

**BANK CHARACTERISTICS AND FINANCIAL PERFORMANCE OF TIER ONE
COMMERCIAL BANKS IN KENYA**

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DECLARATION

I declare that this research project is my original work and that none of its content has been used for any certificate or award at any educational institution. Therefore, I do make a precaution that none of the contents contained in this document should be used without consulting the owner or the University.

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DEDICATION

This dedication is given in honor of my family, who have provided me with unwavering support and inspiration throughout the course of my studies.

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ABBREVIATIONS AND ACRONYMS

CBK	Central Bank of Kenya
CBR	Central Bank Rate
MFB	Microfinance Bank
MFI	Micro Finance Institution
MPC	Monetary Policy Committee
NPLs	Non-performing loans
NSE	Nairobi Securities Exchange
ROA	Return on Assets
SACCO	Savings and Credit Cooperative Organization
SPSS	Statistical Package for Social Sciences

OPERATIONAL DEFINITION OF TERMS

Bank size	Ownership of assets by banks. It was measured in terms of asset base and customer base.
Bank characteristic	These are the unique features that form a banking establishment and include factors such as size, operation cost, and non-performing loans. It was measured in terms of capital adequacy, bank size, lending interest rate and non-performing loans
Capital adequacy	The statutory minimum reserves of capital which a bank or other financial institution must have available. It was measured in terms of reserves and earnings
Financial performance	Subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. It was measured in terms of Return on Assets (ROA)
Non-performing loan	A loan in which the borrower is default and has not made any scheduled payments of principal or interest for some time. It was measured in terms of credit insurance and debt collection process
Operational cost	Expenses associated with normal business operations on a day-to-day basis. It was

measured in terms of maintenance cost and administration cost.

ABSTRACT

Banks raise loan repayment interest rates to bring in enough money to cover deposit costs as well as other expenses like loan nonpayment. In addition, a significant increase in these interest rates could damage the banks' relationships with their customers. As a result, it is challenging for the managing an account segment to strike a adjust between the two. In light of that situation, the aim of the study was to determine how bank characteristics affect the financial performance of Kenya's top-tier commercial banks. The study's specific goals were to look into how Kenya's tier 1 commercial banks' financial performance was impacted by non-performing loans, bank size, capital sufficiency, and operational costs. The study's direction was provided by the balance score card model, organization theory, trade-off theory, segmented market theory, and liquidity preference theory. Descriptive research methods were used. Kenya's eight Tier 1 commercial banks served as the study's analytical unit. The study's secondary source for data was the banks' audited financial statements. The descriptive data analysis employed means and standard deviations. Additionally, inferential statistics were used to determine the relationship between the variables. The study found that operational cost, bank size, capital adequacy, and non-performing loans all contributed positively to Kenya's tier 1 commercial banks' financial performance. The findings supported the bank's effective operational and administrative cost management strategy. Capital adequacy reduces the risk of bank failure while ensuring the efficiency and soundness of a country's financial system. The high interest rates charged on bank loans meant that many borrowers defaulted on their debts. This had a negative impact on the banks' financial health. In order to reduce operating costs, the study proposed that all tier 1 commercial banks should have effective operating processes and strategic plans. The banks ought to offer items that empower sparing and money related consideration since doing so will increment the banks' capacity to loan cash to speculators, in this manner upgrading their money related execution. The central bank ought to pay extraordinary consideration to the capital ampleness proportion of commercial banks when making monetary laws on liquidity since the objective of monetary direction is to extend banks' capacity to extend liquidity and dissolvability. The Tier 1 commercial banks should reduce their interest rates so that borrowers from all different economic backgrounds can afford them.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The Central Bank of Kenya (CBK) considers interest rates to be one of the major variables affecting a bank's financial performance. Interest rates are erratic and influenced by a variety of factors, which ultimately have an impact on how well the banking industry performs (Corb, 2015). Changing market interest, according to Mang'eli (2017), fundamentally affects business banks' primary concerns. Financial institutions rely heavily on sensitive fluctuations in open market interest rates for bank assets and liabilities, so they need to measure changes in market interest rates more accurately.

Given the importance of the commercial banks' financial performance, there is a great deal of interest in understanding the various factors that influence interest rates and their contribution to performance of the banks because it has a significant impact on the upcoming operational. According to Petersen (2017), many companies consider the keeping money division to be a very important source of financing. Organizational capacities and exercises too increment as monetary execution progresses. In expansion to the trade exercises of companies, the economy of the nation as an entire is influenced, as banks are a major source of financing that facilitates better development of employment opportunities, technological innovation etc.

According to Berend (2016), there are limits to the amount of lending income that commercial banks can generate on how much they can lend to sustain profits within the competitive banking process. Banks' actions to ensure banking system stability are also constrained by prudent lending practices and regulatory requirements. According to Kallberg and Udell (2018), a bank's decision to issue a financial loan depends on many factors related to current conditions, such as interest rates, economic fluctuations, and the borrower's capacity to reimburse loans.

Banks are vulnerable to risks like credit, liquidity, currency, and interest rate risks as a result of the globalized economy. For instance, the Banking Companies Ordinance 1962 governs the banking system in Pakistan. The State Bank of Pakistan, also called the Central Bank of Pakistan, is mindful for managing and overseeing the entire banking industry. Accepting deposits and lending to other economies are the fundamental functions of Pakistani banks. The most important requirement for every economy is for the banking sector to be stable. There are over twenty schedule banks, and they are primarily focused on promoting economic growth. So, only commercial banks can make it possible to manage the financial resources of businessmen by promoting their activities, which is not a simple task.

The banking business around the world plays a major role in the business of financial intermediation and has grown over the years, resulting in the diversity and complexity of its operations. For instance, Jalil and Ali (2019) show that in Malaysia as the sample portfolio's stock count increases, the investment portfolio's SD (unsystematic risk) for Malaysia Stock Market stocks decreases, and so on, until each portfolio is well-diversified. Lee, Ooi and Hooy (2019) observe that in order to achieve the best portfolio diversity, changes in the size of the stock portfolio must be made, and this has a significant impact on the level of data frequency. On the Malaysian stock market, a portfolio may contain both Sharia-compliant and non-Sharia-compliant stocks. Sharia compliant equities also reduce some risk because they call for fewer stocks in a portfolio.

Anil and Yigit (2021) observe that diversification of the loan portfolio, including by function and region, enhances bank stability in India. Research on Indian banks shows that resilience has been improved by diversification. Banks can diversify their credit portfolio by lending to a wider range of companies. Despite the fact that banks typically offer similar financial products to a

number of industries, Purkayastha and Lahiri (2022) assert that the diversification benefits may outweigh the risks associated with industry-specific risk. Alternately, producing advances of various sizes aids in diversifying the loan portfolio. The Indian bond and stock markets are both experiencing strong growth as a result of diversification, which helped them recover from the late 2009 financial crisis.

Obamuyi (2019) notes that the Nigerian financial system is vulnerable to widespread government interventions, low capital, and assets of poor quality. For many years, the Central Bank of Nigeria (CBN), on behalf of the Federal Government of Nigeria (FGN), has implemented a number of reforms to improve the viability and sustainability of Nigeria's deposit money banks (DMBs). To begin with, the monetary segment changes between 2013 and 2019 that include measures to strengthen prudential regulations and address bank distress as well as liberalization-related aspects. Due to the crucial part the DMB plays in the growth of any economy, there is constant evaluation and reform aimed at enhancing performance.

In Sub-Saharan Africa (SSA), commercial banks appear to be very profitable in comparison with banks world over considering that the average Returns on Assets (ROA) are remarkably higher (Flamini, Valentine, McDonald & Liliana, 2019). Kamukama, Kyomuhangi, Akisimire and Orobia (2021) observe that one of the most important technological innovations that was disruptive to the banking sector was the development mobile money transfer service that facilitate monetary transactions and transfers via mobile phones. The money is stored in a mobile wallet from where customers can deposit, withdraw, and transfer to other persons from their handset.

The chronology of banking activities in Ghana has highlighted the development of deposit money banks in Ghana from conventional banking practices of commercial loan granting to

generate interest and intermediation roles of bridging the gap between surplus and deficit units of the economic system (Ophelia, Min, Aliou, Farhana, George, Justice & Philip, 2021). According to Sebu, Bondzie, Ewusie and Tawiah-Mensah (2023) the banking industry has seen a significant level of portfolio diversification as evidenced by disclosures of Deposit Money Banks' (DMBs) financial situations. High percentages of non-performing loans, investments in subsidiaries, foreign currency holdings, quoted investments in private sector financial derivatives, asset size, etc. are all detailed in the financial position statements of these banks. All of these are meant to guarantee that DMBs in Ghana vary their product lines in order to make money

The economy of Kenya depends heavily on Kenyan banking and other financial institutions. Only by appreciating the significance of the banking sector in Kenya can the Kenyan Vision 2030 be realized (Kamau, 2019). Muasya (2020) notes that the banking sector has not performed well in this period of escalating regulations and controls. Due to performance issues, many lower level actors have left the business world and very few have been brought under control. Therefore, a stronger banking sector benefits the economy by encouraging capital accumulation as a source of credit.

Nyabaga and Wepukhulu (2020) observe that commercial banks in Kenya have been identified as one of the priority sectors that would remarkably participate in attainment of Kenya's Vision 2030 since they perform a critical part in enabling and transforming the economy through mobilization of savings. However, dividend payout for Tier I banks in Kenya has remained relatively stagnant over the years even with improved financial performance. Central Bank of Kenya reports show that Kenya's banking sector is very profitable with the average return on asset being about 2.6 per cent for the years between 2016-2021. Mwangi (2022) study on bank characteristics and dividend payout of Tier one commercial banks in Kenya found that liquidity

had negative statistically significant effect on dividend payout while both bank size and profitability had negative statistically insignificant effect on dividend payout.

1.1.1 Bank Characteristics

According to Altunbas, Gambacorta, and Marques-Ibanez (2016), the main distinguishing elements that make up a bank's foundation are its size, structural ownership, board makeup, and age. According to Ani et al. (2018), a bank's estimate is considered the showcase esteem of a speculation, reflecting its resource base, number of branches, and sales volume. The core assets that account for the value of banking entities form the foundation of assets; these assets are not static and may appreciate or depreciate as a result of market forces.

Operating costs are costs associated with how a bank operates as well as the resources it uses to stay open. To have real operating income, the operation costs must be subtracted from the revenue, which can be seen in the bank's income statement (Kiaritha, Gekara). In accordance with Chaddad and Cook (2016), the costs associated with both operating and non-operating activities must be tracked by banks, such as the costs of loan interest. Profitability has an impact on both the bank's earned revenue and operating expenses; higher profits can be made by increasing revenue and reducing operating expenses.

According to Shaheen and Malik (2015), the size of a company is determined by the quantity and variety of the organization's planned assets, as well as its capacity for production. It can also be determined by the quantity and variety of the management services it can provide to clients while maintaining profitability. Babalola (2017) asserts that as a bank gets bigger, its profits might increase as a result of the realization of economies of scale. For instance, a larger bank allows them to spread their settled costs over a bigger resource base, bringing down normal costs. Additionally, Banks may be forced to use specialized inputs like loan officers who are

knowledgeable in a particular industry as a result of the rise in operational costs, enhancing efficiency.

According to Kosmidou (2017), a bank's capital adequacy is determined by the basic percentage loans and investments made by it as a percentage of total assets. Olalekan and Adeyinka (2018) suggest that improved capital adequacy management by banks may raise industry standards and result in improved performance. Capital adequacy has become even more important for banks since the financial crisis and as regulators work to keep the financial system stable.

Non-performing loans included loans that were not profitable and for which there were either no prospects for recovering the full principal amount and interest within a period of at least 90 days or for which the maturity dates had passed with no repayment of the loan dues (Hou. According to Fafack (2018), non-performing loans (NPLs) are exceptionally imperative as they influence the monetary intermediation of commercial banks. This incorporates the most bank's income stream and The overall health of the economy's financial system. NPLs could have a negative effect on Kenyan commercial banks' bottom lines. Understanding the root causes of NPL's is crucial to reduce the likelihood of NPLs entering the Kenyan financial system.

1.1.2 Financial Performance

According to Kenneth (2015) and (Thygerson, 2015), financial performance is "the extent to which a bank, a company, or an organization achieves its objectives through an analysis of its financial practices and strategies. It is also used to monitor financial risk management. According to Moosa and Bhatti (2018), a bank's financial health could ensure of contributors, partners, workforce and a wider economy. This is why financial performance is an organizational imperative that an organization cannot afford to overlook.

Financial performance is a measure of the policies and financial results of a company. It is used to evaluate an organization's long-term financial health. Additionally, it is utilized to evaluate the performance of businesses in the same industry (Vogiazas). Ngumo (2018) argues that profitability is mainly used as a gauge for a financial institution's performance. It is also used to assess how well an organization's management has invested all its capital. Therefore, for the banking industry to be profitable, it must be able to retain negative stuns and keep up solidness within the money related framework.

To eliminate hiccups caused by tax rates and other exceptional items, we measure a company's financial performance in terms of pre-tax earnings, which can vary from company to company and from period to period, and exclude exceptional items can be points for comparison purposes (Schuremo, 2016). According to the CBK Prudential guidelines (2017) commercial banks are required to disclose information on their budgetary execution and net pay. This should reflect total income and expenses and include a quantification of the nature of key income and expenses.

Another way of looking at it is that financial performance is a measure of the financial effect of management choices and changes in an organization's financial position, and the implementation of such decisions by the organizational members (Owoeye). According to Ongore (2015), a firm's monetary execution is significantly affected by its environment; as a result, measures that could accurately reflect a firm's performance are chosen based on the characteristics of the target company.

1.1.3 Relationship between Bank Characteristics and Financial Performance

The bank's attributes, including the firm's size and growth, leverage, liquidity, age, and experience, were identified by Kaguri (2016) as being among the most important factors affecting European bank profitability. Kaguri (2016) asserts that a company's ownership and size

have a significant impact on how well it performs. In a similar vein, Loderer and Waelchli (2019) demonstrate that the firm's age had a higher likelihood of influencing performance because their aging causes a decline in profitability. This resulted from these companies becoming so rigid for a while. Additionally, costs rise, assets become outdated, there is less investment, and there is a decline in research and development as companies get older.

Khani and Sattar (2015) note that people borrow more when interest rates are low because there is little debt repayment. On the other hand, higher interest rates deter people from borrowing because the cost of repayment is still higher. Many consumers can struggle to make ongoing loan payments, especially if interest rates are rising faster than their income. Gilchris (2016) argues that volatile interest rates alienate domestic and foreign investors, thus diverting resources to other areas. moreover, if growth is slower, other macroeconomic factors that are unpredictable may pose serious challenges for commercial banks, lowering their profitability.

According to Ahmed, Rehan, Chhapra, and Supro (2018), advances, loans, and investments may have a favorable effect on a bank's profitability. On the other hand, other banks' interest rates and deposits may have a negative impact. Intense competition forces banks to offer competitive deposit rates to support efficient and effective liquidity management. Khan and Sattar (2014) argue that increasing bank margins is beneficial in order to promote effective and efficient liquidity management. Improving bank margins: According to the authors of Khan and Sattar, (2014). However, it can negatively affect lenders or borrowers. However, rising interest rates increase the cost of capital, which can affect investment. In contrast, lower interest rates also lead to a lower deposit ratio, putting pressure on savings.

According to Okoye and Eze (2013), the monetary policy rate as well as lending significantly affects the deposit money banks in Nigeria. This suggests that these two factors are accurate

indicators of how well banks are performing. The research by Musah, Anokye, and Gakpetor (2018) demonstrates that in Ghana, the profitability of a bank and the rate of interest relationship with one another that is meaningful and positive. This is because privately owned businesses were very concerned during the period when interest rates were higher in Ghana because they could not afford to borrow to increase their productive activities and become more competitive.

According to Musiu (2013), by making it more expensive for borrowers to borrow money, lending interest rates have an effect on the performance of Kenyan commercial banks. The performance will be negatively impacted if the lending interest policy is ineffective and causes an increase in lending interest. Therefore, Kenyan commercial banks should evaluate their clients and set a suitable lending interest rate. According to Kisaka (2017), as the discount rate rises, businesses experience indirect effects as a result of consumer behavior. Therefore, if banks make borrowing very expensive, businesses may decide not to borrow much and end up paying higher interest rates on the loans they do take out.

According to Gaspar (2013), achieving the core organizational goals what matters most is your financial performance. Since shareholders are the company's legal owners and should therefore be given top consideration, maximizing shareholder wealth should be every profit-oriented organization's primary goal. ROA is widely used throughout the history of a bank's financial performance (Agbada and Osuji, 2013). In addition, ROA is largely driven by bank policy decisions and external factors such as economic conditions and government regulations.

1.1.4 Commercial Banks in Kenya

Commercial banks are directed under the Banking Act of 91 of Kenya's Constitution. The Banking Act's main goal is to support and advance sound monetary policies. Kenya currently has 43 commercial banks in operation. In Kenya, projects like businesses and other endeavors rely

heavily on the financing provided by commercial banks. Deposits are accepted at commercial banks, as are advances and loans. They move deposits from sectors with surplus to deficit. By giving admittance to cash-flow to borrowers, business banks are adding to the development of creating economies (Daniel, 2013; Wandela, 2014).

The Kenyan Central Bank's Monetary Policy Committee (MPC) is a determinant of how the loan interest is rated. According to the Central Bank of Kenya's 2018 Monetary Policy Report, the CBK should manage liquidity in order to keep interbank rates at or just slightly below the CBR. Similar to other countries around the world, the CBR is supported as a tool for monetary policy by other offices, such as the level of store and loaning rates, the support administration of money save necessity, clearing exchanges etc.

Banking sector has struggled due to rising inflation, interest rates and currency volatility. In December 2017 it was 18.93%, in March 2016 it was 3.97% and in April 2017 it was 12.05%. The most cause was tall nourishment and fuel costs. The poor performance of shilling based on most world monetary standards exchanged all through the year was ascribed to the euro's paramount obligation emergency, which expanded request for the US dollar and broadened the current account shortage.

1.2 Statement of the Problem

Kenya's commercial banks continue to set interest rates on bank loans made to both corporate and individual borrowers. The primary objective of interest rates is to encourage borrowers to lend to others and to companies (Mwangi 2014). Simiyu (2017) declares that lending rates are increased while deposit rates are decreased by commercial banks, thereby increasing profit margins. Banks cannot offer loans at ultra-low interest rates. However, since it may be challenging to keep up a relationship with the borrowers, these banks are unable to set a higher

loan rate. As a result, the banking industry's main challenge is deciding on an appropriate lending rate.

Due to fluctuations and the monetary policy committee's reliance on the central bank as a resource, lending rates in Kenya have not yet reached the desired stability. In 2016, the average annual lending interest rate was 15 points, or 0.5 percent. In 2019, the average loan interest rate was 17 points 73 percent, 16 points 97 percent, 16 points 86 percent, and 16 points 99 percent, respectively. Lending rates fell by 8%5% in 2019, according to Central Bank of Kenya data from 2016 to 2019. Before taxes, banks earned Ksh. December 2015, Ksh. 89.5 billion, 20.5% higher than December 2016. and from Ksh. In December 2017, it was 107.9 billion (up 107.9%). There was Ksh at the end of 2018. 1 Ksh added in 2019 after 125.8 billion. Pre-tax income of \$139.8 billion.

By 2019, the banks' asset growth had decreased slightly from the previous year's 10.1% growth to a rate of 9.1%. Industrial capital levels declined accumulation of losses in the same industry in the same year and an increase in provisions as per the requirements of international accounting standards. By the end of 2019, the main capital ratio had decreased from 17 points 2 percent to 15 points 2 percent in relation to all risk-weighted assets. The analysis of the market share revealed that the medium peer group had experienced a 4 point 1 percent growth rate while Based on market share in 2018, the large vs. small comparison groups decreased by 3% and by 0.9% respectively.

Empirical evidence has captured a relationship between bank characteristics and financial performance of the banking sector. For instance, Nyabaga and Wepukhulu (2020) investigated the effect of firm characteristics on financial performance of listed commercial banks in Kenya and results indicated liquidity had negative statistically significant effect on dividend payout

while both bank size and profitability had negative statistically insignificant effect on dividend payout. However, the study presents a conceptual gap as it focused on liquidity and dividend payout. Murithi (2019) examined bank characteristics and financial performance of lower tier commercial banks in Kenya and the findings indicated that there was a strong positive and significant relationship between bank size and ROE. However, the study presents a contextual gap as it focused on lower tier commercial banks. Esther and Joseph (2020) examined bank characteristics and loan performance of commercial banks in Kenya and found that bank size had significant effect on loan performance of commercial banks. However, the study presents a conceptual gap as it focused on loan performance of commercial banks. Therefore, this study sought to investigate the effect of bank characteristics on financial performance of commercial banks in Nairobi City County, Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

To investigate the effect of bank characteristics on financial performance of tier 1 commercial banks in Kenya.

1.3.2 Specific Objectives

This study was guided by the following specific objectives;

- i. To examine the effect of operational cost on financial performance of Commercial Banks in Kenya.
- ii. To establish the effect of bank size on financial performance of Commercial Banks in Kenya.
- iii. To identify the effect of capital adequacy on financial performance of Commercial Banks in Kenya.

- iv. To find out the effect of non-performing loan on financial performance of Commercial Banks in Kenya

1.4 Research Hypotheses

This study was based on the following research hypotheses;

- H0₁:** Operational cost has no significant effect on the financial performance of Kenya's tier one commercial banks.
- H0₂:** Bank size has no significant effect on the financial performance of Kenya's tier one commercial banks.
- H0₃:** Capital adequacy has no significant effect on the financial performance of Kenya's tier one commercial banks.
- H0₄:** Non-performing loans have no significant effect on the financial performance of Kenya's tier one commercial banks.

1.5 Significance of the Study

For all parties involved in the Kenyan banking industry, the results would be crucial. For instance, the management of the bank will have a better chance of receiving the right information to direct them in redesigning the business for better operations that would ensure better performance. The CBK, which is in charge of supervising commercial banks, would achieve in standing a better place in making the necessary adjustments to its policies in light of the findings in order to manage the banking industry's regulations effectively while also maintaining its profitability.

The government could then introduce new legislation that would help improve the make-up and features of these institutions in order to maintain the commercial banks' existence and growth. The reason for this is because the structuring of banks is largely government by the government

regulation, which has a significant impact on both their viability and performance. Additionally, the research would highlight any gaps that other academics might be eager to fill.

1.6 Scope of the Study

The eight top-tier Kenyan commercial banks that were the subject of the study (see appendix 11). Operational costs, bank size, capital adequacy, non-performing loans, and return on equity will all be used as indicators of a bank's financial performance. Information was gathered using a data collection sheet from secondary sources. Data on these commercial banks' performance over the previous five years from the years 2018 to 2022 was gathered since this is the period banks have been subjected to many reforms.

1.7 Limitations of the Study

Due to their concern that they might become victims, the respondents were reluctant to disclose information about what the study aimed to accomplish. However, this was settled by guaranteeing the respondents of total privacy. Another obstacle to concentrating a larger population might be a lack of adequate funding. However, a census approach was used to ensure better respondent representation. The study participants might also have a busy schedule that prevents them from filling out the questionnaires due to their busy schedules. Giving the respondents enough timeframe, however, helped to mitigate this.

1.8 Organization of the Study

There are five chapters to this research project. The first chapter talks about the study's history, problems statement, goals, questions, importance, scope, limitations, and structure. Chapter two provides a theoretical overview, an empirical review, and a conceptual framework whereas, the methodology to be followed is all covered in chapter three, whereas. Chapter 4 focuses on the study's findings and discussion. However, this was minimized by giving the respondents enough

timeframe. The 5th Chapter presents; conclusions, recommendations, and recommendations for future work are all included.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section centers around a survey of theories that will be utilized to coordinate the review, earlier research that has been done in relation to the study variables, a summary of these studies along with their limitations, and a conceptual framework.

2.2 Theoretical Review

2.2.1 Balance Scorecard Model

In the year 1996, Kaplan and Norton established this model which explains how organizations performs that links organizational daily tasks to strategies. Using the company's goals as a foundation, the model provides a comprehensive view of business. According to Kaplan and Norton (1996), the concept of the model offers a powerful method of turning a company's strategy and vision into a tool of communicating the main targets and directing the implementation against the set main goals. The model is also a management framework that enables an organization's strategy in conjunction with its vision, which must be established and assessed through actions.

The balance score card, according to Malina and Selto (2015), enables the integration of measures into operations by examining the firm's strategic vision from the perspectives of internal business processes, learning and innovation, customers, and finance. According to Atkinson, Kaplan, Matsumura, and Young (2012), while individual financial measurements are very important, they may not always provide performance guidance for value creation. According to Maher (2015), companies historically relied heavily on financial performance measurement when evaluating employees.

The balanced scorecard (BSC) gives a proper integration of financial elements and non-financial elements of an organization. It also provides top managers with a thorough framework that helps them translate the organization's strategic goals into understandable performance sets of measures, enabling them to improve the company's performance through easier quantification and employee motivation for improvement. This model backs up the model of financial performance.

2.2.2 Organization Theory

Baumann and Kaen's theory, first published in 2003, explains the relationship between the age and size of the company and its performance. The size and performance of the company are affected by vertical integration, sunk costs in the industry, and industry performance in general. Larger businesses are more efficient because they have access to more departments, skilled workers, and a variety of management levels and hierarchies. Additionally, bureaucracies are more common in large firms than in small ones because of centralized management formalizations and controls.

According to Miller and Chen (2014), the correlation between inertia and the age and size of the company. In their view, is the capacity to adjust to change slowly or inadequately. Older companies have more experience and have benefited from the learning curve. According to Penrose (2013), due to the size of the market, large companies can take advantage of economies of scale and perform better. This theory, according to Baumann and Kaen (2003), predicts some growth in agency costs and average transaction costs, which will counterbalance increased economies of scale. This is supported by the costs of transactions, management margins, and agencies. This means that scale, transaction costs, and agency costs may be related to firm size

and profitability within particular industries and within the general institutional environment. This theory backs up the bank size variable.

2.2.3 Trade off Theory

According to the trade-off theory developed by DeAngelo and Masulis in 1980, Each source of funding has costs and returns that correlate to the company's earnings potential and risk of business and bankruptcy. In other words, the cost of financial hardship and the benefits of tax deductions are mutually exclusive, meaning that companies with higher tax incentives take on more debt in order to fund their business. DeAngelo and Masulis (1980) indicate that firm financing decisions made using trade-off theory influence firm characteristics. A company's cash flow can be adversely affected by excess debt. This is due to the fact that a sizable portion of it will go toward paying off debt that already exists as well as interest expenses. Lack of cash flow to invest in current business opportunities could negatively affect the company's performance.

Gaud et al., (2005), focus on firm size. They argue that large companies carry more debt because they are smaller, more stable, and have lower cash flows. They also have a better opportunity to reap the benefits of economies of scale that occur once the security is disclosed to the market. However, excessive leverage can be very costly for firms during recessions when firms struggle to generate sufficient cash flow to service their debt (Mostafa and Boregowda, 2014). A company's limited cash flow may prevent it from expanding its business and result in sluggish performance. A small business may not be able to take on further debt because it lacks sufficient collateral for its large liability. The trade-off theory relevant to this study because it explains why companies under target are more leveraged and those above target have a lesser probability. Furthermore, it is argued that when marginal tax rates are high, businesses are more likely to lend because their interest costs are tax deductible.

2.2.4 Segmented Market Theory

According to the segmented market theory put forward by Dickens and Lang in 1988, an investor's particular investment preferences are ultimately determined by the characteristics of the liability. The notion that bonds with different maturities are not interchangeable is a fundamental tenet of segmented market theory. Long-term loans are preferred by some borrowers and lenders, whereas short-term loans are preferred by others. An additional finding of Dickens and Lang (1988) is that only specific maturities affect investors and borrowers. Interest rates are set independently in individual markets across various maturities and do not affect other credit market segments.

The conceptual structure, the credit market is divided, diverse, and fragmented. Therefore, without taking into account the expected yields of other bonds with different maturities, the determinant of interest rates is by supply together with demand for specific bonds with a given maturity (Mishkin, 1999). According to this theory, investors choose the security of short-term bonds because they are risk averse. This explains why the yield curve slopes upward most of the time. Because short-term bonds are more popular with investors than long-term bonds. However, However, it does not explain the "why" of ultra-low interest rates the yield curve to rise and extremely high interest rates cause the yield curve to fall. Furthermore, it does not explain why interest rates typically fluctuate in parallel over time.

2.2.5 Liquidity Preference Theory

Liquidity preference theory was first introduced by Maynard Keynes in his 1936 book *The General Theory*. The basic tenet of this theory is that he has three purposes for holding money: trading, prevention, and speculation. This is because you can't predict interest rates, fund your spending, or do other financial planning without knowing how the future will ultimately pan out.

All other variables being equal, according to Keynes, the preference of individuals is holding cash. Lekachman and Keynes (1964), note that receiving interest was the theoretical reward for giving up liquidity. According to theory, supply as well as the demand changes of money also affects interest rates. This theory states that there exists a certain interest rate, known as the equilibrium interest rate, that exists when the amounts requested and offered are equal.

2.3 Empirical Review

2.3.1 Capital Adequacy and Financial Performance of Commercial Banks.

Umoru et al (2016), Empirical Research on the Impact of Capital Allocation on the Financial Health of Nigerian Banks which examined the threshold at which capital adequacy becomes influential in the financial health of banks in Nigeria using 2007 to 2015. The money deposited had not been entirely guaranteed, it was found. As a result, the deposit money banks were unable to fulfill their obligations and take on the associated risks. Even so, the current study used secondary data rather than primary data.

The financial performance of the NSE's listed companies was examined by Otwani, Simiyu, and Makokha (2017) to determine how capital adequacy affects it. The mixed methodology design that was used took into account both the qualitative and quantitative data. Using the interview schedules and questionnaires, primary data was gathered. It was deliberate in selecting the respondents. The data analysis employed descriptive analysis as well as inferential statistics. The financial performance of these businesses was significantly impacted by capitalization.

Mutumira (2019) investigated the connection between insurance companies' capitalization and financial performance. The study used a research study design. Fifty-four insurers, selected based on the Census methodology, were licensed to operate in Kenya between 2014 and 2018. In the study, There was a significant relationship between the insurer's financial performance and

its capitalization. However, employing a survey design raises concerns regarding the results' validity and reliability.

Nyanyuki and Onwonga conducted a 2022 study on the correlation between the adequacy of banks' capital and their financial performance in Kenya's commercial banks. A correlation study was conducted. A sample of 43 selected Kenyan commercial banks were included in the sample. The study was based on secondary information from bank's official annual accounts covering the years 2015 to 2019. According to this report, the relationship between Kenyan commercial banks' financial performance and their market cap is low. However, the survey data covers the years 2015 to 2019

2.3.2 Bank Size and Financial Performance of Commercial Banks.

The main focus of Gatete's (2015) study on profitability and bank size was on the 43 Kenyan commercial banks included in the sample. The data were compiled using the official, audited annual financial statements of the bank. The study utilized the data's regression analysis. The study's findings demonstrated that commercial banks now have the capability of monetizing their assets. The size of the bank affected its productivity. Although the exploratory research approach uses a small sample size, generalization is not possible.

Mwangi (2018) conducted a recent study that looked at how the size of banks affected the financial health of Kenya's commercial banks. The analysis used a disproportionately large sample of all commercial banks across the country over a 10-year period (2007 to 2016). Regression analysis was used to compare the economic performance of banks based on their size. A strong correlation linking the two variables was observed. Moreover, as the bank's size increases, so does its profitability. However, the results are based on a reasonable sample and are not sufficient to test hypotheses or extrapolate from the results.

Muhindi and Ngaba looked at the connection between a bank's size and its financial success in their 2018 study. Large, medium, and small banks made up the total sample of 42 banks. The data came from five years' worth of audited financial records from the sampled banks, from 2012 to 2016. Descriptive statistics were analyzed, and it was found that the larger banks performed financially better than the smaller ones. Despite using a survey design, there are issues with the completeness and accuracy of the results.

The study by Appah and Tebepah (2021) set out to look into how the size of a bank affected its ability to make money and perform financially. The Nigerian Stock Exchange was the study population. These banks were sampled using an easy random sampling technique. Secondary data were examined using statistical methods for descriptive and inferential analysis. The correlation between the size of deposit banks in Nigeria and ROA was statistically significant. However, the focus of the investigation was on depository banks in Nigeria.

2.3.3 Operational Cost and Financial Performance of Commercial Banks.

Kiaritha (2014), Gekara (2014), and Mung'atu (2014) used a descriptive study design to evaluate SACCO's financial performance. The target population included SACCO selected using a stratification method and respondents were selected using a conventional random sampling method. SACCO's operational cost control procedures have proven to be very successful. Specifically, research indicated that staff agreed that the biggest costs were related to salaries, rent, and interest rates charged on SACCO members' deposits.

A study on the impact of cost efficiency on the financial performance of listed companies was conducted by Kinyugo (2014) at the Nairobi Stock Exchange. All banks listed in the NSE made up the study population and a census of these banks was conducted. In short, asset management showed how effectively management used the company's assets to generate sales within a given

time frame. The results show that efficiency and return on investment are positively correlated. However, cost-effectiveness alone does not affect financial performance, so other factors must be added

Muriithi (2017) says that administrative costs affect how professional pensions schemes in Kenya do financially., which focused on secondary data from 2007 to 2009 for 164 pension plans. Assets, investment returns, investment costs, administrative costs, and other costs were the operating cost measures. Through the use of a stratified technique, a sample of 329 pension plans was obtained. The correlation between financial performance and the cost of administration and investment management was also negative.

The relationship between Pt's financial performance and operating expenses was examined in Sinta, Kembaren, and Fadli's study from 2021. The author is Jaya Gotong Royong. The methodology for the study was quantitative data. Despite the fact that the data used was auxiliary. Data analysis for this study used simple linear regression analysis to gain a complete picture of how fluctuating operating costs impact financial performance. PT was discovered through research. Gotong Royong Jaya's financial performance is highly dependent on operating expenses.

2.3.4 Non-performing Loan and Financial Performance of Commercial Banks.

Researchers Wangai, Bosire, and Gathogo (2014) studied how the financial stability of microfinance institutions in Nakuru County was impacted by non-performing loans. 66 workers from the credit and management department made up the study population. Using the census method, all of the institutions were investigated. In order to collect the data, questionnaires were used. Financial success was found to be significantly impacted by credit risk. However, Kenyan microfinance banks were the main focus of the study.

Kitonyi (2019) on the impact of non-performing loans on the financial health of Kenyan Microfinance Institutions. Cross-sectional dataset covering the years 2013 through 2017 was used. In order to form a sample, a census method was used to focus on the four MFIs that were granted a license to operate in Kenya. Despite loans being the main source of income, it was found that non-performing loans had significantly impacted the MFI's financial performance in a number of ways. But in this case study, a strategy known as purposive sampling was used.

A 2019 study on the financial performance of commercial banks in Nigeria from 1985 to 2016 was conducted by Gabriel, Victor and Innocent using multiple regression techniques. The study looked at data from various statistical bulletins published by the NDIC and the CBN between 1985 and 2019. The study's findings indicate that the commercial return on assets (ROA) statistically influenced by the CRR and NPL/LT ratio. These findings suggest that high non-performing loans (NPLs) would have a detrimental impact on the bottom line of a commercial bank. However, the review focused on business banks specifically between 1985 and 2016 in Nigeria.

2.4 Summary and Knowledge Gap

Regarding the study variables, the reviewed studies demonstrate that they were conducted by a variety of academics and it can be inferred from the observation that there is still a contextual gap when taking into account the fact that many of the studies concentrated heavily on the international context while others concentrated more on the regional context. Additionally, these studies employed various methodologies, necessitating the use of different ones to establish the relationship. Table 2.1 lists these studies in summary along with the gaps they each have.

Table 2.1: Summary and Knowledge Gaps

Name	Study focus	Results	Gap	Current study focus
Kinyugo (2014)	Companies that List on the Nairobi Stock Exchange's Financial Performance in Relation to Cost Effectiveness	The management of the assets indicated how effective management used the company's resources to produce revenue within a specific timeframe.	Cost effectiveness alone does not affect financial performance, necessitating the consideration of other variables.	The current study concentrated on additional elements that affect financial performance in addition to cost effectiveness.
Muriithi (2017)	Operating costs on financial performance	Financial performance was inversely correlated with administrative and investment management expenditures.	The study's setting was Kenya's Occupational Pension Schemes.	Kenya's Nairobi City County's commercial banks served as the study's context.
Mwangi (2018)	Bank size and financial performance	The growth in bank size was accompanied by an improvement in financial performance.	Results from convenience sampling not suitable for testing hypotheses or generalizing findings	A census was applied
Chege <i>et al.</i> (2018)	The non-performing loans management practice effect on Kenyan banks	Performance of banks was influenced favorably by the credit risk analysis.	Primary data used which allowed the researcher to compile current data.	The study used secondary data, some of which may have been outdated.
Kitonyi (2019)	Non-performing loans and financial performance	Despite loans being the main asset for generating revenue, non-	Was a case study that used purposive sampling conducted?	A census was applied

		performing loans.		
Appah and Tebepah (2021)	Bank size and financial performance	A statistically significant association	Deposit Money Banks in Nigeria	Tier 1 commercial banks in Kenya

Source: Researcher (2022)

2.5 Conceptual Framework

Kivunja (2018) observe that a conceptual framework explains the connections between the variables being studied. Therefore, the link between the variables under study is presented as follows

Independent Variables

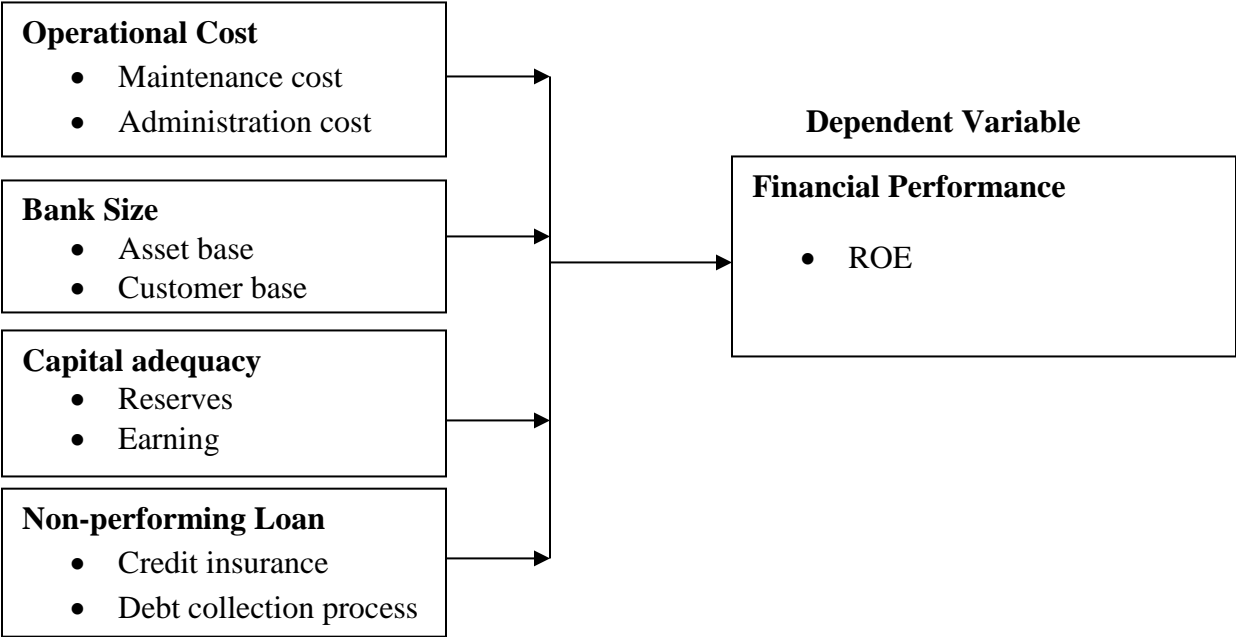


Figure 2.1: Conceptual Framework

Source: Researcher (2020)

Figure 2.1 shows the relationship between variables whereby the independent variables include; operational cost, bank size, capital adequacy and non-performing loan. The dependent variable is financial performance.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The study's design, population, sampling methods, tools, pre-test, data collection process, analysis method, and ethical considerations are highlighted in this chapter.

3.2 Research Design

A descriptive research approach was used. According to Orodho (2005), the design is used in introductory and exploratory research to aid in data collection, summarization, presentation, and interpretation in order to make a convincing presentation. On the other hand, the design's purpose, according to Mugenda and Mugenda (2003), is to provide direction and information regarding what will occur. Due to the study's goal of gathering and reporting data exactly as it will be presented from the field without any changes, it complied with these design constraints in that situation.

3.3 Target Population

Mugenda and Mugenda (2003), define population as a group of whole cases that have similar characteristics. that are randomly selected to be studied. The sample size included 8 sampled commercial banks (see appendix II).

3.4 Sampling Design and Sample Size

The aim of carrying out a sample normally gives a description representative set of elements which are obtained from the targeted population (Bryman & Bell, 2015). Therefore, the process of sampling gives a representation of rules and processes that show the manner in which a certain elements are factored within a sample. According to Lohr (2019) The primary objective of a sample is to obtain a number that can represent the whole population for the aim of satisfying the variables being studied. The main purpose of carrying out the process of sampling is to overcome

the difficulties and limitations that could arise when dealing with the whole population. The present study did a census of the banks was done.

3.5 Data Collection Instrument

This investigation relied on secondary data. The source of the data was official published audited accounts of each Tier 1 commercial bank. In addition, the data given by the CBK, NSE and CMA was also sought. The documentary review guide guided the tool that was used in collecting data.

3.6 Data Analysis and Presentation

The study's data were primarily quantitative. Descriptive statistics, such as the mean and standard deviation, were therefore utilized. The analysis's results were presented using the tables. The SPSS was utilized for this purpose. Using inferential statistics like correlation analysis and multiple regressions, the study determined the correlations between the variables. The following is a summary of the results of the multiple regression equation:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Y = Financial performance

X_1 = Operational cost

X_2 = Bank size

X_3 = Capital adequacy

X_4 = Non performing loan

$\beta_1, - \beta_4$ = Beta coefficients

ε = error term

Table 3.1: Operationalization and Measurements of Variables

Variable	Type	Operationalizations	Measurements
Financial performance	Dependent	<ul style="list-style-type: none"> • ROE 	Interval scale
Operational cost	Independent	<ul style="list-style-type: none"> • Maintenance cost • Administration cost 	Norminal Scale
Bank size	Independent	<ul style="list-style-type: none"> • Asset base • Customer base 	Norminal Scale
Capital adequacy	Independent	<ul style="list-style-type: none"> • Reserves • Earning 	Norminal Scale
Non-performing Loan	Independent	<ul style="list-style-type: none"> • Credit insurance • Debt collection process 	Norminal Scale

Source: Researcher, (2022)

3.7 Diagnostic Tests

3.7.1 Autocorrelation Tests

Autocorrelation is the degree of correlating a number of observations of data linking values of similar variables. On the basis of data in time series in which appearance of observation at different points in a certain timeframe, autocorrelation becomes debatable. But in cross-sectional data occurrence of autocorrelation can be if the results have some relationship in a certain manner (White, 1992). Residual from regressions on the basis of autocorrelation could occur within regression analysis in case there is poor definition of the model. The most commonly autocorrelation method used is the Durbin-Watson test. This test gives statistical tests within a range of 0 to 4. If a digit is closer to 2 show less autocorrelation, a digit closer to 0 or 4 gives an implication that there a negative or positive autocorrelation.

3.7.2 Homoscedasticity

Homoscedasticity describes situations where the error term is applied to all single variable values. The homoscedasticity assumption, also known as the equal variances' assumption, states that even though two samples they come from different species, their variations are the same according to Jarque and Bera (1980). The hypothesis of equal variances, which assumes that the data are homoscedastic, is also used in linear regression, according to Jarque and Bera (1980). The use the Levene test to make sure that the variances for all samples are the same, will be used to evaluate homoscedasticity in this investigation.

3.7.3 Multi-collinearity

Multicollinearity is a point in which a multiple regression model representing more than two independent variables are strongly related. For instance, a correlation of 1 or -1 representing 2 variables shows a perfect multicollinearity (Alin, 2010). The VIF describes correlation by linking the occurrence of explanatory variables to it. The initial value of VIF is 1 and there is no upper limit. A value that is between 1 and 5 is considered a medium association and if the value is 5 symbolizes a multicollinearity critical level in which coefficients are wrongly determined and appearance of unpredictable p-values.

3.7.4 Normality Tests

Measures that aim to ascertain the amount of information that is displayed by a typical dissemination and how the process is subject to being computed routinely for the random variables, chiefly the acquired information as observed by Jarque and Bera (2014). The normality test statistic of the Shapiro-Wilk test is the square of the correlation coefficient of the Pearson sample calculated from the sorted points. The smaller statistical tests values indicate that there is no holding of normality principle. When the values of the statistical tests are very high,

the null hypothesis becomes homogeneous. The p-value is calculated using the R value. For more modest p-values, the excusal of the invalid hypothesis.

3.8 Ethical Consideration

The researcher was required to clearly inform respondents of the purpose of the study and invite them to participate. The researcher was granted a research authorisation by NACOSTI. Respondents were convinced to take part in the study and given assurance that the responses would be kept confidential.

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

The information was gathered from secondary sources and taken directly from each tier commercial bank's officially disclosed audited financial accounts for the years 2018 through 2022. Descriptive analysis and inferential statistics were used for data analysis.

4.2 Descriptive Analysis Results

The study's conclusions were based on the data analysis that produced the mean, standard deviation, maximum, and minimum values. The study data's variability or dispersion away from the midpoint was shown by the standard deviation, and the study variable's middle was shown by the mean. The highest and lowest numbers were found using the maximum and minimum, respectively. The outcomes are displayed as follows:

4.2.1 Operational Cost

Table 4.1: Operational Cost

	Maximum	Minimum	Mean	Standard deviation
Operational cost	2.38	0.02	15.48	3.59
Operational cost	5.67	0.09	12.41	4.68

Source: Survey Data (2022)

Operational costs and operational costs had respective means. The minimum value for operational costs (maintenance costs) and operational costs was 0.023 and 0.087, respectively. Operational costs and operational costs each reached their maximum values at 2.384 and 5.673, respectively. This demonstrates that the banks have generated profits after paying for operating and maintenance costs. Banks may be able to partially finance their ongoing operations as well as particular account features through these monthly fees. This result is consistent with a study

by Muriithi (2017) that looked at how costs associated with operations affected the financial performance and revealed that these costs were strongly associated with financial performance.

4.2.2 Bank Size

Table 4.2: Bank Size

	Minimum	Maximum	Mean	Standard deviation
Bank size (Asset base)	0.0510	16.150	4.190	2.709
Bank size (Customer base)	0.0210	10.931	3.341	3.751

Source: Survey Data (2022)

The average bank size (asset base) and bank size (customer base) were 4.190 and 3.341 respectively, standard deviation 2.709, 3.751 respectively. The minimum values for bank size (asset-based) and bank size (customer-based) were 0.0510 and 0.0210, respectively. The maximum values for bank size (asset base) and bank size (customer base) were 16,150 and 10,931 respectively. This suggests that there is a high degree of market concentration in Kenya's banking sector. These banks also serve a sizable consumer base. Therefore, the asset base and clientele of Tier 1 banks in Kenya have a beneficial impact on their financial performance. The results are in line with Muhindi and Ngaba's (2018) study, which looked at how business size affected banks' financial performance in Kenyan commercial banks. According to the descriptive analysis of these variables by bank size, large banks outperform small and medium banks, which accounts for their higher profitability performance.

4.2.3 Capital Adequacy

Table 4.3: Capital Adequacy

	Minimum	Maximum	Mean	Standard deviation
Capital adequacy (Reserves)	0.081	9.842	2.964	1.821
Capital adequacy (Earnings)	0.046	10.118	3.841	2.147

Source: Survey Data (2022)

The minimum values for capitalization (reserves) and capitalization (income) were 0.081 and 0.046 respectively. Capitalization (reserves) and capitalization (earnings) peaked at 9.842 and 10.118 respectively. This indicated that banks needed high reserves to be able to pay back loans in the event of uncertainty. Also, the finding shows that the Banks had generated a vast majority of profit through interest rates and fees. In addition, the banks had reported a high income rate on income tax statement in favor of operating earnings excluding other losses that might have occurred from non-performing loans. The outcomes are in accordance with those of Muriithi (2017), who saw what running costs meant for the monetary exhibition of Kenya's word related annuity plans. It was discovered that management of investments was negatively associated with financial performance.

4.2.4 Non-performing Loans

Table 4.4: Non-performing loans

	Minimum	Maximum	Mean	Standard deviation
Non-performing loans (Credit insurance)	0.046	7.821	1.287	0.916
Non-performing loans (Debt collection process)	0.071	11.631	4.374	2.674

Source: Survey Data (2022)

Non-performing loans (Debt collection process) averaged 7.821, and the standard deviation was 1.287. The minimum credit insurance premium is 0.046. The maximum credit insurance premium is 1.071. The average credit insurance premium is 11,631. The finding shows that the banks had a sound credit insurance that could enable them to pay off existing debts resulting from emergencies. The results also demonstrate that the banks had strong debt collection practices that reduced non-performing loans to a minimum. Chege and Olweny (2018) study revealed that credit insurance improves Kenyan commercial banks' financial standing.

4.2.5 Financial Performance

Table 4.5: Non-performing loans

	Minimum	Maximum	Mean	Standard deviation
Financial performance (ROE)	0.0912	9.715	10.932	4.267

Source: Survey Data (2022)

The ROE variable's deviation from its primary value was a minimum of 0.0912 to a maximum of 9.715 points. The ROE's standard deviation was 4.267 and its mean was 10.932. This suggests that equity stockholders received a solid return from the banks. The banks also had generated good benefits for its shareholders beyond earnings. As a result, this may assist investors in comparing the outcomes of various equity investments and influence their subsequent investment strategy. According to Ongore (2015) financial performance substantially dependent on the organizational context; as a result, the measures used to assess the performance of a certain organization are chosen in accordance with those conditions.

4.3 Inferential Statistics Results

4.3.1 Correlation Analysis

Table 4.6: Correlation Analysis

	Operational cost	Bank size	Capital adequacy	Non-performing loans	Financial performance
Operational cost	1				
Bank size	.2398	1			
Capital adequacy	.4388	.2178	1		
Non-performing loans	.36748	.492**8	.303**8		
Financial performance	.815**8	.764**8	.757**8	.124**8	1

Source: Survey Data (2022)

Table 4.6 shows the r-value (Pearson r-value) for operating costs vs. financial performance at 0.815 and the significance value (Pearson significance) at 0.001 (below 0.05). What this means is that operating costs are closely linked to financial performance. Kinyugo (2014), study which examined how cost efficiency affected the financial performance. The study hypothesizes that resources is the board's measurement of how well executives are using the organization's resources to do business over a period of time. The Pearson r-value for bank sizes was 0.764 and the significance level for financial performance was less than 0.000 or 0.05. This suggests that the bank's size had a significant effect on its profitability. This result is consistent with her

Mwangi (2018) study that discovered that Kenya's commercial banks' financial capacity is enhanced by bank size.

The Pearson r-value for capital adequacy to financial performance is 0.757 and has a significance value of 0.002 (below 0.05). As a result, capitalization plays a major role in a company's financial performance. Otwani, Simiyu, and Makokha (2017) study that examined how capitalization affected financial performance and found a significant influence between the variables. Therefore, this implied that a firm is better placed if it possess a stronger capital base for it to stay ahead of its competitors and increase its customer base.

Pearson's r-value for non-performing loans was 0.124 with significance level 0.335 (more than 0.05). This suggests that terrible credits didn't physically affect working outcomes, which is in line with his Kitonyi (2019) research on the link between financial health and non-performing loans of Kenyan microfinance institutions. A significant influence of non-performing loan was established on MFIs' financial performance.

4.4 Diagnostics Tests Results

Diagnostic tests were employed to address the several types of bias that could appear in studies trying to evaluate the precision of diagnostic procedures (Feinstein, 2019). To determine whether the linear regression analysis's assumptions were met, the study performed a number of diagnostic tests. The diagnostics tests used by the study included; Homoscedasticity, Multicollinearity, Normality tests and Autocorrelation. These are discussed as follows:

4.4.1 Homoscedasticity Test

To check if the variance around the regression line was consistent across all predictor variable values, the homoscedasticity test was conducted. This was accomplished by computing a Lavene test using the one-way ANOVA method.

Table 4.7: Homoscedasticity Test

Variable	Levene Statistic	Sig.
Operational costs	0.701	0.612
Bank size	0.637	0.405
Capital adequacy	0.806	0.274
Non-performing loans	0.791	0.361
Financial performance	0.803	0.245

Source: Survey Data (2022)

Each variable's significance level was significantly higher than the indicated error margin of 0.05, indicating that the test was not significant and that an equal variance may be assumed. Additionally, none of the variables' Levene statistics values were significant, as shown in Table 4.7, which prevented the study from rejecting the null hypothesis. The homogeneity of variance assumptions were found to be true, and homoscedasticity was not present.

4.4.2 Multicollinearity Test

Table 4.8: Multicollinearity Test

Variable	Collinearity Tests	
	Tolerance	VIF
Operational costs	0.531	2.374
Bank size	0.784	1.745
Capital adequacy	0.863	1.610
Non-performing loans	0.647	1.211

Source: Survey Data (2022)

Table 4.8 findings demonstrate that the operational costs had VIF value of 2.374 which was greater than 10, bank size (VIF=1.745<10), capital adequacy (VIF=0.863<10) and non-performing loans (VIF=1.610<10). Because each independent variable had a VIF value below 10, it was concluded that the multicollinearity test could not affect any of them.

4.4.3 Normality Test

Table 4.9: Normality Test

Variable	Shapiro	
	Statistic	Sig.
Operational costs	0.703	0.347
Bank size	0.637	0.423
Capital adequacy	0.823	0.219
Non-performing loans	0.794	0.287
Financial performance	0.809	0.531

Source: Survey Data (2022)

Table 4.9 shows the statistical significance values for operational cost (0.703), bank size (0.637), capital adequacy (0.823), non-performing loan (0.794) and financial performance (0.809). The significance value of each variable was greater than a threshold of 0.05 indicating an even distribution of data.

4.4.4 Autocorrelation Test

The presence of autocorrelation suggests that the empirical models' error components are not completely independent of one another.

Table 4.10: Autocorrelation Test

Variable	Durbin Watson
Operational costs	3.405
Bank size	2.096
Capital adequacy	1.745
Non-performing loans	4.094
Financial performance	2.910

Source: Survey Data (2022)

Table 4.10 shows that the values for Durbin Watson ranged between 1.745 and 4.094; according to Garson (2012), Durbin Watson statistics range from 0 to 4; close to 2 (1.5 to 2.5) indicates

independent observations; and close to 0 or four (correspondingly) indicating stronger positive or negative autocorrelation. Therefore, Garson's (2012) recommendations led to the conclusion that the model's residuals are not autocorrelated, allowing inferential statistics to be applied to the study's data.

4.5 Regression Analysis

The following information summarizes the findings of a regression study that aimed to determine how much the independent variables influenced the dependent.

Table 4.11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.709	.812	.804	0.418

Source: Survey Data (2022)

The value of R was 0.709, closer to 1 than the model summary results. This means that the independent and dependent variables were strongly related. The R-squared value was 0.812, approaching 1. This means that the explanatory variability of the model's variability was increased by the model. An R-squared of 0.804 shows that Kenya's top commercial banks' financial performance changed by 80.4% due to operating costs, bank size, capital adequacy, and non-performing loans. In addition, there's a 19.6% margin for other unknown variables.

Table 4.12: Analysis of Variance

Model		Sum of Square	df	Mean Square	F	Sig.
1	Regression	208.0170	4	52.004	71.117	.001
	Residual	5.850	8	.731		
	Total	213.1070				

Source: Survey Data (2022)

Since the F statistical value was 71.117, which was higher than the statistical mean value of 52.004, Table 4.12 shows the model to be statistically significant. The significance level (0.000) was also below the significance value (0.05).

Table 4.13: Coefficients

Model		Unstandardized Coefficient		Standardized Coefficient	t	Sig.
		B	Std. Error	Beta		
	Constant value	.6340	.2540		2.4960	.000
	Operational costs	.7630	.1270	3.4180	6.0080	.001
	Bank size	.8090	.3640	4.510	2.2230	.000
	Capital adequacy	.6470	.1190	2.8450	0.6390	.001
	Non-performing loans	-.7900	-.4360	-1.6750	-1.8120	.341

Source: Survey Data (2022)

It is observed that excluding operating costs, bank size, adequate capital and non-performing loans, Kenya's Tier 1 commercial banks have a financial performance of 0.634. According to the operating cost regression coefficient of 0.763, An increase of 1 unit in operating costs will improve a commercial bank's financial performance by 0.763, and an increase of 1 bank expansion unit will improve financial performance of the commercial banks' financial performance in Kenya by 0,809. If the number of bad loans per unit increases by -0,790, the financial performances of the commercial banks in Kenya's Tier 1 will deteriorate by -0,895, but their capital adequacy will improve by 0,895.

The final regression equation is expressed as follows:

Financial performance = 0.634 + 0.763 (Operational cost) + 0.809 (Bank size) + 0.647 (Capital adequacy) - 0.790 (Non-performing loans)

4.6 Discussion of Regression Tests

According to Table 4.13, the t-value for operating costs was 6.008 with a significance level of 0.001. Operating costs have subsequently assumed a positive part in the monetary execution of Kenya's level 1 business banks. This affirms the discoveries of a recent report on the impact of working costs on the monetary execution of SACCO in the financial area in Kenya by Kiaritha and Gekara (2014). According to the results, the employee agreed that salary, rent, city tax, and interest on member deposits were significant expenses for his SACCO. With a t-value of 2.223, with a significance level of less than 0.05 and a 0.00 This recommends that the bank's size altogether affects the monetary strength of Kenya's top business banks. This is predictable with the discoveries of the 2015 Gatete concentrate on the Effect of Bank Size on Productivity in Kenya's Business Banks. 43 nationwide commercial banks were included in this study. The study found that among Kenya's commercial banks, there was a positive correlation between the bank's size and profitability.

$t=0.639$; significance level 0.001 lower than significance value 0.05. This shows that capital essentially affects the monetary strength of Kenya's top business banks. Umoru and Osemwegie (2016) conducted an empirical study on the relationship between Nigerian banks' CAC ratios and financial performance. Research shows that depositors' money in the banking industry is not fully insured. As a result, depository institutions may be unable to meet their obligations and may be at risk.

The t-value is -1,812, and the significance level is 0.341, which is higher than 0.05. This implies that bad loans do not affect the bottom line of Kenya's top commercial banks. This finding is in accordance with the discoveries of a recent report on the effect of non-performing credits on MFI's monetary execution (Wangai, Bosire and Gathogo, 2014).

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section provides a brief outline, concluding remarks, and recommendations for subsequent research.

5.2 Summary

The purpose of this study was to examine the financial condition of Kenya's major commercial banks and how operating costs affected this performance. Operational costs have been found to significantly improve the financial health of Kenya's top tier commercial banks.. With standard deviations of 3 points 592 and 4 points 684, respectively, the average values for Operating Expenses (Maintenance) and Operating Expenses (Administration Expenses) were 15 points 481 and 12 points 413, respectively. The lowest operating cost (management cost) was 0.023, while the highest possible operating cost (maintenance cost) was 2.384, and the maximum possible operating cost (managing cost) was 5.673. This indicates that the bank generated a profit after operating and maintenance charges. These recurring charges enable banks to partly cover the cost of on-going operations and some account features.

The purpose of this study was to determine whether the size of Kenya's tier 1 commercial banks had any effect on their financial performance. It was also found that the bank's size had a substantial and positive effect on T1 CB's profitability in Kenya. The mean and standard deviation of the Bank size (Asset base) and the Bank size (Customer base) were 4.190 and 3.341, respectively. The minimum value for Bank size (Asset base) and the Bank size (Customer base) was at a value of \$0.0510, and was at \$0.0210. The upper limit for the Bank's Asset base and the Bank's size (Customer base) was at 16.150 and 10.931 respectively. This suggests that there is a high degree of market concentration in Kenya's banking sector. These banks also serve a sizable

consumer base. As a result, the Tier 1 banks' asset base and client base in Kenya have a positive effect on their profitability.

The study's objective was to determine whether Kenya's tier 1 commercial banks' financial performance was correlated with the capital adequacy ratio. In addition, the results showed that the level of capital adequacy played a significant role in the performance of Kenyan tier 1 commercial banks. The capital adequacy (reserves) and the capital adequacy (earnings) had mean values of 2.964 and 3.841, with standard deviations of 1.821 and 2.147, respectively. The minimum value for capital adequacy (reserves) and the capital adequacy (earnings) was 0,081, and 0,046 respectively. Maximal capital adequacy (reserves) and the capital adequacy (earnings) was at 9.842 and 10.118 respectively. This was an indication that the banks had high reserve requirement which enabled them to pay back loans in case of uncertainties. Also, the finding shows that the Banks had generated a vast majority of profit through interest rates and fees. In addition, the banks had reported a high income rate on income tax statement in favor of operating earnings excluding other losses that might have occurred from non-performing loans.

The study's goal was to find out how bad loans affected the financial performance of Kenya's top commercial banks. Kenya Tier 1 commercial banks found that bad loans did not significantly affect their overall. The mean and standard deviation for the two categories were 7.821 (Debt collection process vs. Non-performing Loans) and 4.374 (Credit Insurance). The minimum values for the debt collection process and the non-performing loans (credit insurance) were 0.046 and 0.071, respectively. What was the maximum amount for Non-performing Loans (Credit Insurance) and Non-performing Loans (debt collection process) was at 7.821 and 11.631 respectively. The finding shows that the banks had a sound credit insurance that could enable them to pay off existing debts resulting from emergencies.

5.3 Conclusions

The study's conclusion was that the bank had efficient operating and administrative cost management policies in place. Banks pay a lot of money in rent, salaries, and interest on members' deposits. Operating expenses are important for any business because they must maximize the effectiveness of various organizational components, and because this decision impacts a company's ability to how to thrive in an ever-changing and competitive business landscape. If a top tier bank in Kenya can control costs effectively, it will gain a lot of advantages. The study also finds that economic efficiencies have a significant impact.

The study came to the conclusion that larger banks' profits are larger non-interest income includes, but is not limited to, trading commissions and fees. Furthermore, it is demonstrated that large banks maintain a relatively A relatively small portion of their assets are loans, as opposed to, securities, and that a substantial portion of their short-term funding comes from non-deposit or wholesale sources. As a result, both the balance sheet's assets and liabilities show that large banks are relatively active in the capital markets.

The concluded that the capital adequacy reduces the likelihood that banks would go bankrupt, ensuring the performance and stability of the country's financial system. Banks are generally considered safe and well capitalized are more likely to meet their financial obligations. When a loan is provided, a specific portion of the deposits must always be set aside in accordance with capital adequacy ratio requirements. To offset the losses in the event that the loan defaults, these deposits are set aside as reserves. As a result, these clauses restrict how much money can be borrowed against deposits, which thus restricts the ability to create credit. Therefore, changes in the capital adequacy can have a significant effect on the economy's inflation rate.

The study came to the conclusion that customers were unable to repay their loans because of high interest rates on bank loans, this, in turn, negatively impacted the bank's bottom line.. Furthermore, the study reached the conclusion that banks' failure to impose collateral requirements had a negative impact on loan availability, resulting in poor financial performance.

5.4 Recommendations

According to the banks' management, Based on the findings of the study, it is expected that all Tier 1 Banks in Kenya will have clear strategic plans and operational processes in place to control operating costs. Cost-efficiency analysis should be a key consideration for banks when analyzing and managing risks and maximizing profitability. The study suggested that trustees and authorities should keep an eye on and exercise control over the operating costs incurred by the pension plans.

The research recommends that banks provide savings products and financial inclusion products because doing so will increase their lending capacity to investors and improve their financial performance. The shareholders and managers could use expansion tactics like internally produced, capital raising, or mergers and acquisitions in addition to governmental actions aimed at expanding the size of commercial banks.

Because the purpose of financial oversight is to enable banks to improve their capital and liquidity buffers, central banks need to formulate financial regulations on liquidity, paying particular attention to the capital adequacy ratios of commercial banks. Something was suggested. Stringent regulation may benefit bank stability, but is not always beneficial to bank effectiveness. Limiting banks may reduce their efficiency and increase the likelihood of a banking disaster.

According to the study, Tier 1 commercial banks will have to adjust interest rates to amounts that are available to borrowers of different economic levels. In order to make microcredit accessible to more customers at reasonable and affordable prices, assessment fees and the like should be completely eliminated or reduced. The Central Bank of Kenya should develop appropriate formulations of flexible and highly customized repayment schedules to accommodate borrowers' cash flow patterns.

5.5 Suggestions for Further Studies

The regression model showed that 19.6% of the contribution came from variables that were not studied in this study or from other non-studied variables. To fill this gap, the present study proposes that: additional research focusing on those additional factors should be conducted. Additionally, the study focused on Tier 1 commercial banks; consequently, additional studies should focus on other levels of commercial banks.

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APPENDICES

Appendix I: Data Collection Sheet

Year	Operational Cost		Bank size		Capital adequacy		Non-performing loans	
	Maintenance cost	Administration Cost	Asset base	Customer base	Reserves	Earnings	Credit insurance	Debt collection process
2011								
2012								
2013								
2014								
2015								
2016								
2017								
2018								
2019								
2020								

Appendix II: List of Tier 1 Commercial Banks

1. Standard Chartered Bank
2. Stanbic Bank
3. NCBA Bank
4. KCB Bank
5. Equity bank
6. Diamond Trust Bank (DTB)
7. Cooperative Bank
8. Absa Bank Kenya PLC,

Appendix III: Approval Letter



KENYATTA UNIVERSITY
GRADUATE SCHOOL

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NAIROBI, KENYA
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Internal Memo

FROM: Dean, Graduate School

DATE: 26th October, 2022

TO: Geoffrey Nyamari Angima
C/o Accounting and Finance Dept.

REF: D53/OL/CTY/26683/2018

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL

This is to inform you that Graduate School Board at its meeting of 19th October, 2022 approved your Research Project Proposal for the M.B.A Degree Entitled, "**Bank Characteristics and Financial Performance of Tier One Commercial Banks in Kenya**".

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking and progress report Forms per semester. The Forms are available at the University's Website under Graduate School webpage downloads.

Also, please ensure that you publish article(s) from your project before submitting it to Graduate School for examination as per the Commission for University Education and Kenyatta University guidelines.

Thank you.


ANNBELL MWANIKI
FOR: DEAN, GRADUATE SCHOOL






c.c. Chairman, Accounting and Finance.

Supervisors:

1. Dr. Moses Odhiambo Aluoch
C/o Department of Accounting and Finance
Kenyatta University

AM/inn

Appendix IV: Research Permit

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 316577	Date of Issue: 16/November/2022
RESEARCH LICENSE	
	
<p>This is to Certify that Mr., Geoffrey Nyamari Angima of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: Bank characteristics and financial performance of tier One Commercial banks in Kenya for the period ending : 16/November/2023.</p>	
License No: NACOSTI/P/22/22003	
316577 Applicant Identification Number	 Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
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THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013 (Rev. 2014)
Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

CONDITIONS OF THE RESEARCH LICENSE

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to
2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way:
 - i. Endanger national security
 - ii. Adversely affect the lives of Kenyans
 - iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
 - iv. Result in exploitation of intellectual property rights of communities in Kenya
 - v. Adversely affect the environment
 - vi. Adversely affect the rights of communities
 - vii. Endanger public safety and national cohesion
 - viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location and specified period.
4. The license any rights thereunder are non-transferable
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6. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research.
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