CREDIT MANAGEMENT TECHNIQUES AND LOANS PERFORMANCE OF COMMERCIAL BANKS IN KENYA

BY

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

Signature.. Date. 26 | November | 2023 ....

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The project has been submitted for presentation with my approval as university supervisor.

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DEDICATION

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ACCRONYMS AND ABBREVIATIONS

CB	Commercial Bank
CBK	Central Bank of Kenya
CMT	Credit Management Technique
CRM	Credit Risk Management
GCR	Green Credit Ratio
GMM	Generalized Methods of Moments
LP	Loan Performance
NNPA	Net Non-Performing Loans
NPL	Non-Performing Loans
SACCO	Savings and Credit Co-operative

ABSTRACT

Effective credit management strategies are of utmost significance across both micro and macro-operational scales. It is essential to acknowledge that the apportionment of credit may entail heightened costs for borrowers who fulfill their commitments, deplete accessible funds, and constrict a financial entity's adaptability in rerouting resources toward alternative pursuits. The principal aim of this inquiry is to establish the ramifications of credit management techniques on the loan performance of commercial banks operating within the Kenyan context. The choice of research design was carefully considered to ensure that it aligns with the research objectives and is capable of addressing the prevailing challenges. The use of descriptive research design is particularly beneficial for studies seeking to demonstrate the cause and effect of relationship among variables by providing a clear framework for analysis and interpretation of data. This examination focused on 38 commercial banks licensed by CBK. The population under study plays a critical role in the research process. In this particular study, a census approach has been adopted as it scrutinizes all the elements of the population. The data for this inquiry was sourced from primary means, specifically from Questionnaires. Garnering of this primary via the question particularly addressed the independent variable for instance; client appraisal, credit administration, credit risk management and debt collection. Moreover, secondary data was useful in sourcing detailed information to support the study from Central Bank of Kenya, Kenya Banking Association and individual banks to gather information on loan performance, age and firm size. In order to achieve this goal, various tools and techniques was utilized, with SPSS being a key component of the analysis process. Specifically, multiple linear regression was harnessed to analyze the data and generate meaningful insights. A regression analysis was conducted to determine the linear relationship between the variables of the study, which included age, credit risk mitigation, client appraisal, bank size, credit administration, debt collection on loan performance. From the results of regression analysis, it can be noted that the model estimated explains up to 71.9% of the total changes in loan performance as evidenced by the value of R Square in the model of 0.719. This means that the variables age, credit risk mitigation, client appraisal, bank size, credit administration and debt collection are significant in providing explanations on commercial bank loan performance. A rise of one unit in client assessment yields a significant uptick in loan effectiveness by 6.9%, maintaining constant all influencing elements. Additionally, an elevation of one unit in debt retrieval sparks a substantial progression in debt recovery by 20.6%, while preserving consistency in all variables. Advancing credit risk mitigation by a solitary unit result in a 31.4% boost in loan performance, with other factors held steady. A one-unit increase in credit oversight translates to a 22.5% enhancement in loan effectiveness, with all variables remaining constant. Augmenting bank size by one unit leads to a 34.2% augmentation in loan performance, under constant influencing factors. Furthermore, a solitary unit increment in age corresponds to a 23.1% surge in loan effectiveness, with the maintenance of all variables.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Loan performance is the essential element for steadfastness, growth and sustainability of the firm as well as transformation of the economy. Credit is a crucial element that benefits individuals, businesses, and investors by galvanizing deposits, enabling international transfers, and facilitating currency exchange (Mburu, Mwangi & Mwathi, 2020). Effective credit management techniques are essential for both micro and macro activities. It is worth noting that credit allocation can increase costs for successful borrowers, deplete funds, and limit a bank's flexibility in redirecting resources to alternative activities. Moreover, an increment in credit granting is often correlated with an increase in risk (Obae & Jagongo, 2022). Consequently, poor credit management practices can lead to loan defaults, reducing a bank's lending capacity and potentially denying credit accessibility to new applicants (Buro, 2019). Furthermore, it also negatively impacts the inflow and outflow of funds. It is crucial to understand that loan performance is the aggregate amount of loans disbursed, including those that have been serviced according to the loan schedule and those that have defaulted.

Theories underpinning this examination include the credit risk theory postulated by Melton in 1974. It concentrates on the assessment and management of risk pegged on lending. This hypothesis suggests that lenders need to evaluate the borrower's creditworthiness before granting loans. Lenders should analyze the borrower's loan repayment capacity and the potential risks related with the loan. This presupposition emphasizes the importance of proper credit risk management techniques for example; credit scoring, credit monitoring, and loan covenants. Additionally, agency theory as per Jensen and Meckling (1976) emphasizes the vitality of aligning the interests of the borrower and the lender. The agency theory suggests that the borrower may take actions that benefit themselves, but are not in the best interests of the lender. Therefore, lenders need to take measures to align the interests of the borrower and the lender. For example, lenders can require collateral or impose restrictive covenants to reduce the risk of default. Finally, modern portfolio theory embedded by Markowitz (1952) and expounded by Arkelof (1976) focuses intensively on diversification and risk management. Consequently, it suggests that lenders need to manage their loan portfolios to minimize risk and maximize returns. Lenders can achieve this by diversifying their loan portfolios across different sectors, geographic regions, and types of loans.

The banking sector in Kenya is well meek by local private banks (20), followed closely by foreign institutions (17) and local public banks (2) as per Ndugu (2022). The banks play fundamental mandate of enhancing foreign exchange to heightening investment opportunities. Importantly, they play fundamental contribution to providing a broad array of services to both businesses and the individuals. The progress of Kenyan commercial banks has been volatile, marked by periods of growth and decline. Specifically, the number of bank branches in the country slightly decreased to 1,459 in 2021, and the proportion of commercial bank branches per 100,000 adults also declined from 5.6 in 2015 to 4.65 in 2019. Credit Management Techniques (CRT) explains the strategies that lenders maximize in the assessment, monitoring and regulation of risk correlated with the loan portfolio. It is worth noting that credit analysis, monitoring, structuring and collateral management is useful for the improvement of profitability of the commercial banks (Chege, 2021). However, nine commercial banks still accounted for 75% of the market share in 2021. Nonetheless, access to banking services remains unequal, with men and individuals with higher education levels having greater access. On this account, Kenya's formal financial services access has increased to about 84% as of 2021, signifying the significance of the banks' role in promoting economic growth and stability. Ndugu (2022) states that profitability, specifically interest income, contributes to more than 50% of the total revenue for commercial banks, hence, every financial institution should prioritize sustained growth in both loanable funds and risk management. Failure to implement these techniques could lead to stakeholders perceiving the bank as high-risk, resulting in investment withdrawals and problematic organizational growth.

1.1.1 Credit Management Techniques

It involves managing, overseeing, and collecting payments for the credit given to customers. This process includes evaluating a customer's creditworthiness, setting credit limits, and defining payment terms (Otieno, Nyagol & Onditi, 2016). Effective credit management helps businesses to avoid bad debts, reduce financial risks, and improve cash flow. Creditworthiness refers to a customer's ability to repay a loan or credit extended to them. It is determined by factors such as credit history, income, and financial stability (Ahmed & Malik, 2015). The credit limit represents the highest sum of credit available to a customer. It depends on factors such as the customer's creditworthiness, their past payment records, and other relevant considerations (Torotich & Omagwa, 2017). Additionally, payment terms refer to the agreed-upon timeline for repayment of credit extended to customers. These terms include the due date, payment frequency, and any penalties or interest charges for late payment.

A business's prosperity hinges on adept management of its credit. Such proficiency mitigates monetary liabilities and boosts the inflow of cash, both of which are indispensable for expansion and financial gains (Kimutai & Ambrose, 2013). Good credit management practices enable businesses to make well-informed choices regarding offering credit to customers, monitor credit risk, and ensure timely payment collection (Kipsang, 2020). This reduces the likelihood of bad debts and improves the business's financial stability. Additionally, strong credit management practices can help businesses establish better relationships with customers and suppliers, leading to increased trust and loyalty.

Credit management approaches, parameters, and metrics vary depending on the size and scope of the enterprises. One approach is to use credit scoring models that assess a customer's creditworthiness relies on factors like payment and credit history, among others. Another method involves setting credit limits considering aspects like a customer's payment record, income, and fiscal stability. Payment terms can be set based on the type of credit extended, the customer's payment history, and other factors. Another metric is the percentage of bad debts, which measures the proportion of credit extended that is not repaid (Wandera, 2017). The credit utilization ratio is another useful metric that measures the proportion of available credit that a customer is using. These metrics help businesses to monitor credit risk, identify areas for improvement, and make informed decisions about credit management strategies.

1.1.2 Loan Performance

It elaborates on a borrower's capacity to fulfill loan repayment responsibilities promptly and in full. It is an important metric for lenders as it measures the creditworthiness of borrowers and the likelihood of loan default (Abzobu, Agbloyor & Aboagye, 2017). Understanding loan performance is critical for lenders to make informed decisions about loan approvals and monitoring the risk associated with loan portfolios. First, Loan default transpires when a borrower neglects to meet the loan reimbursement requirements as per the agreed upon provisions (Mburu, Mwangi &

Muathe, 2020). Second, loan delinquency refers to the failure of a borrower to make loan payments on time (Wandera, 2017). Third, loan recovery refers to the approaches of collecting unpaid loans from borrowers who have defaulted or become delinquent Satish and Sumantha (2018).

Loan performance is crucial for the financial health of both borrowers and lenders. For borrowers, maintaining good loan performance can improve their credit score and increase their access to credit in the future. Lenders use loan performance as a key metric to gauge the creditworthiness of borrowers and determine the interest rates and terms of the loans. Loan performance is a critical metric for lenders to assess the creditworthiness of borrowers and the risk affiliated with loan portfolios (Ahmed & Malik, 2015). Approaches such as credit scoring models and loan performance metrics, along with parameters such as loan amount and collateral, can help lenders make informed decisions about loan approvals and monitoring. Loan performance metrics such as delinquency rates, default rates, and recovery rates help lenders monitor loan performance and identify areas for improvement in their lending processes.

There are several approaches to measuring loan performance. One approach is to use credit scoring models that evaluate the borrowers' creditworthiness through their credit history, income, and other factors (Moti, Masinde, Mugenda & Sindani, 2012). Another approach is to use loan performance metrics, such as the loan-to-value ratio, debt-to-income ratio, and payment-to-income ratio, to assess the debtor's ability to repay the loan (Nyebar, Obalade & Muzindutsi, 2023). These metrics help lenders to determine the credit risk associated with the loan and make informed decisions about loan approvals and monitoring. Moreover, loan performance is measured using various metrics, such as delinquency rates, default rates, and recovery rates. Delinquency rates measure the percentage of loans that are overdue, while default rates measure the percentage of loans that have been defaulted. Recovery rates measure the percentage of unpaid loans that have been recovered through the collection process (Kofarmata & Dahlami, 2019). These metrics help lenders to monitor the loan performance of borrowers and identify areas for improvement in their loan approval and monitoring processes (Al-Eitan, Khanji & Sarairech, 2023).

1.1.3 Credit Management Techniques and Loan Performance

Over the past few years, credit hazard has become increasingly important due to significant financial losses experienced by financial organizations. As a consequence, financial institutions have taken special measures to prevent predicted fiscal harm caused by mishandling loan allocations and collecting credit. To ensure consistent recoveries from clients, financial institutions need strong and effective credit management practices. They involve strategies used to supervise credit payments from clients as a fundamental component of financial oversight that can be affiliated to loan defaults. Sound credit management lessens the capital tied-up with debtors and mitigates the risk of bad debts (Gichuhi & Omagwa, 2020).

Credit management practices are critical components of hazard management to reduce lower rates of default. Financial institutions' loan portfolio performance is closely linked to the success of credit risk planning, analysis, and monitoring. To mitigate credit risks, financial institutions use a range of credit management practices, such as setting credit limits, requiring collateral, diversifying their loan portfolios, engaging in loan syndication, obtaining credit insurance, and utilizing securitization techniques. Effective credit governance activities are crucial in avoiding unpaid debts and loans that aren't generating returns. Loan terms, credit appraisal, credit risk control, and evaluation policies are significant to loan performance (Chege, 2021).

The appropriate assessment of loan values and evaluation of the correct loan provisions is one of the benefits of optimizing these credit management techniques. An adeptly designed credit management system is advantageous in distinguishing varying levels of credit risk within different credit exposures of financial institutions. As a consequence, to heighten client repayment rates, banks mandated to classify loans according to their credit risk level. In addition, by implementing credit management practices, loan providers can factor in the financial situation and repayment capacity of loan seekers (Mumbi & Omagwa, 2017). Proper documentation of the bank's validation process and consistent reporting of outcomes can help with loan recoveries and minimize non-performing loans. Moreover, independent review of internal credit evaluation models by certified credit experts can aid in identifying and enhancing credit risk areas that are susceptible to loan delinquency.

1.1.4 Commercial Banks in Kenya

Commercial banks (CBs) have a pivotal role in a country's economic growth, providing a diverse array of services, such as deposit collection, lending, money remittance, investment opportunities, and financial advice to individuals and businesses (Mburu, Mwangi, & Muathe, 2020). In Kenya, CBs act as intermediaries between deficit and surplus units of the economy, and currently, 38 CBs licensed and regulated by CBK. Consequently, the CBK is the highest authority mandated by the constitution to create and execute fiscal frameworks, models, and policies in Kenya.

CBs in Kenya are mandated by the CBK to provide audited yearly statements that encompass their fiscal performance and diverse financial hazards such as credit risk and liquidity detrimental. Efficient credit control mechanisms incorporate continuous monitoring and evaluation to ascertain that loans hazard are properly recognized, evaluated, and managed, and appropriate remedial actions are taken. (Obae & Jagongo, 2022). CBK stipulates the minimum amount necessary for banks to maintain solvency and liquidity is crucial. Presently, the average liquidity ratio stands at 48.5%. This minimum threshold ensures smoother operations, activities, and addresses potential fiscal difficulties.

The growth in the loan amount in Kenya's banking has been attributed to the progress made in the fields of production, manufacturing transportation, communication, and the real estate industry. CBs are essential in mobilizing act of saving, investing, and obtaining credit within the economy, and they charge fees for some of their services, such as safe deposit boxes and foreign exchange transactions. CBs make money through interest on loans and other investments. According to CBK (2020) the gross loans grew by 2.15% specifically from 2,847.44 Billion Kenyan Shillings to 2,908.7 Billion Kenyan Shillings in 2020. Consequently, Obare (2022) concluded that the greatest banks play fundamental role in the economic growth. There are 38 commercial banks which are operational in Kenya. This is after mergers, acquisition and the failure of some banks. In conclusion, CBs play an integral duty in the financial sector and economic development of a country. They provide an extensive array of services that are essential to individuals and businesses alike. CBK is responsible for licensing and regulating commercial banks in Kenya (Ndungu, 2020).

1.2 Research Problem

Credit is a paramount element in the economic transformation, enhancing individuals, businesses and investors. It entails the deposits mobilization, local and global transfers and currency exchange (Chege, 2021). These techniques in the credit management are crucial for micro and macro activities. It is crucial to consider that allotting credit inflates expenses for borrowers who prosper, diminishes funds, and constrains banks' adaptability in reallocating resources to other undertakings. When more credit is given out, there's typically a rise in the hazard (Nyangori, 2018). Hence, poor credit management is rubberstamp towards the loan defaults. This reduces the bank's lending capacity and may deny credit accessibility to the new applicants (Buro, 2019). Correspondingly, detrimental also hampers the inflow and outflow of money in a fiscal system. It is important to opine that loan performance expounds the aggregate amount of loans advanced which are defaulted and serviced as per the loan schedule and actual performance.

The commercial banks in Kenya are majorly; local private (20) followed by foreign institutions (17) and local public banks (2) (Ndugu, 2022). In 2021, the number of bank branches decreased slightly to 1,459, and the proportion of commercial bank branches per 100,000 adults declined from 5.6 in 2015 to 4.65 in 2019. Importantly, 9 commercial accounted for 75% of the market share of Kenyan banking sector in 2021. Moreover, in 2021 40% adults in Kenya used banking services, a significant increase from the 14 percent recorded in 2006 (Mburu, Mwangi and Muathe, 2020). However, access to banking services varied according to gender and educational level, with men and individuals with greater education levels are more inclined to use banking services. As of 2021, the overall proportion of Kenyan population with authorized admission to financial facilities has surged to approximately 84%. The banks are responsible for the stability and profitability thereby increasing the economic growth. Profitability, particularly interest income, has become a critical aspect, as it contributes to more than 50% of the total revenue for commercial banks, as stated by Ndung'u (2022). As a result, it is essential for every financial institution to prioritize sustained growth in both loanable funds and risk management. Failure to incorporate these techniques is a recipe for stakeholders perceiving the banks as a high-risk venture and correspondingly can withdraw their investment. This is problematic to the organizational growth.

Globally, Al-Eitan, Khanji and Saraireh (2023) postulated that trade credit management is fundamental for the enhancement of the profitability among the manufacturing firms in the manufacturing industries in Jordan. Poor management of credit increases dilemma in the profitability of the banking sector. Branzoli and Fringuellotti (2020) investigated credit monitoring in relation to the loan repayment. This examination was undertaken in Italian context using causal analysis. Moreover, Idris and Nayan (2016) looked into the non-performing loan in Southeastern part of Asia. Repayment of the loans should adhere to stipulated timeframe, consequently, high and unprecedented level of loan default increases the financial distress in the banking field. Credit management is paramount for the sustenance and growth of banks. It is vital to note that the banking sector is very sensitive. Low credit management causes financial predicaments, increase default risk and may drive the bank to operational oblivion. There are several banks that have collapsed. In 2023, Signature Bank and Silicon Valley Bank collapsed within an interval of 48 hours in New York and Calif respectively. Other global banks that have reached operational conundrum include; Erickson State Bank in 2020, Washington Federal Bank in 2017, Resolute Bank in 2019, Allied Bank in 2016, Premier Bank in 2014 and Western National Bank in (2010) (Federal Deposit Insurance Corp, 2023).

Locally, Oteino and Nyagol (2016) analyzed the CRM in respect to the financial performance using descriptive techniques. The findings concluded that CRM affected the performance negatively and substantively. Gichuhi and Omagwa (2020) investigated the credit management in conjunction with the loan portfolio performance. Due to this fact, the context of the study were

SACCOs situated in Nyandarua County. As a consequence, explanatory research was utilized with the immense assistance of questionnaires data aimed at seeking the first-hand data. The findings recorded a none-substantive positive effect of CRM on loan portfolio performance. Consequently, Mburu, Mwangi, and Muathe (2020) investigated the credit governance activities with key consideration of loan performance. This examination delved immensely on commercial banks while maximizing both primary and secondary dataset. As per this examination, the loan performance of the commercial banks located in Kenya was positively impacted by their debt collection as well as the lending policies. As a consequence, client appraisal did not post a significant effect of loan performance. On the other side, the study's conclusion indicated that credit management practices implemented by commercial banks were the main factor contributing to their loan performance.

From foregone investigations, voluminous investigations have been spearheaded expeditiously to explain the interrelations amid credit management techniques and LP. Nonetheless, despite this plethora of examination, there is still a great deal of controversy surrounding this relationship. Additionally, with mixed findings, researchers have recommended further studies and different approaches. In particular, the results that are unfinished and conflicting, which include Positive, neutral, and negative connections indicate that there is a significant knowledge gap which needs to be addressed. It is worthwhile stating that one reason for mixed findings could be the use of different contexts, concepts, and methodologies in the various studies conducted. For instance, some studies may have focused on CRT and LP in the context of specific industries, while others may have examined these variables from a general perspective. Furthermore, different research methods may have been employed, leading to discrepancies in the results obtained. In this scenario, there is a pressing need for more comprehensive study that specifically answer the question on; what is impact of credit management techniques on loan performance of commercial banks in Kenya?

1.3 Objective of the Study

The study aims to ascertain how credit management techniques impact the loan performance of commercial banks in Kenya.

1.4 Value of the Study

The present research not just contributes to the prevailing pool of information but also acts as a significant resource for upcoming investigators. It's crucial in attaining the research goals by enhancing our grasp and perception of diverse credit management methods. Additionally, the study empowers academics to formulate applicable strategies and acquire current data, facilitating the comparison and exploration of other fields and sectors in greater depth. In general, it assists in making cross-disciplinary connections that add to the knowledge base.

The research is crucial not only for scholars but also for banks and policymakers. Banks can benefit by creating new knowledge and sharing their insights, while policymakers, such as the CBK and other government entities can gain valuable insights from this study. Partnering with specialists from institutions can improve the understanding, integration of fresh approaches, and the enhancement of current expertise. Additionally, banks in the business sector can devise pragmatic, relevant, and analytical strategies to minimize risks, ensuring their competitive edge in the market.

The study's results are significant for the study examines how theories align with practical operations and surveillance within commercial banks. It delves into the profound correlation between theories and the research, emphasizing their relevance and the gaps the study aims to fill. It's informative, pinpointing where theories apply, fostering a deeper comprehension of valuable practices, and exploring various hazards categories. In summary, this research provides valuable insights for various stakeholders, including scholars, banks and policy makers.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter outlines pertinent theoretical framework and hypothesis for the assessment. Moreover, it also delineates the factors that influence financial performance. Furthermore, the research examines previous studies to enhance the understanding of the topic. This scrutiny aims to fill gaps in the existing research by summarizing the literature and identifying areas that require further investigation. Finally, the chapter concludes by presenting a theoretical framework that illustrates the relationship amid elements.

2.2 Theoretical Framework

This subsection is built upon several theories that replenish a foundation for the examination of credit risk management. One such theory is the credit risk theory proposed by Melton in 1974. It centers on the evaluation and management of lending risks. This theory asserts that lenders should thoroughly assess a borrower's creditworthiness before granting loans. Such evaluation should take into account the capacity of the borrower to repay the loan and associated potential risks. It highlights the significance of effective credit risk management techniques such as credit scoring, credit monitoring, and loan covenants. In addition, agency theory by Jensen and Meckling (1976) emphasizes the importance of aligning the interests of individual taking the loan and the institution lending it.. This theory suggests that borrowers may take actions that primarily benefit them, but which may not be in the best interest of the lender. Therefore, lenders need to take measures to align their interests with those of the borrower. This may include requiring collateral or imposing restrictive covenants to reduce the risk of default. Finally, the modern portfolio theory, introduced by Arkelof (1976), focuses on diversification and risk management. The theory suggests that lenders should manage their loan portfolios in a way that minimizes risk while maximizing returns. Lenders can achieve this by diversifying their loan portfolios across various sectors, geographic regions, and loan types. Overall, these theories provide a robust framework for understanding and managing credit risk.

2.2.1 Credit Risk Theory

It is paramount to exemplify that credit risk theory is a framework for assessing and managing the risks associated with lending activities as opined by Melton (1974). The theory assumes that lenders should appraise the financial standing and repayment capability of loan seekers before advancing loans. This involves analyzing the capability of the borrower to repay the loan and the possible risks linked to it. Hypothesis also posits that loan providers must implement suitable practices for managing credit risks such as; credit scoring, credit monitoring, and loan covenants. These techniques can help lenders to reduce the risk of default and improve loan performance.

As per Chege (2022), this theory has some shortcomings and has been criticized for several reasons. First, the theory assumes that lenders have perfect information about borrowers, which is not always the case. Borrowers may provide incomplete or inaccurate information, making it difficult for lenders to evaluate their creditworthiness accurately. Second, the theory assumes that lenders have the ability to monitor borrowers continuously, which may not always be practical or feasible. Third, the theory assumes that lenders have the power to enforce loan covenants effectively. However, borrowers may find ways to circumvent these covenants or violate them without consequence.

Notwithstanding its limitations, credit risk theory is still relevant to credit management and loan performance. Lenders can use loan hazard administration techniques such as credit scores, credit evaluations, and loan covenants to lower the chances of non-payment and enhance the loan's performance. Credit scoring can assist lenders in assessing the creditworthiness of borrowers objectively and consistently. Credit monitoring can help lenders to track borrowers' credit performance and detect early warning signs of potential default. Loan covenants can help lenders to enforce borrower compliance and reduce the risk of default. By adopting these techniques, lenders can improve their credit risk management practices and achieve better loan performance outcomes (Chege, 2022).

2.2.2 Agency Theory

It is imperative to highlight that agency theory was formulated by Jensen and Meckling (1976) and it explores the concept that enunciates the interaction between two entities, the principal and the agent, whereby the agent is endowed to pursue the principal’s chief objectives and interests. The theory makes some assumptions, including that agents are self-interested and may act in ways that do not align with the interests of the principal, and that the principal may not have full information on the works of the agent. Additionally, the concept postulates that there are costs associated with monitoring the actions of the agent, and the principal must balance these costs against the benefits of ensuring that the agent acts in their best interest.

Despite its widespread use, agency theory has also faced criticism. One of the main criticisms is that the theory supposes that all individuals act in their own self-interest, which may not always be the case. Furthermore, the theory assumes that agents would always act in their best interest, even if it means harming the principal. This assumption ignores the possibility that agents may also have a moral or ethical obligation to work in the best interest of the principal. Additionally, the hypothesis has been criticized for not adequately addressing the issue of trust between the principal and agent, which can be a crucial factor in their relationship (Kipkirui, 2020)

The relevance of agency theory to credit management and loan performance is that lenders need to assure that borrowers work in their best interest and that there is alignment between the interests of the lender and borrower. Lenders can use agency theory to design loan contracts that align the interests of the borrower and lender, such as through the use of collateral or restrictive covenants. Additionally, monitoring the actions of the borrower can help ensure that they are operating in the ultimate interest of the lender. By understanding agency theory, lenders can design loan contracts that maximize their chances of getting paid back while minimizing the risk of default Jubery, Moeljadi, Fajri and Atim (2017)

2.2.3 Modern Portfolio Theory

It's important to note that MPT is a method for building and handling investment portfolios, aiming to strike a balance between risk and return, as introduced by Markowitz (1952). The theory operates under the assumption that investors act rationally and prefer less risk, aiming to maximize returns while minimizing potential risks. MPT posits that the risk and return of a portfolio are determined not just by the performance of individual assets, but also by their correlation with each other. The theory assumes that diversification across a variety of assets can reduce overall portfolio risk, as assets with low correlation would tend to perform differently in different market conditions.

Critics of MPT argue that the theory relies heavily on historical data and assumptions about market efficiency that may not always hold true. In particular, the theory presupposes that asset returns are normally distributed, which may not be the case in real-world market conditions. Critics also argue that MPT can be overly complex, making it difficult for investors to implement in practice (Sirucek, Martin & Lukas Kren, 2015). Additionally, some argue that the theory's focus on reducing risk may lead investors to overlook opportunities for higher returns.

Despite its limitations, MPT remains a widely used framework for managing investment portfolios. In the context of credit management and loan performance, MPT can be applied by lenders to manage their loan portfolios in a way that minimizes risk while maximizing returns (Ndung'u 2022). For example, lenders can diversify their loan portfolios across different sectors, geographic regions, and types of loans, in order to reduce exposure to any one type of risk. MPT can also be used to analyze the risk and return of individual loans, helping lenders to identify those loans that are most likely to perform well in different market conditions. By applying MPT principles to credit management and loan performance, lenders can seek to optimize the tradeoff between risk and return in their loan portfolios Halim and Yuliati (2020).

2.3 Determinants of Loan Performance

The evaluation of commercial banks' performance is a complex task that involves assessing how well they manage their assets. In this regard, credit risk management is a crucial factor that necessitates careful consideration as it determines the bank's capability to sustain its operations, remain competitive in the market and improve their loan performance. CRT presents strategies to banks by minimizing their exposure to complications that can hinder their efficiency and effectiveness. To address this issue, the CBK has mandated commercial banks to develop and implement risk mitigation measures. By closely monitoring and managing these risks, banks can ensure their financial stability and improve their loan performance. This involves implementing appropriate risk management practices, such as credit scoring, collateral requirements, and loan covenants, to mitigate credit risk. This study looks at client appraisal, credit collection, credit administration and credit risk management.

2.3.1 Client Appraisal

According to Chege (2021) client appraisal is a credit management technique that involves evaluating a borrower's creditworthiness before granting a loan. The process includes reviewing the borrower's credit history, financial statements, and other relevant documents to determine their ability to repay the loan. Client appraisal is crucial in credit management and loan performance for various reasons. One advantage of client appraisal is that it helps the lender assess the borrower's creditworthiness and repayment capacity. This enables the lender to make informed decisions regarding the borrower's creditworthiness, thereby reducing the risk of default. Additionally, client appraisal enables the lender to set appropriate interest rates and loan terms, which can optimize the bank's profits.

However, client appraisal also has some drawbacks. One disadvantage is that it can be time-consuming and costly. The process involves a lot of paperwork, verification, and analysis, which can be time-consuming and require specialized skills. Additionally, client appraisal may not always be accurate, and there is a risk of misjudging the borrower's creditworthiness. Despite the drawbacks, client appraisal is a crucial credit management technique that can significantly impact loan performance. It helps lenders to identify creditworthy borrowers, set appropriate loan terms, and optimize their returns. Lenders should, therefore, invest in robust client appraisal systems that strike a balance between accuracy and efficiency (Mburu, Mwangi, & Muathe, 2020).

2.3.2 Credit Collection

According to Obae (2022) credit collection is an important aspect of credit management techniques that impacts loan performance. Credit collection involves the recovery of loans that have been given out but not repaid. Effective credit collection practices are essential for maintaining the financial health of lenders and ensuring that borrowers honor their loan obligations. Effective credit collection practices can lead to improved loan performance. Lenders can recover loans that are due, reducing non-performing loans (NPLs) and improving their portfolio quality. Additionally, credit collection ensures that lenders have a steady cash flow. This enables them to meet their operational expenses and continue to lend money to other borrowers.

Moreover, effective credit collection practices can motivate borrowers to settle their debts. This occurs as a consequence of borrowers knowing that the lender can take action to recover their money if they fail to repay. Nonetheless, in some cases, credit collection practices can be seen as harassment by borrowers. Lenders may use aggressive tactics to recover their money, causing distress and anxiety to borrowers. Moreover, lenders who use unprofessional or unethical credit collection practices risk damaging their reputation. This can lead to loss of customers and difficulty in attracting new borrowers. Consequently, lenders need to be careful when collecting debts as there are laws that regulate debt collection. Failure to comply with these laws can lead to legal action against the lender. In a nutshell, credit collection is an important aspect of credit management techniques that impacts loan performance. While effective credit collection practices can lead to improved loan performance and cash flow, there are potential drawbacks such as harassment, reputation damage, and legal issues that lenders need to be aware of. Therefore, it is essential for lenders to use professional and ethical credit collection practices to avoid these drawbacks (Gichuhi & Omagwa, 2020).

2.3.3 Credit Administration

It is to the overall management of loan credit operations in a fiscal organization, including credit origination, monitoring, and collection (Ndung'u, 2022). Effective credit administration is crucial for ensuring the quality loan portfolio and minimizing credit risk. It is imperative to postulate that credit administration helps to ensure that the credit policies and procedures of the institution are followed consistently across all credit operations (Al-Eitan, Khanji & Saraireh, 2023). It facilitates effective credit monitoring and risk management by providing regular reports on the status of the loan portfolio, identifying loans' problems, and recommending appropriate actions. It can enhance the efficiency of credit operations by streamlining processes and reducing duplication of efforts. Moreover, it helps to maintain accurate records and documentation of credit transactions, which is important for compliance and regulatory purposes.

Credit administration can however be time-consuming and resource-intensive, particularly for smaller financial institutions that may have limited staff and resources (Afriyie, & Akotey, 2018). It may involve significant paperwork and documentation requirements, which can be burdensome and may discourage some borrowers from seeking credit. It can create additional costs for borrowers, as financial institutions may pass on the costs of credit administration to borrowers through higher interest rates or fees (Mumbi & Omagwa, 2017). It may lead to a more rigid and inflexible credit process, which may not be suitable for all borrowers or credit products. While it may have some drawbacks, the benefits of effective credit administration, including improved risk management and loan quality, typically outweigh the costs.

2.3.4 Credit Risk Mitigation

According to Kisaka 2016, credit risk mitigation refers to the various strategies employed by lenders to reduce the risk of loan defaults. It is worthwhile noting that credit risk mitigation techniques such as credit scoring, credit monitoring, and collateral requirements can help lenders to minimize their losses in case of loan defaults. In addition, the lenders can increase their lending capacity by approving loans to borrowers who may not have qualified for a loan otherwise. Furthermore, credit risk mitigation techniques such as diversification of loan portfolios across different sectors, geographic regions, and types of loans can help lenders to manage their risk exposure.

Nevertheless, credit risk mitigation techniques such as credit scoring and monitoring can be expensive to implement and maintain, leading to increased costs for the lender (Obae & Jagongo, 2022). In addition, some credit risk mitigation techniques such as collateral requirements can reduce the profitability of loans for the lender, as they may have to sell the collateral at a discount in case of loan default. Furthermore, credit risk mitigation techniques such as high credit score requirements can reduce access to credit for borrowers who may not have a high credit score but have other means to repay the loan. In general, while credit risk mitigation techniques can help lenders to reduce the risk of loan defaults, they can also lead to increased costs and reduced profitability for the lender. It is therefore essential for lenders to strike a balance between risk mitigation and profitability while ensuring that borrowers have access to credit.

2.3.5 Bank Size

In their research article titled "Examining the Influence of Firm Size, Growth, and Profitability on Firm Value with Capital Structure as the Mediating Factor," Purwohandoko (2017) underscored the importance of the magnitude of the company in the verdict-making process and continuous enhancement of business operations. The evaluation delved into the correlation between organization size, expansion, profitability, and the value of the company, with capital structure playing a mediating role. The evaluation's findings emphasized the criticality of firm size in shaping various dimensions of a firm's performance and value.

Likewise, Mwangi (2018) conducted an investigation titled "Analyzing the Impact of Size on the Financial Performance of Commercial Banks in Kenya." The investigation aimed to explore the impact of size on the fiscal performance of commercial banks in Kenya. The outcomes from preceding studies revealed a mixture of results, with some indicating negative effects, others suggesting neutral effects, and a few demonstrating positive effects of size on firm performance.

However, despite the existing body of research, a comprehensive examination focusing specifically on commercial banks in Kenya is still lacking. More extensive and detailed studies are necessary to gain a profound understanding of the intricate association amid organization size and pecuniary performance within the specific setting of commercial banks in Kenya. Such research endeavors hold the potential to provide valuable insights and contribute to the existing knowledge in this field.

2.3.6 Age

Olutayo (2015) executed evaluation by examining the link amidst firm age and various aspects of business operations. The assessment provided an overview of current activities and offered proposals for tomorrow directions. Foster (2017) gave an outline of current methodologies and proposed recommendations for forthcoming directions. The study centered on the impact of budget preparation, financial control, company maturity, and financial effectiveness in smaller enterprises. Its objective was to explore the correlation between these elements and their influence on business results. Pervan, Pervan, and Ćurak (2017) investigated the effect of firm lifespan on performance, specifically within the Croatian food sector.

However, it's crucial to mention that the outcomes of these studies are not conclusive. The findings presented a mixture of positive, negative, and neutral effects, indicating that the link amid firm age and performance is complex and multifaceted. Moreover, it is worth mentioning that these studies were conducted globally and may not be directly applicable to the specific context of Kenya. Therefore, further examination is required to thoroughly understand the implications of firm age on performance within the Kenyan business landscape. Additional research focusing on the local context is needed to draw more definitive conclusions and provide relevant insights for businesses in Kenya.

2.4 Empirical Review

Chaudhary, Pankaj; Kumar and Anil (2023) study's aims to assess how credit risk impacts the fiscal performance of banks, which is crucial for the survival of banks and the protection of customer interests. Specifically, the study examines the relationship between NNPA as predictor element and ROA and ROE as explained factors. Moreover, the control factors were; bank size, deposit, assets management, loan advances, and longevity capital, business productivity per employee, and earnings and losses per employee. The investigation utilizes data from the top 36 CBs in India, half of which half of them belong to the public sector while the rest are from the private sector, covering the timeframe between 2010 and 2019. To address any potential endogeneity issues, dynamic panel data techniques are applied. The discoveries suggest that NNPA has a significant adverse effect on both measures of bank performance. However, the investigation did not analyzed CRT and Loan performance in the Kenyan context.

According to Twum, Agyemang, and Sare (2022 the financial market's effectiveness is determined by the financial crisis, which is often caused by credit risk. China's credit risk can impact the global economy, as it is the swiftest-expanding economy and the world's second-best economy in terms of gross domestic product. To delineate the connection amidst credit risk and business performance, this study employed panel data for 28 listed CBs in China for period spanning from 1990-2020. Conclusion was possible by utilizing GMM as the chief estimator with the PMG as a reinforcement estimator. The results showed an inverse and statistically substantive interrelations between NPLs and ROE, together with loan default provisions and bank beneficial. However, the capital adequacy proportion showed statistically and positively significant interrelation with bank's performance. Although credit growth posited a positive effect on bank performance, it was statistically insignificant.

In the context of Ghana, multinomial logistic regression was utilized to analyze credit rationing within mall and medium enterprise (SME) sector by Domeher, Musah and Poku (2017). On this account, outcome indicated that credit rationing was present among SMEs, and that the variations in credit rationing were influenced by both business and SME owner characteristics. However, the study's reliance on survey responses introduced the potential for biases in the assessment of credit rationing. In addition, the use of indirect methods was limited due to the lack of publicly accessible dataset. Nonetheless, the prevailing analysis aimed to address this gap by utilizing CMT, primary data and published loan performance's information sourced from CBK and yearly reports from banks. Hence, local investigation was fundamental for wider understanding.

Yin et al. (2021) examined the elements that determine the GCR and the influence of green credits on the profitability and credit risk. Contextually, investigation looked at Chinese banks from 2011-2018 optimizing bank level data. GMM was applied to aid the comprehension of China's green credit policy determining GCR and its correlation with bank profitability as well as credit hazards. The results indicate that larger and more profitable banks are more likely to issue green credits, and bank risk does not significantly affect GCR. State-owned banks have likelihood of issuing green credits, driven by China's strong commitment to green credit policy. Green lending has a positive effect on the profitability and risk of non-state-owned banks. However, state-owned banks grants green credits at the expense of their profitability, as they are encouraged by the Chinese government to undertake a leading role in green lending. Nevertheless, this examination was undertaken in China and there is need for Kenyan research.

In 2016, Balgova, Nies and Plekhanov conducted research on influence of NPLs on the economic performance of a country. As a result, investigation utilized a longitudinal design and found that reducing NPLs had a clearly positive impact on the medium-term economic performance of a country. However, assessment did not scrutinize how CMT influenced loan performance. Despite this, the study confirmed the detrimental effects of NPLs on the economy, highlighting the importance of managing them. The present exploration aimed to examine the association amid CMT and loan performance.

Plosser (2016) undertook an evaluation on significance of bank supervision on overall bank performance. In that scenario, inquiry used a matched sampling approach and discovered that top-performing banks had more stable loan portfolios but maximizes conservative practices, indicating the gravity of bank regulations. Nevertheless, scrutiny did not examine how bank supervision affected LP. The study focused only on one aspect of central bank regulations, which may not be applicable to other areas. In contrast, the current study examines how bank supervision affects loan performance, considering various aspects of central bank regulations in Kenya. Nonetheless, the examination failed to consider CMT in Kenya.

Gichuhi and Omagwa (2020) investigated the impact of borrower evaluation, loan issuance guidelines, debt recovery procedures, and credit diversification on the loan portfolio's efficacy for SACCOs in Nyandarua County, Kenya. The study maximized an explanatory research framework, with a census approach targeting 25 SACCOS in Nyandarua County. Questionnaires were expedited through the drop-box system to source first-hand data. Validity and reliability were assessed through expert opinion, pre-testing, and Cronbach's Alpha reliability test. Different analytical techniques, including descriptive in addition to inferential methods, used to examine gathered data. The outcomes posit that loan LP is significantly influenced by customer assessment, lending guidelines, debt recovery policy, and loan variety. Pearson correlation analysis showed a strong positive relationship amid assessing clients, lending policy, and collections strategy showed a link with loan portfolio performance. Loan diversification also displayed a positive connection., but the interrelation was weak. Contrary, the investigation focused on different contexts, methods and concepts of the examination.

Mburu, Mwangi, and Muathe (2020) study's period covered five years, from 2015 to 2018, during which Commercial banks had an average non-performing loan rate of 11%, which surpasses the recommended rate of 1%. The 5Cs model for credit served as the theoretical foundation while at the same time using explanatory research design and positivism research philosophy. Importantly, exploration targeted 44 CBs in Kenya. Moreover, census approach was pivotal in acquiring data, both primary and secondary sources were used. Structured questionnaires were crucial for collecting CMT data, while secondary data was obtained by examining the bank's loan records from 2015 to 2018. It specifically delved into the amount of loans disbursed and the number of loans that were not performing. The scrutiny incorporated descriptive and inferential statistical mechanisms using SPSS version 22 to compute the dataset. The findings unveiled that the LP in CBs in Kenya is significantly influenced by lending policy and debt collection policy. However, the client appraisal did not significantly impact the LP. Based on these results, the assessment established that the effectiveness of credit management practices implemented by commercial banks plays a pivotal function in determining their loan performance. Nonetheless, the study leaves some gaps to be filled, such as influence of other credit administration techniques on LP in CBs in Kenya.

In this exploration, the effect of credit monitoring on loan repayment was examined using data from the Italian Credit Register by Branzoli and Fringuellotti (2020). Through a causal analysis, it was discovered that credit monitoring significantly reduces the likelihood of delinquency, especially for loans that receive oversight from banks, such as term loans. The study utilized a theoretical model that suggests that a reduction in tax rates can increase banks' incentives to monitor their clients by boosting returns from loans. However, it should be articulated that the assessment was undertaken in the Italian context, which has distinct banking characteristics that differ from those in Kenya. Overall, the findings suggest that effective credit monitoring practices can have a positive impact on loan repayment rates. In contrast, this examination focuses on CMT and loan performance.

Kipsang (2020) did examination impact of debt recovery and loan performance using descriptive survey design was exploited to investigate the impact of debt recovery strategies on loan performance. The study revealed a significant positive association between loan performance and penalties, indicating that imposing fines encouraged borrowers to repay loans promptly and reduced the likelihood of loan defaults. Additionally, adverse credit listings were found to have a considerable impact on loan recoveries, suggesting that sharing credit information enabled digital lenders to address credit rationing concerns effectively. The study also showed that limiting loan amounts promoted compliance among various customers, which is essential for digital lenders' profitability and revenue generation. However, this inquiry was only conducted on Fintech firms in Kenya, leaving a gap that needs to be addressed in this examination concerning the commercial banking sector.

Mumbi and Omangwa (2017) aimed at assessing the influence of CRM on the financial performance of chosen CBs in Kenya. Empirical evidence collected indicated that credit risk control has a positive impact on the FP of CBs in Kenya. The study utilized a descriptive research design and employed probability sampling method to select 42 respondents from 5 banks. Information was gathered through the use of questionnaires. The inquiry's results portrayed that the recovery of debt did not have a noteworthy impact on the bank's performance. Nevertheless, the loan assessment process, credit policies, and lending requirements exhibited a substantial influence on the bank's performance. Based on the outcome, the researchers concluded that commercial banks need to ensure that their credit risk exposure is regulated at acceptable levels in order to optimize the bank's risk-adjusted return. Therefore, this study seeks to expound on the preceding investigation by looking at credit management techniques.

Another study reviewed was conducted by Gizaw, Kebede, and Selvaraj (2015), which aimed to investigate the impact of credit risk on the profitability of CBs in Ethiopia. The assessment collected dataset from eight sample CBs over a timeframe of twelve years (2003-2014), using yearly reports from the multiple banks and the National Bank of Ethiopia. The dataset was computed using descriptive statistics and panel data regression. In addition, the inquiry concluded that loan loss provisions, NPLs, credit risk measures, and capital inadequacy were all detrimental to the profitability of CBs in Ethiopia. Contrary this assessment looked at profitability contrary to the loan performance.

A mixed analysis approach was employed to examine the evaluation of loan appraisal on credit performance effectiveness in MFIs operating in Uganda Aliija and Muhangi (2017). The study's results demonstrated a significant correlation between client appraisal and credit performance. Therefore, improving client appraisal methods within MFIs would enhance their effectiveness and, consequently, lead to better credit performance. However, it should be noted that the study only focused on the microfinance firm sector, which has a distinct loan structure and institutional framework compared to the commercial banking enterprises.

In their evaluation, Mulyungi and Mulyungi (2020) investigated the impact of client appraisal on the financial performance of institutions, focusing on Guaranty Trust Bank Rwanda, using a descriptive research design. As a results, the evaluation posted a positive correlation between client appraisal and financial performance. The inquiry suggests that properly evaluating clients based on factors such as their business finances, personal characteristics, credit scoring models, credit reference bureau utilization, and credit risk analysis is essential for identifying reliable borrowers to receive loans. By identifying effective strategies for assessing borrower suitability, the likelihood of loan defaults and overall loan performance can be reduced.

2.5 Conceptual Framework

This experiment uses a systematic conceptual framework to illustrate a connection at a particular moment. Its purpose is to clarify the variables, basic concepts, and ideas involved, thereby helping to understand their relationship. In short, it assists in decision-making, organizing thoughts, capturing important information, and aligning with research objectives as postulated below.

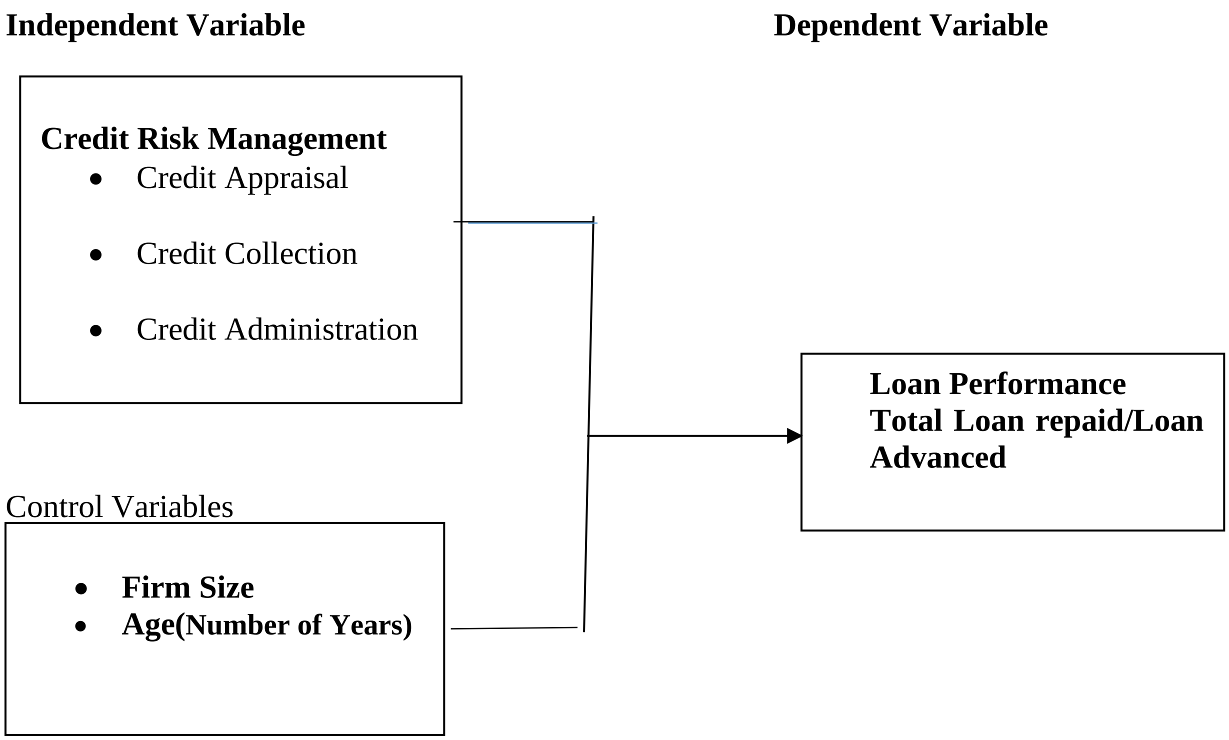


Figure2.1: Conceptual Model

Source: Researcher, 2023

2.6 Summary of Literature Review and Knowledge Gaps

The strength of banks act a crucial part in the growth and stability of an economy. For this reason, it is important to consider profitability and capital adequacy as elements that determine the stability of banks (Mumbi & Omangwa, 2020). Several studies such as Ndungu (2022) have investigated the effect of CRM on the fiscal performance of commercial banks, with most of them focusing on the various tools, techniques, and strategies used by institutions to manage credit risk. Since credit hazard is one of the most substantive hazards faced by CBs in Kenya, it is essential to study its impact CMT on loans performing loan in the Kenyan context.

Njeru, Mohhamed, and Wachira (2018) undertook a survey to examine the effect credit appraisal on the effectiveness of CB in Kenya. The findings revealed that credit appraisal undertakes a paramount duty in determining the performance of the banking industry. By giving importance to previous information, credit history, and credit referencing when lending to borrowers, credit appraisal is strengthened, and the likelihood of credit defaults is reduced. Although some studies have shown that managing credit risks positively affects the profitability of commercial banks (Mulyungi & Mulyungi, 2020), others have found a negative impact (Gizaw, Kebede, and Selvaraj, 2015). Therefore, there is a need for a study to compare and contrast the results in the Kenyan context, where there is limited reviews on CMT and financial performance of CBs.

The target of this evaluation is to investigate interlink between CMT and the level of LP by CBs in Kenya, particularly in light of the deteriorating loan performance observed among commercial banks in Kenya. The assessment seeks to pinpoint credit governance techniques that minimize risks, maintain risk exposure, and protect financial institutions from credit risks while ensuring efficient credit functioning and profitability. Although there is theoretical support for credit management practices, the findings from empirical studies have been inconsistent and inconclusive, especially with regard to their impact on loan performance. Accordingly, this scrutiny seeks to fulfill the knowledge gaps in the literature by investigating CMT practices and LP of CBs in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This field is a crucial aspect of research design, providing comprehensive insights into the population under study. It explains the advanced techniques utilized for data collection and analysis, supported by an appropriate analytical model. The chapter covers various topics, including research objectives, gaps, and current trends that require forecasting. Additionally, it encompasses diagnostic tests and inferential statistics, ensuring accurate and reliable results. Overall, this chapter addresses a wide range of issues, providing a solid foundation for the research study.

3.2 Research Design

The design research is a noteworthy element of any investigation, offering a blueprint for gathering, assessing, examining, and interpreting data. It helps to illustrate the bigger picture in regards to coherence, systematic structure, and its ability to tackle existing challenges, research design stands as a critical factor. Cooper (2011) highlighted the significance of research structure in presenting and interpreting outcomes. By combining quality and quantity, it reinforces the in-depth outcomes of assessment. For this specific evaluation, a descriptive research framework was selected to enhance the portrayal of the cause-and-effect correlation amidst elements.

Creswell and Creswell (2017) explained that assessment approach provides the structure for collecting and analyzing data. It creates an avenue for the scrutiny as well as interpretation of entails to bridge available gaps. Kothari (2015) emphasized the significance of establishing connections amid elements by optimizing descriptive research design. Hence, a descriptive design acts as the blueprint for this study, improving the portrayal of the cause-and-effect link amidst factors

Overall, research design is crucial to the success of a study as it provides a clear roadmap and structure for the research process. The choice of research design was carefully considered to ensure that it aligns with the research objectives and is capable of addressing the prevailing challenges. The use of descriptive research design is particularly beneficial for studies seeking to demonstrate the connection of cause and effect amidst elements by providing a clear framework for analysis and interpretation of data.

3.3 Population

This examination focused on 38 commercial banks licensed by CBK. The population under study plays a significant role in the research procedure. In this particular assessment, a census approach has been adopted as it examine all the factors of the population. The information was gathered from primary sources such as surveys and interviews, as well as secondary sources such as the CBK, KBA, and individual banks. By selecting the appropriate population, this study can provide sufficient outcomes to bridge any knowledge gaps that may exist. Furthermore, the use of a census study is very beneficial for enhancing forecasting as it provides a high degree of generalizability.

The choice of population for a study is crucial as it can impact the validity and reliability of the findings. By using a census approach, this study aims to capture a comprehensive representation of the population, thereby ensuring that the findings are applicable to the entire population. Using both primary and secondary sources for gathering data also enhances the credibility and trustworthiness of the findings by offering diverse data origins.

Overall, the choice of a census approach for this study is a wise decision as it allows for a comprehensive examination of the entire population in the assessment. The utilization of primary and secondary information sources ensures that the findings are accurate and reliable. The ability of a census study to enhance forecasting by providing a high degree of generalizability is particularly advantageous, as it enables the findings to be applied to the broader population. All the banks operational as at 31st December, 2022 are in appendix I.

3.4 Data Collection

The information for this investigation was obtained directly through primary methods, particularly from the use of questionnaires. Garnering of this primary via the question particularly addressed the independent variable for instance; client appraisal, credit administration, credit risk management and debt collection.

The assessment concentrates on four main categories of four predictor variables: client appraisal, credit administration, credit risk management and debt collection using Likert scale. The primary data obtained from questionnaires allowed for an in-depth analysis. Data for bank size and age were assembled via secondary data. By examining these specific areas of credit management techniques, this study aims to provide insights and recommendations that can help organizations better manage and enhance credit management techniques in the future. Moreover, utilization of secondary data from financial statement is a valuable approach for this study, as it provides a wealth of information that can be analyzed and interpreted to inform policy and decision-making. The focus on specific categories of risk and areas of credit management helped to ensure that the findings are relevant and applicable to real-world situations.

3.5 Data Analysis

The gathered data underwent thorough scrutiny. Hence, information obtained through primary sources underwent a rigorous and comprehensive process in order to improve its quality. This process involved various procedures aimed at enhancing the standards of the data. Once these procedures have been completed, the valuable data was organized and readied for assessment. This preparation involved assembling the data, reviewing it to ensure accuracy, classifying it into appropriate categories, and coding it in a systematic manner. It holds significance to make a note of that the significance of data cannot be overstated, as it is the foundation upon which accurate and reliable findings can be generated. As such, it is crucial to ensure that the data is of the highest quality possible.

In order to achieve this goal, various tools and techniques was utilized, with SPSS being a key component of the analysis process. Specifically, multiple linear regression was harnessed to scrutinize the information and generate meaningful insights. This statistical method allows for the examination of the correlation amid several explanatory elements and a singular response factor. This was crucial in understanding the various factors that impact the research question in the evaluation. Overall, the phases of sourcing, preparing, and scrutinizing data is a complex and multifaceted one, requiring careful attention to detail and a comprehensive understanding of the research goals and objectives. By utilizing appropriate tools and techniques, however, it is possible to generate accurate and reliable findings that can inform decision-making and drive progress in a wide range of fields.

3.5.1 Diagnostic Tests

The idea of connection, size, and orientation is based on the connections amidst variables. In order to assess these relationships, it is necessary to conduct a multicollinearity test using the VIF. Additionally, a normality test was executed using a combination of the Shapiro-Wilk and Kolmogorov-Smirnov tests. To assess self-correlation, the Durbin Watson test was utilized.

Normality refers to distribution pattern of data and can provide important insights into the research findings. Autocorrelation, on the other hand, is a measure of randomness in the data. Multicollinearity, meanwhile, focuses on the strength of the relationships among the predictor variables. If multicollinearity is present, highly correlated predictor variables may need to be dropped from the analysis.

In summary, the assessment of association, magnitude, and direction between variables requires a comprehensive understanding of the interrelationships that exist among them. This can be achieved through the use of various statistical tests, including multicollinearity tests, normality tests, and autocorrelation tests. By carefully assessing these factors, it is possible to generate accurate and meaningful findings that can inform decision-making and drive progress in a wide range of fields.

3.5.2 Analytical Model

The central aim of data analysis is to arrive at a conclusion. Finding that elaborates on the existing associations among the variables. This analysis involved the use of a model that is capable of demonstrating the correlations between the various factors in a snapshot. By analyzing the model, it is possible to identify several key aspects that are essential for explaining the predicted variable when all predictor variables are combined.

In summary, the model can be summarized in a concise format that outlines its key components and features. This format provides a clear and comprehensive overview of the various factors that are involved in the analysis process. By utilizing this model, it is possible to generate accurate and reliable findings that can inform decision-making and drive progress in a wide range of fields.

$$\mathbf{Y=\alpha 0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_3X_3+\beta_4X_4+\beta_5X_5+\beta_6X_6+\varepsilon}$$

Whereby:

Y= Loan Performance (Total loan repaid/total loan advanced)

$\alpha 0$=y intercept of the regression (constant element)

X_1= Client Appraisal

X_2= Credit Administration

X_3= Debt Collection

X_4= Credit Risk Mitigation

X_5= Bank Size (Natural log of total assets)

X_6= Age (Natural log of number of years)

ε= error term

3.5.3 Significance Test

The primary goal of the research is to establish the significance level of the data under investigation. In order to achieve this objective, the T-test and F-test was crucial in explaining the various significance degree. Specifically, the 5% and 95% confidence levels were utilized to provide a clear understanding of the statistical significance of the data.

Furthermore, ANOVA was useful to explain the dispersion of the data concerning the average. This analysis involves comparing and analyzing different datasets in order to enhance comprehension of the underlying patterns and trends. By examining the variance of the data, it is possible to gain valuable insights into the significance of the research findings and the connections amid elements under investigation.

In summary, the investigation utilized a range of statistical techniques and tests to establish the level of significance of the data. This involved a comprehensive analysis of the confidence levels, as well as an examination of the spread of the data in connection to the mean. By carefully assessing these factors, it is possible to generate accurate and meaningful findings that can inform decision-making and drive progress in a wide range of fields.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The part outlines the details of the analysis of data by presenting the scrutiny results plus their interpretation. The findings help in understanding the credit governance techniques and the performance of commercial banks in Kenya. The main statistical software that assisted in the analysis of data was SPSS where data was coded in an excel sheet and loaded into it. The results were then presented in the form of descriptive and inferential statistics. The descriptive statistics entailed the means, standard deviation, minimum and maximum values whereas the inferential statistics entailed the correlation and regression analysis results. In summary, the section dealt with the discussion and the interpretation of the outcome of this research. A total of 38 commercial banks were considered in the study. The study adopted both primary and secondary data. Information was sourced from five managers in each of the 38 commercial banks. Out of a sample of 190 managers, the study obtained complete responses from 163 managers representing a feedback rate of 85.8%, which is good for a research.

4.2 Demographic Information

The information relating to the respondents who participated in assessment are outlined. This information related to the number of years of service each of the respondents had served in their commercial banks as at the time of study. It can be observed that 42.1 percent of the respondents had served for amid 6 and 10 years, 28.9 percent over 16 years, 26.3 percent between 11 and 15 years and 2.6 percent below 5 years. Thus, this reflection is that the respondents were knowledgeable about their respective commercial banks. These results are outlined in Figure 1.

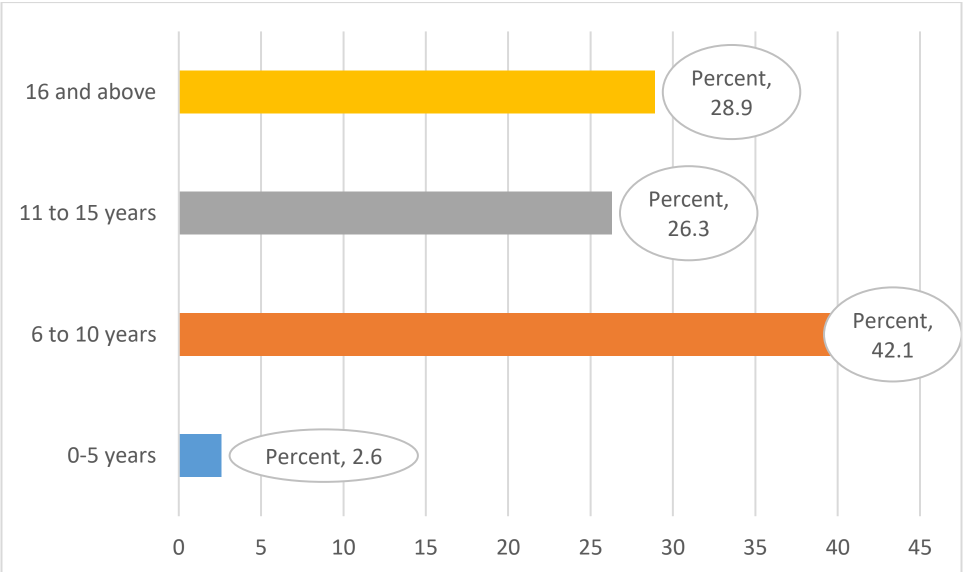


Figure 4.1: Years of Service

4.3 Descriptive Statistics

Descriptive statistics are significant as they provide the explanations of the characteristics of the dataset. The descriptive statistics entailed the means, standard deviation as well as percentages. The investigation adopted primary and secondary data. The primary data was gathered using a questionnaire. A Likert Scale was used with values amid from 1 to 5 with 1 representing Strongly Disagree (SD), 2 for Disagree (D), 3 for Neutral (N), 4 for Agree (A) and 5 for Strongly Agree (SA).

4.3.1 Client Appraisal

The scrutiny aimed to discover impacts of client appraisal on the loan performance of the identified commercial banks in Kenya. The descriptive outcomes entail percentages, mean and standard deviation. From the results, the question, have proper techniques for managing customers' repayment history been put in place received responses as follows; 27.3% of the responses were in strongly in tandem, 36.8% in agreement while 34.2% neutral with a mean of 3.8 and a corresponding SD of 0.9 implying that on average, the responses were in agreement. In addition, 27.3% of the respondents further agreed that loan is repayment is managed by the expertize, 31.6% taking a neutral stand and 26.3% strongly agreeing with a mean and SD of 3.5 and 1.2 in that order.

Regarding the question, the highly risky loans are only given with commensurate collateral securities, 31.6% of those contacted did strongly agree, 18.4%, agreeing whereas 31.6% did not take sides with a mean of 3.6 and an SD of 1.2. With an average of 3.7 and SD of 1.7, 34.2% of the responses were in agreement that there is intense client evaluation before giving out loans. Furthermore, 23.7% were in tandem while 21.1% did not take sides. Finally, 28.9% of the responses were in strong agreement that there are periodic check-balances about credit scoring level. However, 18.4% were in agreement and 39.5% neutral with a mean of 3.6 and an SD of 1.1. The discoveries are presented in Table 4.1.

Table 4.1: Descriptive Results for Client Appraisal

	SD f %	D f %	N f %	A f %	SA f %	M	S Dev
We have proper techniques for managing customers repayment history	2.6%	2.6%	34.2%	36.8%	23.7%	3.8	0.9
Loan is repayment is managed by the expertize	5.3%	13.2%	31.6%	23.7%	26.3%	3.5	1.2
The highly risky loans are only given with commensurate collateral securities	5.3%	13.2%	31.6%	18.4%	31.6%	3.6	1.2
There is intense client evaluation before giving out loans	5.3%	15.8%	21.1%	23.7%	34.2%	3.7	1.3
There are periodic check-balances about credit scoring level	2.6%	10.5%	39.5%	18.4%	28.9%	3.6	1.1

4.3.2 Debt Collection

The study aimed at finding out the effects of debt collection on the loan performance of the identified commercial banks in Kenya. The descriptive discoveries entail percentages, mean and standard deviation. The statement, we plan adequately for most effective way of collecting debts recorded responses as follows. 36.8% of the responses were in strongly in agreement, 15.8% in tandem while 31.6% neutral with a mean of 3.7 and a corresponding SD of 1.1 implying that on average, the responses were in agreement. 18.4% of the responses further agreed that majority our loans have shorter average collection period, 28.9% taking a neutral stand and 44.7% strongly agreeing with a mean and SD of 4.0 and 1.1 respectively.

Regarding the question, our bank experiences a high debtor's turnover, 36.8% of those contacted did strongly agree, 34.2%, agreeing whereas 15.8% did not take sides with a mean of 3.8 and an SD of 1.1. With an average of 4.0 and SD of 0.9, 31.6% of the responses were in agreement that there are critical debtors’ collection strategies in our bank. Furthermore, 36.8% were in strong concurrence while 28.9% did not take sides. Finally, 44.7% of the responses were in strong agreement that the repayment schedule is regularly evaluated and monitored. However, 21.1% were in agreement and 18.4% neutral with a mean of 3.9 and an SD of 1.1. The uncovers are highlighted in Table 4.2.

Table 4.2: Descriptive Results for Debt Collection

	SD	D	N	A	SA		
	f %	**f %**	**f %**	**f %**	**f %**	**M**	**S Dev**
We plan adequately for most effective way of collecting debts	0.0%	15.8%	31.6%	15.8%	36.8%	3.7	1.1
Majority our loans have shorter average collection period	0.0%	7.9%	28.9%	18.4%	44.7%	4.0	1.0
Our bank experiences a high debtor's turnover	0.0%	13.2%	34.2%	15.8%	36.8%	3.8	1.1
There are critical debtors collection strategies in our bank	0.0%	2.6%	31.6%	28.9%	36.8%	4.0	0.9
The repayment schedule is regularly evaluated and monitored	0.0%	15.8%	18.4%	21.1%	44.7%	3.9	1.1

4.3.3 Credit Risk Mitigation

The study aimed at finding out the effects of credit risk mitigation on the loan performance of the identified commercial banks in Kenya. The descriptive results entailed percentages, mean and standard deviation. It can be noted from the results, the question, we have made a provision for bad debts attracted responses as follows. 31.6% of the responses were in strongly in agreement, 28.9% in tandem while 28.9% neutral with a mean of 3.8 and a corresponding SD of 1.0 meaning that on average, the responses were in concurrence. 39.5% of the responses further agreed that they have strategizes to minimize default risk, 15.8% taking a neutral stand and 34.2% strongly agreeing with a mean and SD of 3.7 and 1.1 accordingly.

In relation to the query, there are credit monitoring procedures aimed managing frequency of borrowing, 31.6% of those contacted did strongly agree, 28.9%, agreeing whereas 15.8% did not take sides with a mean of 3.7 and an SD of 1.2. With an average of 3.8 and SD of 1.1, 42.1% of the responses were in agreement that the risk is well calculated and determined by the bank. Furthermore, 42.1% were in strong concurrence while 7.9% did not take sides. Additionally, 55.3% of the responses were in strong agreement that they use insurance as another layer of risk mitigation to minimize the potential losses in case of borrower default. However, 13.2% were in agreement and 13.2% neutral with a mean of 4.0 and an SD of 1.3. Outcomes are highlighted in Table 4.3.

Table 4.3: Descriptive Results for Credit Risk Mitigation

	SD	D	N	A	SA		
	f %	**f %**	**f %**	**f %**	**f %**	**M**	**S Dev**
We have made a provision for bad debts	0.0%	10.5%	28.9%	28.9%	31.6%	3.8	1.0
We have strategies to minimize default risk	0.0%	10.5%	39.5%	15.8%	34.2%	3.7	1.1
There are credit monitoring procedures aimed managing frequency of borrowing	0.0%	23.7%	15.8%	28.9%	31.6%	3.7	1.2
The risk is well calculated and determined by the bank	0.0%	7.9%	42.1%	7.9%	42.1%	3.8	1.1
We use insurance as another layer of risk mitigation to minimize the potential losses in case of borrower default.	2.6%	15.8%	13.2%	13.2%	55.3%	4.0	1.3

4.3.4 Credit Administration

The core goal of the assessment was to determine the impacts of credit administration on the loan performance of the identified commercial banks in Kenya. The descriptive results entailed percentages, mean and standard deviation. It is worth noting from the results, the statement, our bank projects the client's repayment pattern received responses as follows. 23.7% of the responses were strongly in agreement, 42.1% in tandem while 15.8% neutral with a mean of 4.0 and a corresponding SD of 1.1 meaning that on average, the responses were in concurrence. 31.6% of the responses further agreed that their staff is well-informed about the cost of credit and hidden expenditure, 10.5% taking a neutral stand and 55.3% agreeing strongly with a mean and SD of 4.2 and 1.1 respectively.

Concerning the statement, the loan allocation policy is carefully designed to ensure that loans are distributed based on clients' creditworthiness and potential profitability, 42.1% of those contacted did strongly agree, 31.6%, agreeing whereas 13.2% did not take sides with a mean of 3.8 and an SD of 1.1. With an average of 3.7 and SD of 1.0, 42.1% of the responses were in agreement that proper hierarchy is followed when allocating loans as per the policy. Furthermore, 31.6% were in strong concurrence while 18.4% did not take sides. Finally, 44.7% of the responses were in strong agreement that the administration cost is minimized to ensure the bank optimal performance. However, 26.3% were in agreement and 21.1% neutral with a mean of 4.1 and an SD of 1.0. The findings are delineated in Table 4.4.

Table 4.4: Descriptive Results for Credit Administration

	SD	D	N	A	SA		S De v
	f %	f %	f %	f %	f %	M	
Our bank projects the client's repayment pattern	2.6%	15.8%	42.1%	15.8%	23.7%	4.0	1.1
Our staff is well-informed about the cost of credit and hidden expenditure	2.6%	0.0%	31.6%	10.5%	55.3%	4.2	1.1
The loan allocation policy is carefully designed to ensure that loans are distributed based on clients' creditworthiness and potential profitability.	0.0%	13.2%	31.6%	13.2%	42.1%	3.8	1.1
Proper hierarchy is followed when allocating loans as per the policy	0.0%	7.9%	42.1%	18.4%	31.6%	3.7	1.0
The administration cost is minimized to ensure the bank optimal performance	0.0%	7.9%	21.1%	26.3%	44.7%	4.1	1.0

4.3.5 Bank Size, Age and Loan Performance

The evaluation focused on establishing significance of bank size and age of the bank on the loan performance of the identified commercial banks in Kenya. The descriptive results entailed mean, standard deviation, maximum and minimum values. Secondary data was adopted for these variables. The mean for loan performance was 6.26 and its standard deviation was 1.75. Its maximum and minimum values were 8 and 3 respectively. The mean for bank size was 2.9737 and its standard deviation was 0.1622. Its maximum and minimum values were 3 and 2 in that order. The mean for the age of the bank was 3and its standard deviation was 0.00. Its maximum and minimum values were both 3. The findings are delineated in Table 4.5.

Table 4.5: Descriptive Results for Bank Size, Age and Loan Performance

	N	Minimum	Maximum	Mean	Std. Deviation
Loan Performance	163	3	8	6.26	1.75
Bank Size	163	2	3	2.9737	0.16222
Age	163	3	3	3	0.000
Valid N (listwise)	163				

4.4 Diagnostic Tests

4.4.1 Tests for Multicollinearity

Multicollinearity entails the correlations between the independent variables of the study (William *et al.* 2013). Multicollinearity amplifies the standard errors and confidence intervals, resulting in unstable estimates of predictor coefficients (Belsley et al., 1980). Multicollinearity was assessed in the research through the examination of Variance Inflation Factors. When VIF values exceed 10, it signifies the presence of multicollinearity, whereas values below 10 indicate the absence of multicollinearity among the elements (Field, 2009). Based on the discoveriess, all variables exhibit VIF values below 10 (specifically, 1.257, 1.074, 2.416, 2.298, 2.540, and 2.369), suggesting no multicollinearity within the dataset.

Table 4.6: Multicollinearity Test Results

	Collinearity Statistics	
	Tolerance	**VIF**
Bank Size	0.795	1.257
Bank Age	0.931	1.074
Client Appraisal	0.414	2.416
Debt Collection Mean	0.435	2.298
Credit Risk Mitigation	0.394	2.540
Credit Administration	0.422	2.369

4.4.2 Autocorrelation Tests

Serial correlation was conducted to check the correlation of error terms among the variables. The study adopted Durbin Watson test to test for autocorrelation. Durbin Watson value=2 indicates that there is no auto correlation. A Durbin-Watson value less than 2 implies the existence of positive autocorrelation, whereas a Durbin-Watson value exceeding 2 suggests the potential presence of negative autocorrelation. The outcomes indicate that the Durbin Watson for the estimated model is 1.994 a value close to 2 and reflection that there is no autocorrelation in the data set. Thus, the data is fit to carry out regression analysis.

Table 4.7: Autocorrelation Test Results

Model	Durbin-Watson
1	1.994

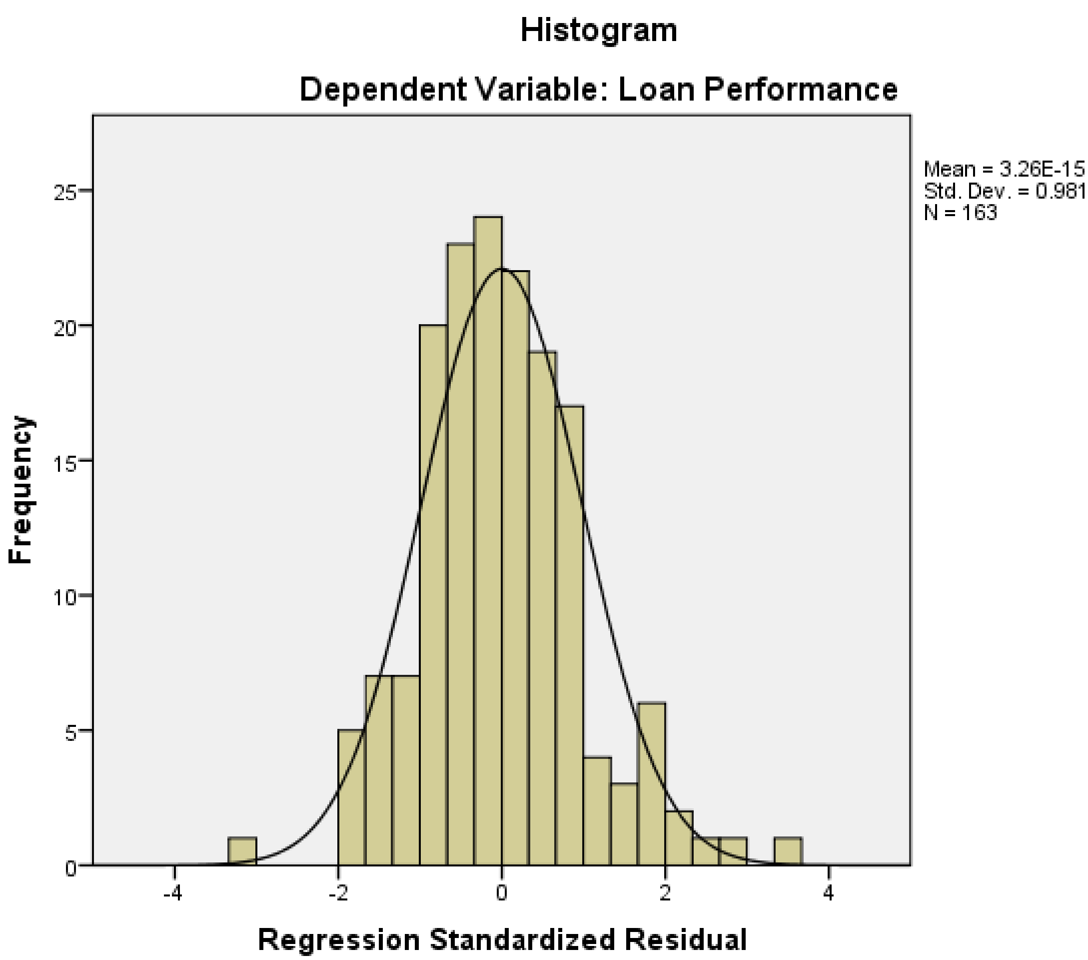
a Predictors: (Constant), Age, Credit Risk Mitigation, Client Appraisal, Bank Size, Credit Administration, Debt Collection

b Dependent Variable: Loan Performance

4.4.3 Normality Tests

Before carrying out regression analysis, it is necessary to test on the distribution of data. The assumption of normality (ut ~ N (0, σ2)) is therefore necessary (Brooks, 2008). The study applied a histogram plot in testing for normality. As can be observed from the histogram plot in Figure 4.1, the data set in the study is normally distributed and the hence the zero hypothesis that the data is not normally allocated is refused and the study fails to decline the alternative hypothesis.

Figure 4.2: Normality Test Results



4.5 Inferential Analysis

In this examination, inferential analysis involved using regression and correlation analyses to reveal and elucidate variable connections. Regression analysis gauged the impact of regressors variables on the predicted variable, yielding insights into predictive patterns and their effects. In contrast, correlation analysis measured linear associations in the midst of variables, clarifying their interconnectedness. These methods synergistically deepened comprehension of variable interrelations, aiding significant inferences and implications from data.

4.5.1 Correlation

A Pearson correlation assessment was carried out to ascertain the intensity and orientation of connections among the variables under examination. The findings revealed a favorable and statistically noteworthy correlation (0.528, $p<0.05$) between client evaluation and loan effectiveness. In addition, the results of correlation between debt collection and loan performance was also positive and significant (0.570, 0.000<0.05). Credit Risk Mitigation further indicated a significant positive correlation with loan performance (0.524, 0.00<0.05). The correlation between credit administration and loan performance was positive (0.550) and statistically significant (0.000<0.05). In addition, bank size indicated a positive (0.589) and significant (0.000<0.05) correlation with the performance of the commercial bank loans. Finally, bank age results pointed to a significant positive correlation with loan performance (0.503, 0.000<0.05). Thus, it can be concluded that the identified assessment factors are significant in giving explanations to the performance in commercial bank loans. The correlation findings are delineated in Table 4.9.

Table 4.8: Correlation Results

		Loan Performance	Bank Size	Years of Service	Client Appraisal	Debt Collection	Credit Risk Mitigation	Credit Administration
Loan Performance	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	163						
Bank Size	Pearson Correlation	.589**	1					
	Sig. (2-tailed)	0.000						
	N	163	163					
Bank Age	Pearson Correlation	.503**	0.153	1				
	Sig. (2-tailed)	0.000	0.051					
	N	163	163	163				
Client Appraisal	Pearson Correlation	.528**	.396**	.191*	1			
	Sig. (2-tailed)	0.000	0.000	0.015				
	N	163	163	163	163			
Debt Collection	Pearson Correlation	.578**	.410**	.225**	.653**	1		
	Sig. (2-tailed)	0.000	0.000	0.004	0.000			
	N	163	163	163	163	163		
Credit Risk Mitigation	Pearson Correlation	.524**	.372**	0.12	.686**	.668**	1	
	Sig. (2-tailed)	0.000	0.000	0.128	0.000	0.000		
	N	163	163	163	163	163	163	
Credit Administration	Pearson Correlation	.550**	.352**	.195*	.672**	.646**	.688**	1
	Sig. (2-tailed)	0.000	0.000	0.013	0.000	0.000	0.000	
	N	163	163	163	163	163	163	163

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

4.5.2 Regression Analysis

A regression examination was performed to establish the linear correlation between the study's elements, which included age, credit risk mitigation, client appraisal, bank size, credit administration, debt collection on loan performance. From outcomes of regression evaluation, it can be noted that 0.829 portrays strong interrelationship. The model estimated explains 68.7% of the total changes in loan performance as evidenced by the value of R Square in the model of 0.687. This means that the variables age, credit risk mitigation, client appraisal, bank size, credit administration and debt collection are significant in providing explanations on commercial bank loan performance. The model summary results are tabulated below.

Table 4.9: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.829a	0.687	0.675	0.0751

a Predictors: (Constant), Age, Credit Risk Mitigation, Client Appraisal, Bank Size, Credit Administration, Debt Collection

4.5.3 Analysis of Variance

In addition, the model estimated was significant statistically. This is provided by estimated P value of 0.000<0.05. Further, these results can be ascertained by the estimated value of F (57.161) which is far greater than the F critical value ($F_{6,\ 156}$ = 2.0986). Thus, the identified study variables are significant in giving explanations on loan performance. The ANOVA establishmentare outlined in Table 4.11.

Table 4.10: ANOVA Results

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.935	6	0.322	57.161	.000b
Residual	0.880	156	0.006		
Total	2.814	162			

a Dependent Variable: Loan Performance

a Predictors: (Constant), Age, Credit Risk Mitigation, Client Appraisal, Bank Size, Credit Administration, Debt Collection

4.5.4 Regression Coefficients

Based on the regression coefficient outcomes, the estimated model's constant exhibited a negative value on table 4.12. A rise of a single escalation in client assessment yields a substantial 2.5% advancement in loan effectiveness. This intimates that when the evaluation of a client's creditworthiness progresses, the likelihood of the loan's successful repayment elevates by 2.5%, under the premise of all other influential factors retaining constancy.

A singular unit escalation in debt collection induces a marked 3.4% amplification in debt retrieval outcomes. This signifies that when endeavors to recoup outstanding debts ameliorate by one unit, the prospect of successfully recuperating those debts augments by 3.4%, while keeping all other variables unwavering.

The augmentation of credit risk mitigation by one unit corresponds to a substantial 3.4% surge in loan performance. This denotes that augmenting credit hazard mitigation strategies by a solitary unit can engender a 3.4% upswing in the triumph of loan repayment, under the condition that other influencing factors remain unaltered.

Elevating credit elevation by a unit culminates in a notable 1.9% enhancement in loan effectiveness. This conveys that ameliorating credit oversight practices by a single unit augments the likelihood of superior loan performance by 1.9%, assuming the stasis of all other factors.

An augmentation in bank size by a singular unit corresponds to a consequential 0.02% upsurge in loan effectiveness. This implies that with a one-unit increment in the size of the institution, there ensues a 0.02% escalation in the potential for successful loan performance, while keeping all other influencing factors constant.

A rise of one unit in age begets a noteworthy 0.03% expansion in loan effectiveness. This signifies that as the borrower's age advances by a single unit, there materializes a 0.03% augmentation in the likelihood of prosperous loan repayment, assuming the constancy of all other variables.

Table 4.11: Regression Coefficients

	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	-0.535	0.085		-6.294	0.000
Bank Size	0.0002	0.00003	0.256	4.794	0.000
Bank Age	0.0003	0.00005	0.319	6.822	0.000
Client Appraisal	0.025	0.008	0.168	3.017	0.003
Debt Collection	0.034	0.010	0.183	3.332	0.001
Credit Risk Mitigation	0.034	0.009	0.207	3.907	0.000
Credit Administration	0.019	0.009	0.122	2.113	0.036

a Dependent Variable: Loan Performance

$\mathbf{Y= \alpha_0+ \beta_1X_1+ \beta_2X_2+ \beta_3X_3+\beta_4X_4+ \beta_5X_5+ \beta_5X_5+ \varepsilon}$

$\mathbf{Y=-0.535+ 0.0002X_1+ 0.0003X_2+ 0.025X_3+0.034X_4+ 0.034X_5+ 0.019X_5+ \varepsilon}$

A rise of one unit in client assessment yields a significant uptick in loan effectiveness by 0.25%, maintaining constant all influencing elements. Additionally, an elevation of one unit in debt retrieval sparks a substantial progression in debt recovery by 3.4%, while preserving consistency in all variables. Advancing credit risk mitigation by a solitary unit result in a 3.4% boost in loan performance, with other factors held steady. A one-unit increase in credit oversight translates to a 1.9% enhancement in loan effectiveness, with all variables remaining constant. Augmenting bank size by one unit results to a 0.02% augmentation in loan performance, under constant influencing factors. Furthermore, a solitary unit increment in age corresponds to a 0.03% surge in loan effectiveness, with the maintenance of all variables.

4.6 Discussions

From the results of the regression coefficients, the constant of the estimated model was negative (-0.596) indicating that there are other factors other than the variables age, credit risk mitigation, client appraisal, bank size, credit administration and debt collection that can be used to explain the changes in loan performance. Furthermore, the coefficient of client appraisal was positive (0.025) and significant ($0.003<0.05$) implying that improving client appraisal by a unit leads to a significant improvement in the loan performance. Client appraisal is a credit management technique that involves evaluating a borrower's creditworthiness before granting a loan. The factors to be considered during client appraisal include the credit history of the borrower as well as their financial statements (Karanja & Simiyu, 2022).

One advantage of client appraisal is that it helps the lender assess the borrower's creditworthiness and repayment capacity thus, enabling the lender to make informed decisions regarding the borrower's creditworthiness, thereby reducing the risk of default. Additionally, client appraisal enables the lender to set appropriate interest rates and loan terms, which can optimize the bank's profits (Chege, 2021). Some of the main disadvantages of client appraisal include one that it can be time-consuming and costly. The process involves a lot of paperwork, verification, and analysis, which can be time-consuming and require specialized skills. Additionally, client appraisal may not always be accurate, and there is a risk of misjudging the borrower's creditworthiness (Mburu, Mwangi, & Muathe, 2020).

The coefficient of debt collection was positive (0.0.034) and significant (0.001<0.05) implying that improving debt collection by a unit leads to a significant improvement in the loan performance. Obae (2022) indicates that credit collection involves the recovery of loans that have been given out but not repaid. Effective credit collection practices are essential for maintaining the financial health of lenders and ensuring that borrowers honor their loan obligations. Effective credit collection practices can lead to improved loan performance. Lenders can recover loans that are due, reducing non-performing loans (NPLs) and improving their portfolio quality. Additionally, credit collection ensures that lenders have a steady cash flow. This enables them to meet their operational expenses and continue to lend money to other borrowers.

Furthermore, effective credit collection practices can motivate borrowers to settle their debts. Nonetheless, in some cases, credit collection practices can be seen as harassment by borrowers. Lenders may use aggressive tactics to recover their money, causing distress and anxiety to borrowers. Moreover, lenders who use unprofessional or unethical credit collection practices risk damaging their reputation. This can lead to loss of customers and difficulty in attracting new borrowers. Consequently, lenders need to be careful when collecting debts as there are laws that regulate debt collection. Failure to comply with these laws can lead to legal action against the lender. While effective credit collection practices can lead to improved loan performance and cash flow, there are potential drawbacks such as harassment, reputation damage, and legal issues that lenders need to be aware of. Therefore, it is essential for lenders to use professional and ethical credit collection practices to avoid these drawbacks (Gichuhi & Omagwa, 2020).

The coefficient of credit risk mitigation further was positive (0.034) and significant (0.0000<0.05) implying that improving credit risk mitigation by a unit yields to a significant improvement in the loan performance. Kisaka 2016 argues that credit risk mitigation refers to the various strategies employed by lenders to reduce the risk of loan defaults. It is worthwhile noting that credit risk mitigation techniques such as credit scoring, credit monitoring, and collateral requirements can help lenders to minimize their losses in case of loan defaults. In addition, the lenders can increase their lending capacity by approving loans to borrowers who may not have qualified for a loan otherwise. Furthermore, credit risk mitigation techniques such as diversification of loan portfolios across different sectors, geographic regions, and types of loans can help lenders to manage their risk exposure.

Nevertheless, credit risk mitigation techniques such as credit scoring and monitoring can be expensive to implement and maintain, leading to increased costs for the lender (Obae & Jagongo, 2022). In addition, some credit risk mitigation techniques such as collateral requirements can reduce the profitability of loans for the lender, as they may have to sell the collateral at a discount in case of loan default. Furthermore, credit risk mitigation techniques such as high credit score requirements can reduce access to credit for borrowers who may not have a high credit score but have other means to repay the loan (Misra et al., 2023). In general, while credit risk mitigation techniques can help lenders to reduce the risk of loan defaults, they can also lead to increased costs and reduced profitability for the lender. It is therefore essential for lenders to strike a balance between risk mitigation and profitability while ensuring that borrowers have access to credit.

The coefficient of credit administration was positive (0.019) and significant (0.036<0.05) implying that improving credit administration by a single entity brings about a noteworthy enhancement in the loan performance. Credit administration refers to the overall management of credit operations in a fiscal institution, including credit origination, monitoring, and collection (Ndung'u, 2022). Effective credit administration is crucial for ensuring the quality loan portfolio and minimizing credit risk. It is imperative to postulate that credit administration helps to ensure that the credit policies and procedures of the institution are followed consistently across all credit operations (Al-Eitan, Khanji & Saraireh, 2023). It facilitates effective credit monitoring and risk management by providing regular reports on the status of the loan portfolio, identifying loans' problems, and recommending appropriate actions. It can enhance the efficiency of credit operations by streamlining processes and reducing duplication of efforts. Moreover, it helps to maintain accurate records and documentation of credit transactions, which is important for compliance and regulatory purposes.

Credit administration can however be time-consuming and resource-intensive, particularly for smaller financial institutions that may have limited staff and resources (Afriyie, & Akotey, 2018). It may involve significant paperwork and documentation requirements, which can be burdensome and may discourage some borrowers from seeking credit. It can create additional costs for borrowers, as financial institutions may pass on the costs of credit administration to borrowers through higher interest rates or fees (Mumbi & Omagwa, 2017). It may lead to a more rigid and inflexible credit process, which may not be suitable for all borrowers or credit products. While it may have some drawbacks, the benefits of effective credit administration, including improved risk management and loan quality, typically outweigh the costs.

The coefficient of bank size was positive (0.0002) and significant (0.000<0.05) implying that improving the size of the bank by a unit leads to a significant improvement in the loan performance. Purwohandoko (2017) underscored the importance of firm size in the decision-making process and continuous enhancement of business operations. Firm size is critical in shaping various dimensions of a firm's performance and value. Mwangi (2018) further indicated that the effects of firm size on the firms' performance could be two ways. Some could indicate negative effects, others suggesting neutral effects, and a few demonstrating positive effects of size on firm performance. Bank size has a negative relationship with non-performing loans. It leads to a reduction in non-performing loans. Bank size plays a major role in impacting on the financial performance of commercial banks in Kenya (Akhter, 2023).

The regression coefficient of bank age was positive (0.0.0003) and significant (0.000<0.05) implying that banks that have established well are better in loan performance compared to the bank that are in the process of establishing themselves. It is deemed that the commercial banks that have been in operations for a long period of time have the experience in dealing and lending to clients. Such banks have developed mechanisms that are instrumental in managing defaults. These banks also are likely to have loyal substantial customer base. Thus, the cases of default in these banks are expected to be low and the interest income are likely to outweigh the costs from non-performing loans. Owing to the large capital base of the established commercial banks, the interest income is also expected to be substantial and significantly contributes to the profits of the company (Pham & Nguyen, 2023). The regression coefficient results are tabulated in Table 4.12.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

The part is a presentation of key results from the analysis. The evaluation then outlines the conclusions the study makes based on summarized results of study and finally the basis of the recommendations are the conclusions of the study. The section presents the summary, conclusion and recommendations based on the aim of the assessment, which were to determine the significance of client evaluation, debt collection, credit risk mitigation, credit administration, bank size, age on loan performance of commercial banks in Kenya.

5.2 Summary of the Findings

Constructed model exhibited noteworthy statistical significance, as indicated by calculated p-value of 0.000, which is less than established threshold of 0.05. Moreover, this observation is bolstered by calculated F value (57.161), which significantly surpasses the critical F value ($F6, 31 = 2.4205$). Thus, the variables under scrutiny in this study hold substantial importance in elucidating loan performance. From the outcomes of the regression analysis, it's apparent that a strong interrelationship is reflected by the coefficient of 0.829. The formulated model effectively accounts for 68.7% of the overall variance in loan performance, evident from the R Square value of 0.687. This underscores the significance of age, credit risk mitigation, client appraisal, bank size, credit administration, and debt collection variables in providing comprehensive insights into the performance of commercial bank loans.

The foremost goal was to investigate the outcomes of client appraisal on the loan performance of commercial banks in Kenya. The correlation discoveries unveiled that the correlation amid client appraisal and loan performance was positive and statistically significant (0.515, 0.001<0.05). The regression results on the other end reflected that coefficient of client appraisal was positive (0.025) and significant (0.003<0.05). This shows that client appraisal is significant in explaining the performance of commercial bank loans in Kenya.

The furthermore, it aims of this research was to investigate the influence of debt collection on the loan performance of commercial banks in Kenya. The results of correlation amid debt collection and loan performance was also positive and significant (0.520, 0.001<0.05). The results of regression coefficients pointed out that the coefficient of debt collection was positive (0.034) and significant (0.001<0.05). Thus, debt collection is a significant variable that is instrumental in giving explanations on the changes in loan performance.

Theanother goal was to investigate the significance of credit mitigation risk on the loan performance of commercial banks in Kenya. Credit Risk Mitigation further indicated a significant positive correlation with loan performance (0.508, 0.001<0.05). The regression coefficient outcomes indicated that the coefficient of credit risk mitigation further was positive (0.034) and significant (0.000<0.05). This therefore means that the efficient risk mitigation of credit is critical in explaining the performance of loans among the Kenyan commercial banks.

Further, it investigated the impact of credit administration on the loan performance of commercial banks in Kenya. The correlation between credit administration and loan performance was positive (0.514) and statistically significant (0.000<0.05). Upon performing regression, the outcomes pointed out that the coefficient of credit administration was positive (0.019) and significant (0.036<0.05). Hence, the efficiency and effectiveness in the way credit is administered by the commercial banks significantly explains the performance of loans among the Kenyan commercial banks.

The assessment study also aimed to uncover significance of bank size on the loan performance of commercial banks in Kenya. Bank size indicated a positive (0.548) and significant (0.000<0.05) correlation with the performance of the commercial bank loans. The examination of the regression outcomes showed that the coefficient of bank size was positive (0.0002) and significant (0.000<0.05). The implication of these results are therefore that the size of the bank can employed to explain the changes in loan performance of commercial banks in Kenya.

The effect of the age of the bank was also determined in the study and the bank age results did indicate a significant positive correlation with loan performance (0.515, 0.001<0.05). The results of regression evaluation indicated that the regression coefficient of bank age was positive (0.0003) and significant (0.000<0.05). Thus, the age of bank is critical in providing explanations of the variations in loan performance.

5.3 Conclusions

Investigation concluded that client appraisal is significant in elaborating the performance of commercial bank loans in Kenya. Client appraisal involves evaluating a borrower's creditworthiness before granting a loan. The factors to be considered during client appraisal include the credit history of the borrower as well as their financial statements, thereby reducing the risk of loan default. Client appraisal enables the lender to set appropriate interest rates and loan terms, which can optimize the bank's profits. However, it can be time-consuming and costly.

The study further concludes that debt collection is a significant variable that is instrumental in giving explanations on the changes in loan performance. Effective credit collection practices are essential for maintaining the financial health of lenders and ensuring that borrowers honor their loan obligations. Lenders can recover loans that are due, reducing non-performing loans (NPLs) and improving their portfolio quality as well as ensuring a steady cash flow. Effective credit collection practices can motivate borrowers to settle their debts. However, harassing borrowers, being unprofessional or unethical when collecting debts damages the company reputation. This can yield loss of customers among other costs.

The efficient risk mitigation of credit is critical in explaining the performance of loans among the Kenyan commercial banks. Credit risk mitigation is the various strategies employed by lenders to reduce the risk of loan defaults. These strategies include credit scoring, credit monitoring, and collateral requirements, diversification of loan portfolios across different sectors, geographic regions, and types of loans can help lenders to manage their risk exposure. Credit risk mitigation techniques such as credit scoring and monitoring can be expensive to implement and maintain, leading to increased costs for the lender. In addition, techniques such as high credit score requirements can reduce access to credit for borrowers who may not have a high credit score but have other means to repay the loan.

The efficiency and effectiveness in the way credit is administered by the commercial banks significantly explains the performance of loans among the Kenyan commercial banks. Credit administration is the overall management of credit operations in a fiscal institution, including credit origination, monitoring, and collection. It facilitates effective credit monitoring and risk management by providing regular reports on the status of the loan portfolio, identifying loans' problems, and recommending appropriate actions. It can enhance the efficiency of credit operations by streamlining processes and reducing duplication of efforts. Moreover, it helps to maintain accurate records and documentation of credit transactions, which is important for compliance and regulatory purposes. It can however be time-consuming and resource-intensive, particularly for smaller financial institutions that may have limited staff and resources.

Size of the bank can be maximized to expound variations in loan performance of commercial banks in Kenya. Firm size is critical in shaping various dimensions of a enterprise's performance and value. The effects of organization size on the firms' performance could be two ways. Some could indicate negative effects, others suggesting neutral effects, and a few demonstrating positive effects of size on firm performance. Bank size has a pessimistic association with non-performing loans. It leads to a reduction in non-performing loans. The magnitude of a bank significantly influences the financial outcome of commercial banks in Kenya.

The age of bank is critical in providing explanations of the variations in loan performance. It is deemed that the commercial banks that have been in operations for a long term have the experience in dealing and lending to clients. Such banks have developed mechanisms that are instrumental in managing defaults. These banks also are likely to have loyal substantial customer base. Thus, the cases of default in these banks are expected to be low and the interest income are likely to outweigh the costs from non-performing loans. Owing to the large capital base of the established commercial banks, the interest income is also expected to be substantial and significantly contributes to the profits of the company

5.4 Recommendations

The investigation suggested that the commercial banks in Kenya must make process of client appraisal open, accurate and efficient. This ensures that the clients who are eligible get the loans on time. In addition, the process of client appraisal should give room for listed clients to redeem themselves instead of locking them out completely. This can be done by giving risky clients higher interest rates. This recommendation may however be abused by the banks by making the cost of getting loans heavy.

The Kenyan commercial banks should make the process of debt collection efficient, effective and professional. At the point of borrowing, the client should attach any asset to the loan as guarantee. This makes the borrowers more careful when borrower and would make them be keen to repay the loan. In the process of debt collection, the commercial banks should engage the client directly and they should bear the costs in extreme cases.

The commercial banks should make it mandatory for collaterals in cases where a client is borrowing huge amounts of money. In such cases, the commercial banks should ask the borrower the purpose of the loan and then assist the borrower to achieve their desired targets through wise spending. This ensures that the client gets value for money and makes it easier for them to repay when the loan is due.

The commercial banks should make the process of acquiring loan especially large amounts strict but less costly. Due diligence should be observed to ensure the right documentation is in place as well as collaterals where necessary. This reduces the risks of defaults as a result of errors in documents and insufficient client information about the businesses.

The new banks getting into the banking industry or those that are still in the process of establishing should limit the amount of loans they are giving out. They should focus on building their capacity, which would help them in getting enough resources for loaning as well as the capacity to collect the debts from the borrower.

Lastly, the assessment suggested that the commercial banks that are still new in the market should focus on growth in terms of assets and customer base. This would help them in establishing and remaining competitive in the ever-dynamic banking industry. The long-established banks on the other hand should be focused and be innovative every other time to remain competitive.

5.5 Limitations of the Study

This assessment was confined to 38 commercial banks that are indexed Kenya operational as at 31st December, 2022. Furthermore, the study was further limited to the aspects such as client appraisal, debt collection, credit risk mitigation, credit administration, bank size and the age of the banks. The investigation was confined to a descriptive research design, primary data collected using questionnaires and secondary data sourced from fiscal reports of the respective commercial banks.

5.6 Suggestions for Further Studies

The evaluation recommends that further studies be established on credit governance techniques and loan performance of deposit taking SACCOs in Kenya.

The study recommends that further studies be conducted on digital credit access and loan performance of commercial banks in Kenya.

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APPENDICES

Appendix I: List of Commercial Banks as at 31st December, 2022

Name of Commercial Bank	
ABSA	
Access Bank	
ABC	
Bank of Africa Kenya	
Bank of Baroda	
Bank of India	
Citibank N.A Kenya	
Consolidated Bank	

Co-operative Bank	
Credit Bank	
Development Bank	
Diamond Trust	
DIB Bank	
Ecobank	
Equity Bank	
Family Bank	
First Community Bank	
Guaranty Trust Bank	
Guardian Bank	
Gulf African Bank	
Habib Bank A.G Zurich	
I&M Bank	
Kingdom Bank	
KCB Bank Kenya	

Mayfair CIB Bank	
Middle East Bank	
M-Oriental Bank	
National Bank	
NCBA	
Paramount Bank	
Prime Bank	
SBM Bank Kenya	
Sidian Bank Limited	
Spire Bank	
Stanbic Bank Kenya	
Standard Chartered	
UBA Kenya	
Victoria Commercial	

SOURCE: CBK 2022

Appendix II: Questionnaire

Part A: General information of respondents

1. Name of Bank

----

2. Designation

----

3. Years of service in the bank

0-5 [ ]

6-10 [ ]

11-15 [ ]

16+ [ ]

Part B: Specific Questionnaires

Show your level of agreement in the table below by ticking in the column. The ratings range from 1 to 5 as follows:

5: Strongly Agree; 4: Agree; 3: Undecided; 2: Disagree; 1: Strongly Disagree

Client Appraisal	**5**	**4**	**3**	**2**	**1**
We have proper techniques for managing customers repayment history					
Loan is repayment is managed by the expertize					
The highly risky loans are only given with commensurate collateral securities					
There is intense client evaluation before giving out loans					
There are periodic check-balances about credit scoring level					

In your own opinion, how does client appraisal influences loan performance in your bank…………………………………………………………………………………………………

……

Debt Collection	**5**	**4**	**3**	**2**	**1**
We plan adequately for most effective way of collecting debts					
Majority our loans have shorter average collection period					
Our bank experiences a high debtor's turnover					
There are critical debtors collection strategies in our bank					
The repayment schedule is regularly evaluated and monitored					

In your own opinion, how does debt collection influences loan performance in your bank…………………………………………………………………………………………………

………

Credit Risk Mitigation:	**5**	**4**	**3**	**2**	**1**
We have made a provision for bad debts					
We have strategizes to minimize default risk					

There are credit monitoring procedures aimed managing frequency of borrowing					
The risk is well calculated and determined by the bank					
We use insurance as another layer of risk mitigation to minimize the potential losses in case of borrower default.					

In your own opinion, how does credit risk mitigation influences loan performance in your bank……………………………………………………………………………………………

……………………………………………………………………………………………………

Credit Administration	**5**	**4**	**3**	**2**	**1**
Our bank projects the client's repayment pattern					
Our staff is well-informed about the cost of credit and hidden expenditure					

The loan allocation policy is carefully designed to ensure that loans are distributed based on clients' creditworthiness and potential profitability.					
Proper hierarchy is followed when allocating loans as per the policy					
The administration cost is minimized to ensure the bank optimal performance					

In your own opinion, how does credit administration influences loan performance in your bank…………………………………………………………………………………………………

………

Appendix III: Data Collection Instrument

Name of Commercial Bank	Bank Size	Age	Loan Performance
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			