credit risk strategies (credit appraisal, credit monitoring, credit control and credit policy), control variables (liquidity, bank size and default risk) which was assumed to impact on financial performance.

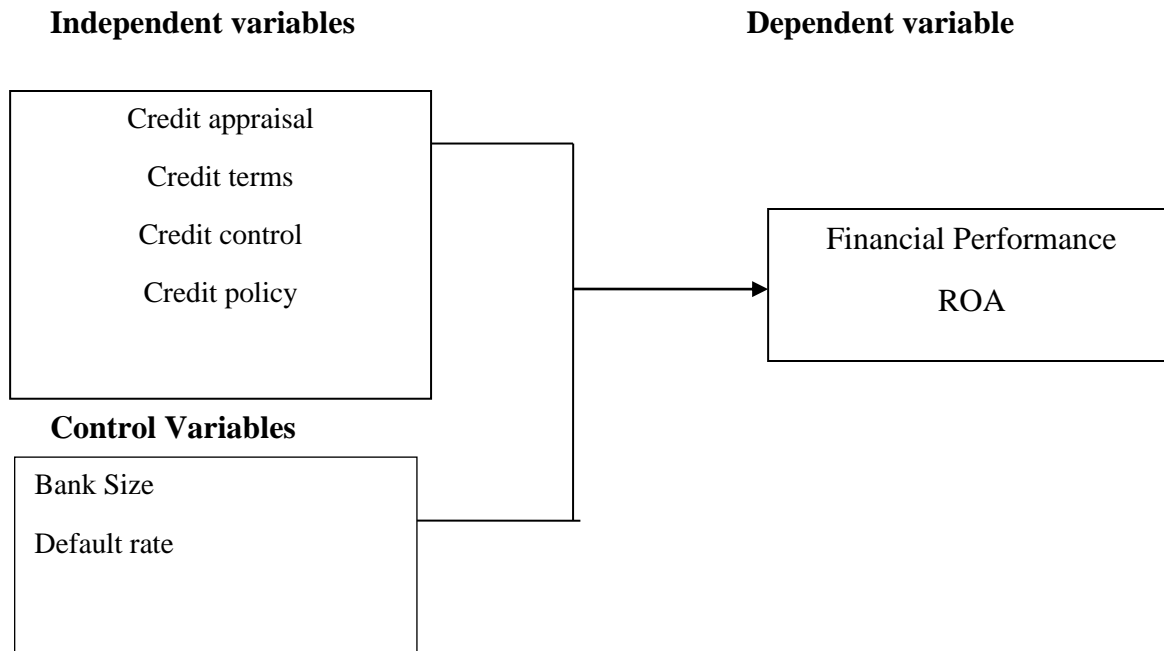


Figure 2.1: Conceptual framework

2.6 Summary of the Literature Review

The study found that credit risk management strategies affected a bank's financial performance. A bank that aspires to be profitable must lower its credit risks through effective strategies of credit risk management by striking a balance between borrower's protection and firm profitability. The borrowers must be protected and the firm should ensure that its primary goal of making profits is realized. This argument has also gotten support by the study theories.

Under this chapter still, the researcher discusses financial performance determinants and their relationship with the study objective. Empirical works constitutes international evidence (Bagchi, 2016; Treacy & Carey, 2018) as well as local evidence (Karanja, 2015; Mureithi, 2016; Onang'o, 2017), some studies have restricted themselves to credit risk management strategies and completely ignored how it relates with financial performance, other studies have used qualitative approaches involving case study research design while this study will use both quantitative and qualitative types of researches. Also, the studies depicted a mixer of results between credit risk management strategies and financial performance; some reveal significant relationships, others no relationships at all while a few others insignificant relationships. Hence, the basis for investigating the effect of strategies to manage credit risk and its effect on commercial banks' performance in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this section, the study discusses the methodology that enabled the researcher to accomplish the objective for this study. It consisted of the study design, population, sample design, collection of data, analysis, variables measurement and significance tests.

3.2 Research Design

The study employed a descriptive research design. This type of design is a holistic strategy that was applied by a researcher to align several elements in a study in a way that is reliable and logical by making sure that the questions of research are dealt with. This type of design was used to determine the nature of existing and current conditions (Saunders, Lewis & Thornhill, 2016). The choice of this design was because it is appropriate in determining the nexus between credit management strategies and financial performance commercial banks.

3.3 Target Population

Population entails full set of aspects from which sample selection happens (Saunders, Lewis, & Thornhill, 2016). According to CBK (2020), there are 42 commercial banks licensed to operate within the Kenyan boundaries as presented in Appendix II. However, two of these banks; Chase Bank Kenya and Imperial Bank Kenya are currently on receivership, the study conducted do a census of the remaining 40 banks hence sampling was non-essential.

3.4 Data Collection

Kothari (2006) explains that there are two major data sources utilized by researchers namely; primary and published information. Primary data was collected using closed-ended questionnaires while secondary information will be derived from yearly reports of CBK. The researcher also conducted a cross-sectional study on variables that were utilized to measure credit management strategies of Kenyan commercial banks.

The respondents for this research included credit managers, finance managers and operations managers for each bank. One questionnaire was employed for data collection. Category of the respondents that were chosen namely; credit managers, finance managers and branch managers as respondents including the branch managers of the sampled commercial banks; the choice of this respondents category was because they make key decisions on commercial banks credit management as well as financial performance. Administration of questionnaires was done by dropping them then agreeing with the respondent on the picking time.

3.6 Data Analysis

Descriptive statistics was used in the analysis of data collected that included mean, and frequencies together with standard deviation. Descriptive statistics were used in determining commonly applied credit management strategies and the extent of implementation by commercial banks. A model of regression was utilized to analyze data and establish the link between strategies of managing credit and also financial performance among Kenyan commercial banks. The regression model was as follows:

3.6.1 Analytical Model

A multiple model of regression was employed to establish the impact of credit risk management strategies on commercial banks' financial performance in Kenya. Commercial banks' financial performance was the responsive variable (dependent) while predictor variables will be Credit Risk Management strategies as presented:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \varepsilon$$

Whereby;

Y = Financial performance

α = constant term

$\beta_1 - \beta_7$ = are constants that measure sensitivity of variable X to change in financial performance

X_1 = Credit appraisal

X_2 = Credit terms and conditions

X_3 = Credit risk control

X_4 = Credit collection policy

X_5 = Adoption of IFRS 9

X_6 = Bank Size

X_7 = Default rate

ε = Error term

3.7 Significance Tests

The significance of the study parameters was observed at 95% level of confidence whereby 'p' value of 5% and below was considered significant and those whose probability value exceeded 5% were considered insignificant. This research executed two tests: F and T tests. F test took into consideration the value of F and its critical value.

F's critical value was considered as F statistics. When the value of F statistics (computed) was greater than the F-value in the Table, the researcher was opposed to the null hypothesis. Moreover, P-value was ascertained through F statistics, which revealed that the output was out of probability. T tests were executed to ascertain whether the coefficients of regression were significant in any given point in time.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This section delves on the outcome of analyzed data and a comprehensive discussion of study outcomes. It entails descriptive statistics depicting the patterns and trend on credit risk management strategies and financial performance of Kenya's commercial banks. Further, in an effort to establish the link between credit management strategies variables and performance, the researcher adopted inferential statistics: regression analysis and correlation.

4.2 Response Rate

Out of 40 questionnaires that had been issued to the research participants of commercial banks, 38 were filled and taken back safely to the researcher, which represents a rate of response of 90.48% which was deemed by the researcher as sufficient to generalize the whole population. In support of this, is Sekaran (2008), who asserted that a response rate exceeding 50% from a sample is satisfactory to generalize an entire population.

4.3 Descriptive Statistics

Descriptive statistic comprises of a statistical summary that describes quantitatively characteristics from data. Descriptive statistics is a process of analyzing and applying the statistics obtained. Some of the common measures utilized to measure statistics include mean, frequency, standard deviation, minimum and maximum values and skewness.

4.3.1 Gender

The research participants were asked to reveal their gender. The results are provided in Table 4.1:

Table 4.1: Gender

Gender	Frequency	Percentage
Male	24	63.16%
Female	14	36.84%
TOTAL	38	100

The outcomes depict that majority (63.16%) of the participants were male and the rest (36.84%) were female. This revealed that males were the majority respondents.

4.3.2 Length of Service in the Organisation

The participants were requested to reveal the duration that they had been in the organisation. The results are illustrated in Table 4.2:

Table 4.2: Length of Service

Length of Service	Frequency	Percent
Below 5 years	5	13.16%
5-10 years	18	47.37%
10-15 years	12	31.58%
Above 15 years	3	7.89%
	38	100

The results established that 47.37% of the respondents had served between 5-10 years, 31.58% of the respondents had served between 10-15 years, 13.16% respondents had served below 5

years and only, 7.89% respondents had served above 15 years. These imply that the respondents had relevant experience in banking.

4.3.3 Respondent’s Department

The participants were requested to reveal their department. The outcomes are given in Table 4.3:

Table 4.3: Department

Length of Service	Frequency	Percent
Credit	16	42.11%
Finance/Accounts	12	31.58%
Operations	10	26.31%
1	38	100

Results demonstrated that 42.11% of the respondents were heads of credit, 31.58% of the respondents were heads of finance/accounts and 26.31% were heads of operations. This is an indication that majority of respondents in all the three departments: credit, finance and operations, took part; implying that the research findings are rich, accurate and reliable.

4.3.4 Educational Level

The study participants were requested to reveal their education level. The results are illustrated in Table 4.4:

Table 4.4: Education Level

Length of Service	Frequency	Percent
Diploma	1	2.63%
Undergraduate	26	68.42%
Post graduate	11	28.95%
	38	100

The results depict that majority (68.42%) of the respondents had first degree, 28.95% of the respondents were master's graduates while only 2.63% were diploma holders. This revealed that a significant proportion of the respondents were holders of first degree.

Table 4.5: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Performance	38	1.00	5.00	3.42	0.87
Credit appraisal	38	3.00	5.00	4.21	0.67
Credit terms	38	2.00	5.00	3.98	0.72
Credit risk control	38	2.00	5.00	3.91	0.84
Credit collection policy	38	1.00	5.00	3.57	1.04
Adoption of IFRS 9	38	1.00	5.00	3.53	0.97
Bank size	38	10.43	11.88	11.19	0.46
Default rate	38	1.06	1.64	1.35	1.56

The mean performance of banks was 3.42 and standard deviation of 0.87, the minimum value was 1 and maximum value was 5. Bank performance may have been attributed to effective use of credit policies by banks. Credit appraisal attained a mean of 4.21 and standard deviation of 0.67. Its maximum value was 5.00 and a minimum value of -3.00, the increase in use of credit appraisal by banks was largely attributed by its effectiveness in reduction of credit risk. Credit terms recorded a mean of 3.98 with a standard deviation of 0.72. Its minimum value was 2.00 and maximum value 5.00. The increase in the implementation of credit terms by banks was because of the need for clarity on credit terms when engaging borrowers.

Credit risk control recorded a maximum value of 2 and a minimum value of 5 with a mean of 3.91 and standard deviation of 0.84. Credit collection policy attained a mean of 3.57 with a high of 5.00 and a low of 1.00, the standard deviation was 0.67. This increase trend shows the need for banks to control and minimize default risks.

IFRS adoption attained a mean of 3.53 with a standard deviation of 0.97. An increase in its uptake was recorded from 1.00 to 5.00; implying that many banks complied with IFRS. Total assets recorded a mean of 11.19 with a standard deviation of 0.46. Assets attained a minimum value of 10.43 and maximum value of 11.88. The slight growth in assets might have been as a result of increase in profits derived from interest income from loans. Default risks a mean of 1.35 and a standard deviation of 1.56, with a maximum value of 164 and a minimum value of 1.06. This demonstrates an increase in non-performing loans among banks due to default by borrowers.

4.4 Diagnostic Tests

These tests are done to ascertain whether the data set is normally distributed and to determine the possibility of a random variable underlying the data to a normal distribution curve. The outcome is illustrated in Table 4.2:

Table 4.6: Normality Tests

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Performance	.193	38	.138	.914	38	.107
Credit appraisal	.332	38	.086	.628	38	.078
Credit terms	.317	38	.076	.761	38	.089
Credit risk control	.252	38	.082	.784	38	.094
Credit collection policy	.219	38	.107	.813	38	.064
IFRS 9	.164	38	.162	.938	38	.204
Bank size	.211	38	.202	.834	38	.089
Default risk	.116	38	.112	.543	38	.177

The outcome show that the variables adopt a normal distribution curve because their levels of significance (p-values) is more than 5% (0.107, 0.078, 0.089, 0.094, 0.064, 0.204, 0.089 & 0.177, respectively).

4.5 Pearson Product-Moment Correlation Coefficient

Correlation analysis was done to test the strength of the connection between variables in the study. The strength is explained with the help of a Pearson correlation scale where values between 0.0 to 0.3 show no correlation, 0.31-0.5 (weak correlation), 0.51-0.7 (moderate correlation) and 0.71-1.0 (strong correlation). The outcomes are provided in Table 4.3:

Table 4.7: Correlation Analysis

	Performance	Credit Appraisal	Credit terms	Credit risk control	Credit collection policy	IFRS 9	Bank size	Default risk
Performance	1							
Credit Appraisal	.772**	1						
Credit Terms	.726**	.403	1					
Credit risk control	.621**	.795**	.405	1				
Credit collection Policy	.548*	.124	.254	.110	1			
IFRS 9	.352	.547*	.678**	-.315	.572*	1		
Bank Size	.160	.003	-.118	.028	.064	-.159	1	
Default risk	-0.54	-.001	-.213	.039	0.76	0.123		1

The results show a strong correlation between credit appraisal, credit terms and credit risk with performance (R=0.772, R=0.726 & 0.621, respectively). A moderately strong correlation was found between credit policy and performance (R=0.548) and weak correlation was found between IFRS 9 and performance (R=0.352). No correlation was found between bank size, default risk and bank performance (0.160 & -0.54, respectively).

4.6 Regression Analysis

A model of regression was adopted to establish the link between macro-economic factors and bank profitability. The outcome is provided as follows:

Table 4.8 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.679 ^a	.488	.365	.079

The outcome show that the coefficient of determination is 0.488 which is a revelation that the independent variables were able to explain 48.8% of variation in bank performance in Kenya. Adjusted R² is 0.365, implying that the percent of variation as explained by credit management strategies that has an effect on bank performance is 36.5%.

Table 4.9: Analysis of Variance

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.553	7	2.222	1.771	.000 ^b
	Residual	23.421	30	0.7474		
	Total	40.099	37			

The regression equation employed by the researcher was significant as evidenced by ANOVA which was 0.000 (less than 5%)

Table 4.10 Coefficients

Coefficients ^a					
Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	3.474	1.757		2.665	0.050
Credit appraisal	0.015	0.019	.398	3.989	0.000
1 Credit terms	0.016	0.045	.411	3.991	0.000
Credit control	0.002	0.019	.010	2.898	0.011
Credit policy	0.079	0.018	.291	2.752	0.030
IFRS 9	0.012	0.064	.150	1.957	0.091
Banks size	-0.056	0.067	.129	-0.721	0.443
Default risk	-0.043	0.053	.121	-0.056	0.932

The consequent regression equation is as follows:

$$\text{Performance} = 3.474 + 0.015X_1 + 0.016X_2 + 0.002X_3 + 0.079X_4 + 0.012X_5 - 0.056X_6 - 0.043X_7 + \varepsilon$$

Credit appraisal, credit terms, credit control, credit policy and IFRS 9 were positively associated with bank performance (0.015, 0.016, 0.002, 0.079 & 0.012, respectively), which implies that a unit increase in each of these variables leads to a corresponding unit increase in bank performance. Conversely, bank size and default risk were linked negatively to bank performance (-0.056 & -0.043). Credit appraisal, credit terms, credit control and credit policy were significantly linked to performance as their p-values were less than 5% (0.000, 0.000, 0.011 & 0.030, respectively). However, IFRS 9, bank size and default risk were insignificantly linked to performance as their p-values were bigger than 5% (0.091, 0.443 & 0.932, respectively).

4.7 Interpretation of Findings

With a 3.42 average and a variance of 0.87, the banks' performance ranged from a minimum of 1 to a high value of 5. Credit terms may have had a role in the success of banks. The credit evaluation had an average of 4.21 and a deviation of 0.67. A maximum score of 5.00 and the lowest possible score of negative -3.00, credit evaluation has increased in usage by banks due to its efficacy in reducing credit risk. There was a mean of 3.98 and a standard deviation of 0.72 for credit terms. Its lowest score was 2.00 and its highest value was 5.00. Increasingly, banks are implementing credit conditions because they want to be clear with borrowers about what they're signing up for. There was a high of 2 and a low of 5, with an average of 3.91 and a variance of 0.84, in credit risk control. Overall, the standard deviation for the credit collection program was 0.67 points, with the mean being 3.57 points. In light of this upward tendency, it's clear that banks must keep a tight rein on and limit default risks. (Reham et al., 2019).

According to Mercylynne & Omagwa (2017) there was a mean of 3.53, with a standard deviation of 0.97 after adopting IFSR. The adoption rose from 1.00 to 5.00, showing that many institutions were complying with the standards. There was a mean of \$11.19, with a standard deviation of \$0.46, for all assets combined. Assets reached a minimal level of 10.43 and highest value of 11.88. The minor expansion in assets may have occurred as a consequence of increase in profits received from interest revenue from loans. Default has a standard deviation of 1.56, a mean of 1.35, and a maximum value of 164. Its lowest value is 1.06. As a result of borrowers defaulting on their loans, banks have seen a rise in non-performing loans (Karanja, 2015).

The findings reveal a substantial connection between credit evaluation, lending conditions, and performance risk. Credit policy and effectiveness were shown to have a reasonably good correlation. In addition, the connection between IFRS 9 and performance was shown to be minimal. Default risk and performances were determined to have no association with a bank's size (Yangwang & Jane, 2013). The results indicate there is a 0.488 coefficient of determination, which suggests that the control variables explained 48.8% of the variance in bank performance in Kenya. According to the overall model level of significance of 0.000, which is less than 5%, the regression equation applied by the researcher was significant (Treacey & Carey, 2018). There was a favorable correlation between bank performance and credit assessment, credit conditions, credit policy, credit control, and IFRS 9. Bank size and default risk, on the other hand, were shown to have a negative impact on bank performance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The sections provides a discussion of research outcomes, conclusion, recommendation, and limitations together further study areas. This was done while observing the objective that guided this research that was establishing the impact of credit risk management strategies on Kenyan commercial banks financial performance.

5.2 Summary of Findings

As pointed out by the respondents', commercial banks' average performance was 3.42, implying that it was moderate. This performance might have been as a result of successful implementation of credit management strategies by banks. Credit appraisal recorded a mean of 4.21 as per the respondents; which means that this strategy of managing credit was vastly employed by commercial banks. The increasing use of this strategy by commercial banks was because of a significant reduction of credit risks. In view of this, credit appraisal as avowed by Treacy and Carey (2018), was to a great extent utilized by commercial banks in determining borrowers who were credit worth.

Credit terms by commercial banks had a mean of 3.98; implying that this credit management strategy was utilized by commercial banks to a large extent in order to ascertain whether the borrowers were worthy of credit or not. Feedback from the respondents established that credit collection policy had a mean of 3.57; which means that that credit strategy was utilized vastly by commercial banks so as to mitigate default risk as pointed out by Mercylynne and Omagwa (2017).

Respondents opined that use of IFRS 9 by commercial banks attained a mean of 3.53; meaning that this practice was utilized to a large extent. Total assets attained a mean of 11.19; with a high of 10.43 and a low of 11.88. Increase in total assets may have been as a result of increased profits from interest income generated from issued loans. Default risk had a mean of 1.35; the risk rose from 1.06 to 1.64; implying that commercial banks recorded high amounts of non-performing loans during the study period.

Credit terms, credit risk, credit appraisal and bank performance were strongly correlated. In support this view is Rehman *et al.* (2019), who unearthed that credit risk strategies were strongly correlated to ROA. Credit policy and performance were strongly and moderately correlated while IFRS 9 was weakly correlated to performance. Further, the researcher uncovered lack of a correlation between bank size and default risk with bank performance as reported by Karanja (2015).

R^2 was 0.488; inferring that the model of regression used was a reliable predictor. This view also conforms to Rehman *et al.* (2019), who ascertained that the model of regression applied was accurate in predicting. The entire model was significant (0.000; which was lower than 5%) as realized by Yangwang and Jane (2013). Appraisal, terms and control of credit was related positively to bank performance. In consonance to this is Rehman *et al.* (2019), who also realized a positive nexus between credit management and ROA. Besides, IFRS 9, total assets and risk of default were inversely linked to bank performance. Similarly, Karanja (2015) found a negative association between the rate of default, firm size and ROA.

5.3 Conclusion

The study outcomes established a significant link between credit appraisal, credit terms, credit control and credit policy and financial performance. Bank size, default risk and IFRS 9 were insignificantly linked to financial performance. Commercial banks were guided by credit policies guarantee that enabled loan recovery during defaults. Thus, most banks were able to generate interest income which impacted positively towards commercial banks' profitability. Further, results demonstrated that credit: terms, appraisal, control, policy as well as IFRS 9 were positively connected to banks financial performance while default rate was inversely associated to financial performance. Employee's incentives played an instrumental role in enhancing recovery of delinquent loans, punitive policies were effective in recovery of debt as compared to lenient policies. Frequent reviews were conducted on collection policies to boost the management of credit.

5.4 Recommendations

Credit risk control significantly affects the overall bank performance. Therefore, commercial banks should put in punitive measures that restrains borrowers to use covenants, collateral and credit insurance when borrowing money. This will eliminate chances of default and lower credit risk and impact greatly on bank performance.

When setting the credit terms, commercial banks should involve its credit officers and customers. This is because the credit officers get feedback from customers through their frequent interactions with them and the customers are the final consumers of these services. Hence, they are in a better position to give recommendations on the most appropriate terms.

Commercial banks ought to review and consider the rates of interests they charge their borrowers on loans, because they impact on the repayment of loans and overall performance of a bank. It is worthwhile to ensure that the interest rates issued by banks are not above the market rates so as to enable the borrower to repay the loan and attract prospective borrowers.

Another consideration that commercial banks should make is to engage a competent credit officer with a wealth of experience so as to waive unstainable and unbearable credit risks. Further, the calibre of the borrower, collateral and financial capacity are key indicators when conducting credit appraisal.

5.5 Limitations of the Study

Even though in any research it is not possible to avoid such kind of limitations, the researcher utilized secondary sources of information that include general-purpose reports that are historical and also easily manipulatable. This source of information might be inaccurate hence unreliable and therefore, impact adversely on the quality and reliability of outcomes.

The researcher adopted a descriptive type of research design in order to address the study question. The limitation associated with this design is its failure to be utilized to establish 'cause and effect' between variables. Though the researcher was able to draw the relationships that existed between variables, it was impossible to ascertain the cause together the effects between the variables hence the research fails to offer a clearer basis on how credit risk management strategies affect bank performance.

Another setback faced by the researcher was that some respondents were committed with busy work schedules thus they delegated the questionnaires for filling exercise to their juniors. This might have tampered with the quality of the findings as the information may not be accurate

and dependable since the assistants have limited experience and knowledge in credit management strategies since do not get involved directly in strategy setting and decision making.

The researcher did not have any control in data collection; some respondents filled-in the questionnaires half-way while others failed to make any deliberate attempt in filling the questionnaires. This happened even after the researcher assured the study participants that the study was purely for academic purposes through a letter that he had obtained from the university as proof that the data sought was for use academically.

5.6 Suggestions for Further Research

In future, scholars wishing to explore this field of credit management can do a replica of this study on Kenya's Microfinance banks; given that they embrace flexible lending policies compared to banks, it would be useful to ascertain whether the presented findings will be true. Then, a conclusion will be drawn on account of facts and evidence.

Scholars should execute a replica of this research outside Kenya, for example, in Uganda, whose credit policies are different from Kenya. Then do a comparative analysis which might provide insights into the "impact of credit management strategies on the profitability of commercial banks in comparable circumstances. As such, researchers may compare the results which will inform a reliable conclusion.

The environment where commercial banks and other institutions operate is uncertain with many risks due to numerous macro-economic factors for example, regulations, technology and customer needs. In future, like 20 years from now, it would be advisable for researchers to conduct a similar study and do a comparison of the findings after which a more plausible conclusion may be drawn.

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APPENDICES

Appendix I: Introduction Letter



UNIVERSITY OF NAIROBI

COLLEGE OF HUMANITIES & SOCIAL SCIENCES

FACULTY OF BUSINESS AND MANAGEMENT SCIENCES

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P.O. Box 30197
Nairobi, KENYA

10 November 2021

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

INTRODUCTORY LETTER FOR RESEARCH
JOHN KIMANI NJENGA – REGISTRATION NO. D61/5356/2017

This is to confirm that the above named is a bona fide student in the Master of Business Administration (MBA) degree program in this University. He is conducting research on *"The Effect of Credit Risk Management Strategies on Financial Performance of Commercial Banks in Kenya"*

The purpose of this letter is to kindly request you to assist and facilitate the student with necessary data which forms an integral part of the research project. The information and data required is needed for academic purposes only and will be treated in **Strict-Confidence**.

Your assistance will be highly appreciated.

Thank you.

A purple circular stamp from the University of Nairobi, Dean's Office, dated 10 NOV 2021. The stamp contains the text "UNIVERSITY OF NAIROBI", "DEAN'S OFFICE", "10 NOV 2021", and "30197-00100". A signature is written over the stamp.
PROF. JACKSON MAALU
DEAN, FACULTY OF BUSINESS AND MANAGEMENT SCIENCES

JM/fo

APPENDIX II RESEARCH QUESTIONNAIRE

SECTION A: GENERAL INFORMATION

1. Kindly indicate your gender.

a) Male []

b) Female []

2. Kindly tick the duration that you have served your bank.

a) Less than 5 years []

b) Between 5 to 10 years []

c) Between 10 to 15 years []

d) Above 15 years []

3. Please tick your department in the bank.

a) Credit []

b) Finance/Accounts []

c) Operations []

4. Please reveal the highest level of education you have attained so far.

1. Diploma

2. Undergraduate

3. Postgraduate

4. Other (Specify) _____.

SECTION B: CREDIT APPRAISAL AND FINANCIAL PERFORMANCE

5. Indicate the level at which credit appraisal impact on your bank's financial performance.

5. Very great extent.....[]

4. Great extent.....[]

3. Moderate extent.....[]

2. Little extent.....[]

1. No extent.....[]

6. Please the level you concur with the following statements regarding the bank’s credit appraisal

(Indicate your response against the statement appropriately).

Statement	1	2	3	4	5
The bank analysis business plan properly to detect any form of risk exposure					
Cash flow is estimated prior project financing					
Borrower’s potential is evaluated prior issuance of loans					
The bank considers long-term viability of the business					
The bank considers collateral as a secondary repayment source					

SECTION C: CREDIT TERMS AND FINANCIAL PERFORMANCE

7. Indicate the level to which credit terms influence your bank’s financial performance

5. Very great extent.....[]

4. Great extent.....[]

3. Moderate extent.....[]

2. Little extent.....[]

1. No extent.....[]

8. Through scoring on a five points (1-5) scale, indicate the level at which concur with the statements on credit terms below (Key: 1-to no extent, 2-to a little extent, 3- to a moderate extent, 4-to a large extent, 5-to a very large extent)

(Tick against each and every factor once)

Statement	1	2	3	4	5
The bank adopts a credit system of rating					
The bank credit standards are clear and objective					
The bank credit system and controls are strong					
The bank disclosure on credit is clear and adequate					
The bank's capacity to manage loan applicants is evaluated					

SECTION D: CREDIT RISK CONTROL AND FINANCIAL PERFORMANCE

9. To what level does credit risk control impact on financial performance of your bank?

5. Very great extent.....[]

4. Great extent.....[]

3. Moderate extent.....[]

2. Little extent.....[]

1. No extent.....[]

10. Indicate the level at which you are in agreement with the statements presented below regarding on the impact of credit risk control on your bank's financial performance? (Tick the responses against the statements correctly).

Statement	1	2	3	4	5
The bank conducts regular training on credit policy					
The bank's portfolio guide is clear					
The credit policies are clear and documented					
The bank has an efficient data management system					
The bank has adequate risk tools					

SECTION E: CREDIT COLLECTION POLICY AND FINANCIAL PERFORMANCE

11. Indicate the level to which credit collection policy influence your bank’s financial performance?

- 5.Very great extent.....[]
- 4.Great extent.....[]
- 3.Moderate extent.....[]
- 2.Little extent.....[]
- 1.No extent.....[]

12. Indicate the level you concur with the statements presented below with regards to credit collection policy on the banks’ financial performance (Mark the statements appropriately responses).

Statement	1	2	3	4	5
Debtors are reminded prior the day of repayment					
Debtors who default are followed up					
Debtors are issued a few days/weeks to pay when the repayment is due					
When debtors default retaining collateral is usually the last option					
The bank is clear on the collection process before issuance of loans to customers					

SECTION D: ADOPTION OF IFRS 9 EVALUATION AND FINANCIAL PERFORMANCE

13. Indicate the extent to which IFRS adoption by affect your bank’s financial performance (tick appropriately)

- 5.Very great extent.....[]
- 4.Great extent.....[]

3.Moderate extent.....[]

2.Little extent.....[]

1.No extent.....[]

14 .Comment on the level at which you concur with the statements regarding the adoption and implementation of IFRS 9 in your bank. (Mark the statements appropriately).

Statement	1	2	3	4	5
Use of IFRS 9 has minimized future credit losses which has enhanced profitability over the last 5 years					
Implementation of IFRS 9 has made your bank more vigilant on credit risks this has improved the bank's ROA over the last five years					
Adequate loan loss provision has enhanced the banks' liquidity for the last 5 years					
Increasing provision of loss for loans, the bank is more cautious on capital levels, its portfolio and business models and this has improved its sales					

Thank you for taking your time to fill the questionnaire