

**INVESTMENT STRATEGIES AND FINANCIAL PERFORMANCE OF LISTED
COMMERCIAL BANKS IN KENYA**

BY

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DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

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ABSTRACT

Commercial banks are key drivers of economic growth and development through provision of financial services. In as much as commercial banks have endeavored to optimize returns from investments, data shows that some banks in Kenya are still making very low profit margins from investments while some investment record losses. The general objective of was to establish the nexus between investment strategies and financial performance of listed commercial banks in Kenya. The study had the following specific objectives: to find out the effect of investment properties, government securities, corporate investments and to find out the effect the loans and advances on financial performance of listed commercial banks in Kenya. The study adopted descriptive research design. The study population comprised of all ten listed banks in Kenya. Secondary data was collected from published financial statements and annual reports of the banks for the period 2013-2023. The data was firm-level data and therefore panel data regression was done. The output from data analysis were presented on tables and graphs. The R^2 was 0.639, revealing that 63.9 % of variations in financial performance, proxied by ROA was due to changes in investment strategies, namely investment property, government security, corporate investments and loans and advances. Results showed that investment property had negative insignificant effect on financial performance ($\beta=-0.701$, $p<0.05$), government securities had positive insignificant effect on financial performance ($\beta=0.003$, $p=0.819>0.05$), corporate investments had negative significant effect ($\beta=-0.084$, $p<0.05$), and loans and advances had positive insignificant effect on financial performance of listed commercial banks in Kenya ($\beta=0.013$, $p=0.216>0.05$). The study recommends listed banks to invest more in the core business of advancing loans and advances and also invest in government securities as this had positive effect on financial returns. The Central Bank of Kenya also should provide constant investment strategies in light with current researches in the Kenyan banking sector.

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ACRONYMS AND ABBREVIATIONS

CBK-	Central Bank of Kenya
CMA-	Capital Markets Authority
DTB-	Diamond Trust Bank
FE-	Fixed Effects
GDP-	Gross Domestic Product
I&M-	Investments and Mortgage (Bank)
MPT-	Modern Portfolio Theory
NSE-	Nairobi Securities Exchange
OLS-	Ordinary Least Squares
RBV-	Resource Based View
RE-	Random Effects
REITs-	Real Estate Investments Trusts
ROA-	Return on Assets
ROE-	Return on Equity
VIF-	Variance Inflation Factor

OPERATIONAL DEFINITION OF TERMS

Term	Operational definition
Investments strategy	This is a mechanism used by investors to generate revenue from assets of different kinds (Jan & Robert, 2023)
Financial performance	This is a metric that depict how well resources are used in activities in earning revenue (Prihastomo & Khafid, 2019).
Listed commercial banks	These are commercial banks whose shares are open to the public for sale or purchase at the NSE and is in the register of listed entities (NSE, 2024)
Investment property	These are physical buildings that are for sale or leasing and are also known as real estate property (Maengwe, 2015)
Government securities	These are treasury bonds and bills which are instruments used by government to borrow (CBK, 2024)
Corporate investments	These are those investments in associates or subsidiaries or shares in other companies
Loans and advances	These are credit facilities issued to customers by banks (Harichandana, 2020)

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Financial performance of commercial banks is important in a number of ways. First, commercial banks are key drivers of economic growth and development through provision of financial services to other players in the market. For instance, in China, banking sector significantly contributes to Gross Domestic Product (GDP) (Tan & Walheer, 2024). This evidences that the role of commercial banks is immense, especially through issuance of credit to small and large firms across the entire economy. According to Reschiwati and Ibrahim (2021) banks are connectors between economic units in need of savings platforms and those in deficits. Through this intermediation, banks provide credit to businesses.

In addition, Sholikha (2021) noted that where banks exhibit good financial performance it is an indication that the banks are able to earn profits thus contributing to stability of the entire financial system in a given economy. Therefore, competitive banks have good financial results whilst least competitive have dismal financial performance. Moreover, banks financial performance improves a balance of its assets and liabilities boosting the ability of the entity to sustainably remain in lending activities (Olawale, 2024).

Whilst the financial performance of commercial banks is pivotal, extant literature shows that most banks are not performing well due to a number of reasons. Sharipova and Asadova, (2023) argue that the future of bank's financial performance significantly depends on how robust they deal with disruptions, regulatory dynamics, investment innovativeness, customer services and risks control in a volatile landscape.

Just as it is in other regions of the world, commercial banks in Africa are important even though they face many challenges. In Nigeria, Ogunlusi and Obademi (2021) underscores the importance of making apt and timely adjustments to banks' investment decisions to uphold financial performance and stability. This manifests that there is an intricate play between investments and bank performance. At the same time, there is an ongoing debate on whether investment strategies that relate to diversification are important. For instance, Adesina (2021) opines that bank investments are sound mechanism of lowering risks only of human resource efficiency is put into consideration in absence of which it jeopardizes costs, stability and profits of a bank.

Over the years, the dismal performance of commercial banks in Kenya has been thought to be partly exacerbated by poor investment strategies. Hussein (2017) noted that investment strategies for banks in Kenya entail a risky undertaking which can be costly to banks. Thumbi and Ragui (2019) had the same thoughts that commercial banks in Kenya carry out business in a dynamic environment that has highly turbulent internal and external factors. Moreover, Majengo, et. Al., (2023) view that commercial banks in Kenya are still holding on traditional interest-based investments while other banks out of Africa have since transitioned to non-interest investments such as stock trading for fees and commissions. In respect to these critical issues that seems to answer whether investments strategies better bank's performance, there is a need to study more of the issues. In undertaking this study, more evidence was brought to light in regard to investments strategies and bank's performance, more so from Sub-Saharan Africa.

1.1.1 Investment Strategies

Simply, an investment strategy is a plan of allocating resources to different activities with the aim of attaining a balanced investment portfolio. It entails decisive actions that are influenced by risks and returns of different investments since it seeks to maximize returns. According to Jan and Robert (2023) a sound investment strategy considers return maximization while lowering risks. Therefore, an investment strategy not only allocates resources to different investments but considers returns of the portfolio that is established. Moreover, the technical outcome of investment strategies is formulation of portfolios, which are defined as a collection of assets, investments (Majengo, et al., 2023). The core aim of investment strategy is to diversify risks in returns.

In practice, the key desire for an investment strategy is to lead to formation for a robust portfolio where assets are purchased in respect to their risks and returns (Liudmyla, 2023). Thus, an optimum investment strategy must have a variety of assets that aid in lowering the risk while maximizing returns at the same time. This indicates that for an optimal investment strategy, there must be a trade off between risks and returns in which the asset choices are the best in attaining the desired returns. It is therefore plausible to suffice that investment strategies are not only the means to achieve superior performance but are tactics to realize the best financial returns for each asset individually and collectively. For this reasons, individual and corporate investors formulate strategies and allocate resources that ensure that returns are maximized at any point of risk (Zverev, et al., 2021; Witbooi & Muller, 2021).

In setting up an optimal investment strategy, different profit objectives are placed so that appropriate assets are acquired. Therefore, assets must be allocated with full realization of the expected gains. For example, Nawaz (2017) notes that owing to scarcity of resources, companies put priority to assets that fetch better returns as opposed to seeking higher profits that can lead to major losses if such assets suffer damages. The role of having a sound strategy is to realize utility or value from resources. Resources are key focus in development of a resource allocation strategy or investment strategy because without shortages, allocation would not be an issue. However, due to scarcity of resources, investors are forced to create an allocation mechanism that hedges against future risks (Musile, Aruanno, & Suardi, 2018).

In a broad spectrum, investment strategies are categorized as long term or short-term investment strategies (Arpaci, Aslan, & Kevser, 2024). Long term investment strategies are those tactics that look into the future of resource allocation for over a year. This includes such investments in long term assets such as land and buildings, stocks and hedging assets. On the other hand, short term investment strategies are plans that aid in achievement of long-term investment strategies. For example, a company can endeavor to attain a certain level of liquidity so that any excess cashflows can be used in investments. Thus, investment strategies are not arbitrary put in place but are goals driven (Gründl & Gal, 2016; Ahmad, 2021).

Other scholars have categorized investments in terms of participation of investors in the process of earning returns from investments. For instance, there is active and passive strategy (Gârleanu & Pedersen, 2022). Active strategies entail investors running the investments where investment placements are made actively as opportunities arise. In this aspect, active investors are involved in day to day running of the markets where they believe they have skills to better returns than leaving their resources in the hands of asset managers.

On the other hand, passive investment strategies are those mechanisms that investors do not run as they invest through timing the market for opportunities (Jaimungal & Al-aradi, 2018). In this aspect, investors do not seek to manipulate the market but rather invest and wait for assets to gain in value where they earn income. Passive strategies could include such assets like government securities, commercial papers and stocks since the investors does not actively run the investments (Gârleanu & Pedersen, 2022; Corum & Malenko, 2023).

The end point of investment strategies is to have an asset allocation program. In other words, an investment strategy is operationalized by establishing asset allocation in which various assets are weighted in respect to their risks and returns (Petukhina et al., 2021). In essence, it aims at balancing risks and returns so that losses are reduced by establishing a risk tolerance level which depicts an optimum asset allocation. A good investment strategy is therefore evaluated in respect to how best risks and returns are balanced through asset allocation (Antonakakis & Cunado, 2020). In as much as risks and returns can be weighted it is not absolutely possible to tell what constitutes an optimum risk-return trade off. This is because, markets are dynamics and there could underlying factors that may not be observable at the time of developing investment strategies and asset allocation programs.

The driving force under investment strategies is that many assets perform differently in different markets or conditions. Given this fundamental consideration, it therefore follows that, assets can be allocated after due care in analysis of risks and returns for different assets (Bessler, Taushanov, & Wolff, 2021). Moreover, it is basically seldom to have same assets experience similar risks or turbulence in the economy.

For this reason, it is true to suffice that an optimum investment strategy is that whose outcome is a robust asset allocation. Risks prevalence, correlations and magnitude are key considerations in formulation and implementation of investment strategies.

The importance of investment strategies cannot be overemphasized. First, it reduces overall risk as it establishes a portfolio of assets whose individual risks are not correlated (Ferri & Ricci, 2021). The prime aim of developing sound investment strategy is to better financial returns from the investments. Accordingly, therefore, it entails diversification in which resources are spread across various assets that do not have risks and returns that are in perfect correlation. Moreover, asset diversification saves a lot when it comes to risk management as assets are invested on in respect to their expected returns (Hunjra, Hanif, Mehmood, & Nguyen, 2021). Third, by having a well laid out investment strategy, firms are able to plan their financial needs. This is because, an investment strategy outlines asset requirements in terms of resources. This enables firm to plan for resource mobilization.

Additionally, investment strategies enable firms to forecast future returns and risks for different classes of assets. For instance, in formation of an investment strategy, asset allocation is done based on past risks and returns on various assets (Bugan & Cevik, 2022). In so doing, a tenable portfolio- allocation strategy is established and this can be used to forecast overall financial returns for firms. As the role of strategy is to achieve a desired goal, it follows therefore, that investment strategy are key drivers in forecasting firm performance. Lastly, investment strategy enables efficient resource utilization.

When companies are formed, they often have several goals and one that overarches is achieving efficiency. Efficiency simply means attaining the best results with a certain level of resources. Thus, an investment strategy aids in achieving efficiency as asset allocation is done in the best efficient manner so that costs are saved and performance improved (Adem, 2023; Najam & Malik, 2022).

In the context of commercial banks, an investment strategy is the overall layout that allocates financial resources into various investments. This plan is done in such a way that it better liquidity, capital adequacy and risk management results. According to Majengo, et al., (2023) many banks in Kenya have financial assets in other financial entities such as hedge funds and also deal in non-financial assets such as property. More importantly, a poorly developed investment strategy exposes banks to risks and could be a major ingredient to bank's failure. There are many investments that commercial banks have. In Kenya, the most common investments made by commercial banks are government securities, real estate property, investments in subsidiaries, joint ventures and loan and advances to customers.

Government securities are debt instruments that governments use to access credit from individuals or corporates (Kenga, Banafa, & Ali, 2024). They are categorized as traditional assets together with stocks and cash. Government securities are either short term or long term. Short term government securities are known as treasury bills and often mature in a period of less than a calendar year. On the other hand, long term government securities include treasury bonds that could span decades to maturity. In essence, government securities carry fixed interest. Government securities are considered risk free investments as it is rare for governments to fail to repay their dues (Kiboi & Bosire, 2022).

Real estate investments compromise of tangible assets that firms invest in passively and actively (Ngoc, Tien, & Hieu, 2023). For instance, firms can build properties and lease for rental income making it an active investment strategy. On the other hand, firms can invest in property such as land for speculation purpose leading to passive investment strategy. In both cases, there are benefits and limitations. For instance, investments in real estate property for leasing provide regular income but then calls for active management of tenants or appointment of an estate agent that could be costly. Also, there are real estate investment trusts (REITs) in which investors can contribute to a pool of capital for dividends (Xu, Matak, Espinosa, Dias, & Pavel, 2025). This is common with investors who do not wish to undergo the hustles of building or constructing properties on their own. The REITs are good investments because they offer constant income in form of dividends for investors. Equally, REITs trade in equity markets making them common with in provision of finance for real estate developers.

Investments in corporates consist of a firm's stake in other firms in form of interest purchase. In this aspect it entails purchase of a portion of shareholding in smaller companies and is more often a mechanism of diversification, synergy building or a mechanism for a new market entry (Andrews, Fainshmidt, Fitza, & Kundu, 2023). The investor company is known as the parent company and the investee is a subsidiary. In case where only an interest is owned, the parent is considered to have a controlling interest. Conversely, a subsidiary can be a wholly owned in which all shareholding is owned by the parent company. Also, firms can invest in other firms through joint ventures where two firms come together to undertake a common investment. Joint ventures are common where huge and capital-intensive projects are involved. Joint ventures entail capital contribution, risk and returns sharing.

Loans and advances are the main assets for a financial entity like a commercial bank. Whilst the distinction between loans and advances is not profoundly clear, loans are considered to be financial products whose terms are standardized (Haralayya, 2021). These loan terms include the repayment amount, repayment period, interest period and default terms are well laid out. On the other hand, advances are informal and flexible financial products such as overdrafts and credit arrangements. Therefore, loans are more versatile and are issued for a variety of reasons while advances are more business related (TestBook, 2025).

1.1.2 Financial Performance

Financial performance is a measure of results of an entity's operations expressed in financial metrics. It is a quantification of how well resources are used in activities in earning revenue (Prihastomo & Khafid, 2019). Moreover, it seeks to evaluate efficiency in resource usage and further examine whether financial goals are being achieved. This indicates that financial performance looks into overall financial standings for firms in regard to how income is generated, expenses incurred and profits realized. Moreover, financial performance equates how a firm is able to meet its financial obligations including short term liabilities, credit from suppliers and long-term debts such as term loans (Alketbi, Elili, & Nobanee, 2022).

In understanding financial performance, key considerations are to be made. First, the financial goals of the organisation must be put into consideration so that it can be established whether a company is in good financial standing or not. For instance, a firm that has a vast access to resources, yet is unable to meet its financial goals, may be considered to have poor financial performance.

Secondly, the industry set up and performance is put into consideration in examining a firm's financial performance. This is crucial so that the relative market leadership and efficiency of a firm can be understood from its peers in the same industry. Lastly, financial performance does not only focus on past historical results, but also considers a firm's potential (Abdikadir, 2017). When financial performance is measured, key efficiency and effectiveness measures are established giving rise to information that can be used to plan operations of a firm to achieve sustainable performance.

Organizations are keen on bettering financial performance for several reasons. To begin with, financial performance shows the financial health of an organization in which if it is favorable, organizations can be said to have achieved their goals. Secondly, financial performance is used to evaluate managerial efficiency in providing robust management for organizations. Lastly, financial performance shows stability of entities (Melwani, 2019). In view of this, financial performance communicates different information that is of interest to various stakeholders. For example, to investors, it offers information on the general well being of the company. This information could be of significant value to investors in making investment decisions on whether to purchase shares from a firm (Olayinka, 2022).

Additionally, financial performance is a useful metric to suppliers and customers (Li, Ng, & Saffar, Financial reporting and trade credit: Evidence from mandatory IFRS adoption, 2021). To suppliers, financial performance offers information on whether a firm is credit worthy to warrant supply in credit. For example, a firm that has a positive outlook in terms of financial performance is likely to get a supply in credit. In contrast, a firm whose financial performance is in jeopardy may not easily get credit suppliers.

On the other hand, customers have an interest in financial performance of firms as it depicts on ability of firms to sustainably provide goods or services. It therefore indicates that financial performance of firms is useful to various stakeholders. For these reasons, firms struggle to maintain sound financial performance as it has a direct impact on how they survive in competitive markets.

In the context of commercial banks, financial performance is critical issue as it provides information on efficiency and effectiveness in which the banks operate. Furthermore, it is a key indicator of whether banks are stable or susceptible to bank failures (Shakil, Mahmood, Tasnia, & Munim, 2019; Weber, 2017; Soewano & Tjahjadi, 2020). For instance, banks with higher earnings are more stable than those with little earnings. At the same time, banks seek to improve financial performance in order to remain competitive and minimize risks of bank's collapse. Well performing banks are free from risk of bankruptcy.

In overall, these measures aggregate the outcome of operations so that it can be established whether firms are sustainably undertaking operations (Hussein, 2017). Generally, financial performance for firms is recorded in original books of entry and later summarized into financial statements. Financial statements are summative reports that show how companies faired in a period of time, usually a year called financial year. These financial statements are prepared as a set comprising of the income statement, balance sheet and cash flow statements (Ali & Hamad, 2021). The income statement is a report that shows revenue and expenses in a period of time. The net of revenue and expenses is profit or loss and shows how efficient firms are. The balance sheet reports assets and liabilities of a firm.

Assets are tangible and intangible resources that are owned by firms while liabilities are obligations for firms. The cash flow statement shows cash generated or used in various categories of activities such as operations, investing and financing activities.

Various measures have been employed to measure financial performance of banks. Most common are financial ratios such as return on assets, return on capital employed, return on investments and return on equity among other measures (Mustafa, 2014). The financial ratios provide information on how bank's activities are done and further provide comparable financial information. According to Enad and Gerinda, (2022) use of financial ratios is preferred because it provides more information on banks' capability and resource usage. Therefore, this study adopted return on assets which is one of the financial ratios as measure of financial performance. The Return on Assets (ROA) is arrived as shown on formula:

$$ROA = \text{Net income} / \text{Total assets}$$

1.1.3 Investment Strategies and Financial Performance

In the context of banks, investment strategies are considered sound drivers of financial performance. This is because, such strategies entail understanding the industries and where to channel financial resources so that returns are maximized and risks lowered (Shim, 2019). Moreover, investment strategies provide a wide array of vehicles for improving profitability and firm performance. Muli and Jagongo (2019) notes that sound investment strategies are important in fostering firm financial health. Again, the investments are made in line with liquidity preferences which entails striking a balance between short- and long-term investments.

For instance, long term investments such as government bonds require a huge deal of financial resources so as to fetch good returns. However, a bank must consider its short-term liquidity needs before channeling funds for long term investments (Oladimeji & Udosen, 2019; Li, et al., 2021).

Investment strategy in the banking sector is not any easy fete considering that the sector is one of the most dynamic sectors in the economy. This is because, there are various systematic risks that face banks and the investments frontiers they invest in. Mutinda and Aluoch (2025) note that investment, asset allocation and diversification for banks is volatile as there is a wide array of factors such as inflation, interest rates and general economic turbulence. This indicates that there exists an uncertainty in respect to outcome of investment as a mechanism of mitigating financial risks. Banks have increasingly engaged in various diversification strategies in order to broaden their revenue streams and at the same time lower returns' volatilities. With robust investment strategies, banks are able to stabilize returns and lower vulnerabilities that exist in the market. Additionally, investment strategies provide banks with resilience enabling them to sustain performance in highly competitive markets (Johnson & Li, 2018).

Banks invest in various assets and securities. The combination of these assets or securities creates a portfolio that has the best returns at lowest risks. Proponents of diversified investments in banks argue that it saves on returns volatilities. It is for this reason that investment adopted should significantly deviate in terms of risks movements (Makokha, Namusonge, & Sakwa, 2016). This indicates that for investments to earn the best yields, they must be heterogeneous in the way they respond to dynamics in the market.

According to Syed et al., (2018) diversified investments improve returns for banks as they are less risky in contrast to having all resources expended in one investment. However, changing markets may pose a challenge in setting up optimum investments for banks. For this reason, it is vital to examine how investments strategies employed by banks influences financial performance.

1.1.4 Listed Commercial Banks in Kenya

Banks in Kenya operate under regulations contained in the Banking Act cap. 488 of the laws of Kenya and the Central Bank of Kenya Act cap.491 (CBK, 2024). The two acts of parliament offer regulatory framework for all banking entities that are involved in deposit taking. Commercial banks in Kenya perform various activities such as deposit taking, credit issuance, underwriting services, brokerage and custodial services among others. Given the importance of commercial banks in Kenya, strict regulations are followed to avoid catastrophic bank failures and protect the banking confidentiality (CBK, 2024).

In Kenya, listed banks are those banks that have floated their shares at the Nairobi Securities Exchange (NSE). The NSE is established under the Capital Markets Act Cap 485A of the laws of Kenya with the mandate of enabling trading in capital instruments such as shares. It has been existence from the early 1950s where it enabled colonials to exchange stocks (NSE, 2024). Although the then NSE was not efficiently structured, it enables stockbrokers to buy and sell stocks. It offered a platform for negotiations between sellers and buyers. Over the years, the exchange enables investors to buy and sell securities from already listed entities and also allows companies to pool capital by floating shares.

There are eleven listed banks in Kenya (NSE, 2024). These banks are Kenya Commercial Bank, National Commercial Bank of Africa, Housing Finance Group, Bank of Kigali, Cooperative Bank, Equity Bank, Standard Chartered, DTB, I&M bank, Stanbic Holding PLC and Absa Bank Kenya PLC. This study purposes to examine investments strategies for these banks. In so doing, the study immensely contributes to theoretical literature and empirical evidence on the nexus between investment strategies and firm performance in Kenyan banks.

1.2 Statement of the Problem

A report by Central Bank of Kenya on financial sector stability records that overall ROA for banks stood at 2.7 percent from 3.3 percent in the year ended December 2022 and 2021 respectively (CBK, 2023). In as much as commercial banks have endeavored to optimize returns from investments, data shows that losses from holding government bonds escalated to Ksh. 66.23 billion in the year 2022 from Ksh. 12.1 billion recorded in 2021. This result was noted even after treasury bonds averaged a return of 8.98 percent from 7.57 percent in the two years.

Additionally, net loans in the same period rose by 15 percent to Kshs. 3.3 trillion but nevertheless the financial performance of the banks was not good. Moreover, a report by CBK (2024) revealed that banks have resorted to reduce over-reliance on loans and are diversifying on assets as the menace of non-performing loans is critically impairing returns. For instance, the last quarter of year 2024, banks reported non-performing loans to the tune of 14.5 percent which was the highest in a decade. The same report showed that pre-tax profits declined by 9.1 percent to Ksh. 212 billion in the year 2023.

According to Ngware, et al., (2020) bank's investment strategies is explained by its portfolio, which is under constant scrutiny by regulators. And, even with this in practice, some banks report poor results. For example, in the year 2023, asset quality for banks deteriorated to 13.33 percent from 11 percent record in the year 2022 revealing that banks are still not able to improve their financial health while return on assets decreased to 2.50 percent from 2.57 in previous year even though there was an asset increase by 21.83 percent (KPMG, 2024).

Moreover, in the last decade, a number of banks have collapsed in Kenya including Chase Bank, Imperial Bank, Charterhouse bank and Dubai bank leading to the question on what succinctly causes poor financial performance for banks to the extent that some collapses. There are some studies that have sought to establish determinants of financial performance of commercial banks in Kenya. However, not many of the studies focused on investment strategy.

Thiongo et al., (2024) focused on loan portfolio and financial performance of banks in Kenya. Results indicated that investments in loan portfolio had adversely affect bank performance and that only capital adequacy bettered bank's returns. The study did not look into similar investment factors like the current study and thus there is a research gap that is filled by the current study. Okwaro, et al., (2024) examined portfolio diversification by banks in Kenya and found out that diversification did not better financial performance while investment diversification significantly improved bank's performance. However, the study did not break down investment diversities as done in the current study.

In the current study, the objective is to establish the nexus between investment strategies (investment properties, government securities, corporate investments and loans and advances) and financial performance of listed commercial banks in Kenya. Addressing the poor performance of commercial banks in research is paramount for a number of reasons. Commercial banks' financial performance is important to the banks and to the entire economy. This is because banks offer vital financial services such as issuance of loans, facilitate transactions, custodial services and accept deposits (Reschiwati & Ibrahim, 2021; Majengo, et al., 2023; Shakil, et al., 2019). Moreover, where banks perform well, they are free from bankruptcy and failure which if left to happen may be catastrophic to the entire financial system. Equally, good financial performance led to bank stability contributing to soundness of a country's financial system. Therefore, this study is crucial as it not only bridges the research gaps that exist but also provide empirical evidence that can aid in policy formulation.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study was to establish the effect of investment strategies and financial performance of listed commercial banks in Kenya.

1.3.2 Specific Objectives

The study had the following specific objectives:

- i. To assess the effect of investment properties on financial performance of listed commercial banks in Kenya
- ii. To establish the effect of government securities on financial performance of listed commercial banks in Kenya

- iii. To determine the effect of corporate assets on financial performance of listed commercial banks in Kenya
- iv. To evaluate the effect of loans and advances on financial performance of listed commercial banks in Kenya.

1.4 Research Hypotheses

The study had the following null hypotheses;

H₀₁: Investment property does not have significant effect on financial performance of listed commercial banks in Kenya

H₀₂: Government securities do not affect financial performance of listed commercial banks in Kenya

H₀₃: Corporate assets have no on financial performance of listed commercial banks in Kenya

H₀₄: Loans and advances have no financial performance of listed commercial banks in Kenya

1.5 Significance of the Study

This study has immense potential of benefitting some audiences. The discourses, literature and results make significant contribution to advancement of theories, policy and practice as explained in this section.

1.5.1 Management of Listed Commercial Banks

The outcome of this study is of value to management of listed banks in Kenya. The study highlights the nexus between investment strategies and financial performance from an empirical point of view. Therefore, the study's outcome can be used by banks in making internal policies relating to investment strategies. The study established the nature and statistical significance of each investment making the results crucial in managerial decision making. For instance, the management can use the findings tell which is the most profitable investments among the four that are examined in this study.

The study found out that investment strategies are significant drivers of financial performance of commercial banks in Kenya. In this aspect, the banks' management need to relook at their investments and how well they are diversified in order to foster resilience and boost financial returns. The study showed that government securities and loans and advances had positive effect on financial performance of banks. Therefore, the management of banks need to improve on the percentage of resources that is allocated to these two investments.

1.5.2 Central Bank of Kenya

The study has policy making significances as it provides information to the regulators of commercial banks, specifically the CBK with evidence on the nexus between investment strategies and financial performance. Therefore, the findings are of value to policy makers at the bank regulation desk in CBK as it makes them able to make informed policy decisions.

The study found out that government securities, which was measured in terms of values of treasury bonds and bills had positive effect on bank's performance that was measured in terms of return on assets. Also, the study found a positive nexus between loans and advances and financial performance.

The Central Bank of Kenya should therefore provide investment guidelines that are in line with the results so that banks can sustain their performance and keep contributing to growth of the economy of Kenya.

1.5.3 Contribution to Theory

The study's findings contribute to advancement of theories in financial performance. The study focused on a number of investments that are specific to banks and therefore can be used as a ground for other studies in the banking sector. For instance, the study investigated the role of investment strategies and financial wellness of listed banks at the Nairobi Securities Exchange.

The study focused on four predictors: real estate investments, corporate assets, government securities and loans and advances. This study is one of its kind as past studies had not considered similar variables which then means it has made key contribution to theoretical and empirical literature in the field of investments, asset allocation, performance and banking sector in Kenya.

1.6 Scope of the Study

The study sought to establish the nexus between investment strategies and financial performance of listed commercial banks in Kenya. In terms of conceptual scope, the study had four predictors namely: investment property, government securities, corporate investments and loans and advances. The response variable was financial performance. The geographical scope was that this study was limited to Kenyan banks that are listed at the NSE. The time scope of the study is that the data was collected from published financial statements and annual reports of the eleven banks from the year 2013 to 2023. Thus, the study adopted a panel data analysis in methodology.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two discusses literature in three categories; theoretical review, empirical review and knowledge gap. This section also has conceptual framework and a tabular presentation of operationalization of study variables.

2.2 Theoretical Review

A theoretical review is a discussion on theories that offer insights on study variables. Moreover, this review provides more explanation in research problems while at the same showing gaps that may exist in concepts that are studied by a given study. The study is based on four theories; Modern Portfolio Theory, Free Cash flow theory, Resource Based View theory and Preferred Habitat theory.

2.2.1 Modern Portfolio Theory

Markowitz (1952) formulated this theory that offers a sound investment allocation in order to achieve best returns with minimal risk levels. The theory is built on the assumption that investors are risk averse and are willing to distribute investments into different classes as long as the overall returns are higher than returns that would have been earned if all resources were committed to a single asset. Rodriguez, et al. (2018) note that MPT is an approach that looks at means of combining assets to minimize risks. It therefore means that for returns to be maximized, a portfolio of assets must be assembled so that all risks are reduced. Key to this theory is the issue of diversification which entails distribution of resources into different assets such that the risk of incurring risks if one fails are reduced. The theory considers that an optimal portfolio can be achieved through sound diversification (Verdiyanto, 2020).

In practice, the modern portfolio theory (MPT) is used where investments and risks of assets are known. Hence, to compute overall returns for optimal portfolio, historical returns must be known so that projections are made. According to Omar and Imad (2024) with information on risks and returns for various assets, an investor is able to mathematically construct an optimal portfolio that is well diversified. Essentially, the main motive of having a portfolio is to achieve greater returns than it possible if all resources are invested in one asset. Thus, the return from one investment is not as important as overall returns. For this reason, the theory idealizes that variances and correlations in risks and returns from investments should be established in order to arrive at acceptable risk level. Thus, overall volatility of an optimal portfolio is lower and expected returns are higher (Chen, 2023; Cui & Cheng, 2022; Sandwick & Collazzo, 2021).

Modern portfolio theory has some weaknesses that makes its application not always feasible in all circumstance. For instance, the theory does not give a limit of number of assets in asset allocation that yield the best results (Cui & Cheng, 2022). As such, it can occasion losses or expensive diversification strategies. Equally, the theory relies on historical data to examine risks and returns of which information changes over time. Therefore, relying on historical data can lead to poor outcomes should current or future economic conditions change. Lastly, the theory assumes that the correlation between risks and returns are static in the entire period of investments. This is not often the case, as economic conditions change and this can distort the portfolio risks and returns as planned (Jang & Seong, 2023; Amanah & Purwanto, 2024).

Modern Portfolio Theory is suitable in this study as it offers explanation on investment strategies where assets are allocated in portfolios that have the best results. Using the concept of diversification as advocated by the theory, firms can distribute investments into different platforms so that risks are lowered. In this aspect, listed banks can invest deposits in various investment platforms to earn revenue. For instance, listed banks' main activity is issuance of loans whereas excess liquidity is invested in properties, government bonds and bills, corporate investments such as subsidies and deposits with Central Bank of Kenya.

2.2.2 Free Cash Flow Theory

This theory was proposed by Jensen (1986) and looks into financial health of firms in relation to its operating and investment activities. It measures the ability of a firm to generate cash flows after accounting for expenses and non-cash expenses such as depreciation. Moreover, this theory indicates the cash flow from investment activities are a key indicator of a firm's long term growth ability and long term returns and performance sustainability. In other words, investment income builds companies to higher heights in respect to growth. For instance, managers are expected to make decisive investment decisions that are optimal in relation to returns. Thus, positive cash flows are important to firms as they provide more resources to undertake growth strategies which can result to better profits (Yeo, 2018).

One subtle point that overarches this theory is the issue of availability of free cash flows and how these cash flows are used. According to Nguyen and Nguyen (2018) free cash flows are financial left-overs after meeting operations and financing obligations.

The theory notes that, more often than not, finance managers do not want to pay dividends to shareholders but want to commit the free cash flows from operations, financing or investments in making further investments for future gains (Lai, et al., 2020). In order to achieve more returns, there must be available free cash flows and opportunities to invest the same in profitable ventures. More importantly, the issue of free cash flows is not absolute as it is a managerial behavior. It means that managers can determine whether cash flows are free or otherwise which may occasion agency conflicts. Therefore, managers should make investment policies and strategies that puts their interest second to those of the firms and shareholders.

The major criticism of this theory is that it advocates for use of free cash flows investments which then means it may not be useful to those firms that have negative cash flows. For instance, a firm at the inception years may record poor free cash flows but still show tremendous investments from shareholder's contributions. Equally, the idea of free cash flows is relative and thus not comparable from sector to sector. This is because, some sectors are capital intensive and do not regard free cash flows as major drivers of investments rather than other sources. Lastly, overreliance on free cash flow can lead to misuse of funds by managers in the pursuit of investments that have low profitability (Afiezan, Wijaya, & Claudia, 2020).

This theory has been used in this study as it expounds on role of investments and managerial decisions on growth and firm performance. The theory advocates for firms to prudently use resources in income generating investments as opposed to holding idle cash.

Proponents of the theory argue that holding idle cash flow increases agency costs and this issue can be addressed by strictly investing any excess funds (Chosiah, et al., 2019; Nobanee & Abraham, 2017). Thus, the availability of free cash flows plays a role in investment strategies considering that an optimal investment portfolio is achieved where resources are present in the desire amounts. However, excess cash flow if not put into good use may be embezzled leading to business failure. The current study examined how investment strategies influence financial performance of listed banks in Kenya.

2.2.3 Resource Based View Theory

The Resource Based View Theory was proposed by Barney (1991) and points that performance of firms is dependent on resources that a firm has. It views both internal and external resources play a significant role on firm performance. This is because, operations of firms utilize resources and it is these operations that generate revenue. Therefore, for firms to have better performance, the firm must either possess resources that competitors do not have or those that cannot be copied easily (Khan, et al., 2024). Secondly, resources that provide firms with competitive advantages that results to superior performance must be firm-specific so that performance is improved by focusing on resources that are inside firms. This is more crucial where the resources are valuable and rare as this makes it difficult for other entities to copy.

This theory categorizes resources into three; tangible, intangible resources and capabilities (Barney, 1991; Karim, Nahar, & Demirbag, 2022). Tangible resources are material things such as buildings, cash deposits and other properties that are used in income generating activities.

Intangible resources are those assets such as brand attributes that are non-physical. On the other hand, capabilities are resources that are firm-specific and cannot be copied by others. It is a combination of these three resources that provides firm with competitiveness in the industry (Dionysus & Arifin, 2020). Hence, it is the role of managers to source for the resources and invest them in a manner that investment goals of the companies are realized. For instance, a listed can structure lending business to attract profitable clients which can then lead to more returns as opposed to serving the mass market.

The RBV theory has some criticisms. Foremost, it does not adequately address the issue of dynamic resources that change. For instance, some resources that were once rare can change from the status, and the theory fails to explain how competitive advantage is sustained in such a case (Ariwibowo, Saputro, & Haryanto, 2021). Secondly, the theory does not critically explain how resources lead to good returns. For instance, firms can have access to resources but still fail to achieve competitiveness leading to poor results. Lastly, the theory assumes that firms have different resources which is not always the case. At times, firms have access to same resources which make it unclear on how the proposition of RBV would be used in such a case (Bamel & Pereira, 2021).

Resource based view theory has been used in this theory to provide a tacit understanding of firm performance. The theory advocated that resources are key ingredients in bringing about capabilities which in turn lead to superior performance. For instance, this theory can be used by listed banks in making investment decisions that may catapult banks to superior performance.

Using the tenets of this theory, banks can be used their internal resources in making strategic investments that can boost firm returns. The study evaluated whether investment strategies used by banks are in any way beneficial to the wellness of banks.

2.2.4 Preferred Habitat Theory

The theory of preferred habitat was proposed by Modigliani and Sutch (1966) and is premised on the proposition that investors prefer some investment horizons and will not desire to change unless there is a change in returns in respect to maturities. This means that investors consider time of maturities for investments such as bonds in making investment decisions (Strohsal, 2017; Suo & Tanaka, 2018). The theory further asserts that where the change in returns from investments is accompanied by further positive changes in interest returns, investors may consider deviating their investment preferences. As such, in order for investors to hold securities for a longer time, they must enjoy more premium returns. Thus, in ideal situations, investors prefer to hold short term securities such as bills and not long-term securities. Conversely, holding long term assets require premium returns (Giese, Joyce, Meaning, & Worlidge, 2021).

According to Costa (2019) investors buy bonds that stretch above their time preference where the risk premium is high. This theory provides that long term investments, more often have higher returns than short term returns. In this aspect, the theory holds all other factors uniform and assumes that investors are risk averse as they will take longer assets when there are higher returns. The theory draws heavily on the yield curve in which the returns are categorized in three segments; short term, intermediate and long term in which the gradient is influenced by a wide array of variables such as demand and supply in the securities market.

This theory has been used in various studies due to its strengths in explaining investments and securities dynamics. For example, Joyce and Meanig (2024) argue that the preferred habitat theory is crucial in modelling term structure of interest rates as it presents key information on what influences investments in different maturities. They argue that a demand in long term investments is only meaningful where investors are able to associate the wait for premium returns. This means that long maturity bonds and investments are consumed where they fetch higher returns as naturally short-term investments are preferred. Therefore, the longer the period, the longer the yield curve will rise in respect to returns versus time (Almeida, Ardison, Kubudi, Simonsen, & Vicente, 2018).

The theory of preferred habitat has some few limitations that makes its practical use a challenge. For instance, the theory assumes that long term investors have higher yields. This may not be the case as there are no risk-free arbitrage chances in markets (Riedel, 2018). Moreover, the theory relies on consumer behavior that may not be substantially consistently verifiable. This limits its use in situations where investors are willing to change from preferences to respond to other changes in the market other than yields on investments. Lastly, the theory may not be useful in market that experience rapid changes (Ray, 2019).

A number of reasons has made this the theory of preferred habitat pertinent in this study. First, the theory is closely related to government securities as it depicts what motivates investors in making yield decisions. The theory points that the longer the bonds maturities, the higher the premium returns. Therefore, long term bonds have higher returns than short term bills. Secondly, the theory characterized returns of investments in respect to time structure. This provides information on expected returns from various assets.

2.3 Empirical Review

The study attempts to assess various investments done by listed banks in Kenya in respect to how they affect firm performance. These investments are investment property, government security, corporate investments and loans and advances. This section of the study presents empirical review in regard to these variables.

2.3.1 Investment Properties

Ogendi (2022) studied portfolio composition and firm performance in Kenya. The study delved on insurance companies where data was sourced from. The key goal of the study was to relate investment property, government security, term deposits, stocks leverage and liquidity and financial returns. The outcome of the study was that investment property, stocks and government securities significantly improved performance while real estate had non-significant negative effect on firm returns. Leverage had negative effect on firm returns and liquidity had positive but insignificant effect on firm returns. Whereas the study provides plausible results, it did not utilise panel regression techniques that offer more data variability and outputs.

Donkor-Hyiaman, et al., (2021) examined the effect of corporate investment property on bank profitability. The study was done among banks in Ghana. This study was motivated by the concern that acquisition of investment property by banks was a capital intensive project whereas it wasn't clear if it improved firm profits.

The study used primary data and secondary data from a total of twenty five banks and data analysis used cross-sectional designs. Results evidenced that corporate real estate investments improved profitability of banks.

Maengwe (2015) studied the relationship between real estate property and company profitability in Kenya. The study had three independent variables: property investment, claims ratio and operational expenses. On the other hand, profitability was measured in terms of return on equity. The study looked into performance of insurance companies where secondary data was collected from 49 insurance firms in Kenya. The study adopted descriptive research design and data was subjected to regression analysis. It was noted that investment property had positive insignificant effect on profitability while both claims ratio and operational expenses had negative insignificant effect on profitability of insurers.

Iregi and Okeyo (2017) sought to relate investments and profitability of insurance entities across Kenya. By use of descriptive statistics, the study sourced data from a sample of insurers with the specific aims of relating active and passive investment modes and profitability. The study noted that passive investments are more profitability than active investments. The study indicated that investments in stock, equity and cash equivalents, bonds and investment in associates and subsidiaries improved firm profitability. However, results showed that investments in real estate property did not better profitability as it was an active investment strategy which in overall impaired firm profits. The study also noted that active investments were costly.

2.3.2 Government Securities

Teixeira, et al., (2021) undertook a study in Cape Verde whose specific objectives were to relate government bonds on two aspects of firm performance; liquidity and bank profitability. The method used to analyze data was panel regression as bank-level data was sourced from all commercial banks.

The study found that investments in government bonds had no effect on bank liquidity. However, investments in government bonds had positive effect on bank profitability where profitability was measured in form of return on assets and return on equity.

Michael (2018) looked at the role of government bond purchase on banks that has credit constraints and also on other non-financial organizations. This study was done in the European Union where data was sourced from European Commercial Bank. The study reported that investing in government bonds negatively affected non-financial firms borrowing capacity and equally hampered bank's profits. As a result, investing in government bonds did not better the welfare of either of the firms as cost and profits worsened.

Using data from 42 commercial banks in Kenya, Abdikadir (2017) studied role of investments in firm performance. The study had several independent variables; government securities, corporate bonds, liquidity, stocks, bank size, capital adequacy and credit risk. Findings that were obtained by running regression models showed diverse results. For instance, capital adequacy, bank size, liquidity and stock investments had positive and significant effect on firm performance (return on assets). In contrast, property, government securities and credit had insignificant negative relation with financial performance of banks.

Kiboi and Bosire (2022) carried out a research in Kenya aimed at determining whether the investment choices selected by the management affect their financial performance. Data was collected from 37 general insurance companies for the periods 2013-2019.

The considered investments were real estate property, money market savings, government securities and quoted ordinary shares. Correlation and simple regression were used to analyze the data. It was revealed from the study that the selected investment choice had a positive and significant impact on the return on equity for the sampled firms.

Kenga, et al., (2024) examined the impact of investment diversification in short-term government securities on the financial performance of the retirement benefits schemes in Kenya. Primary and secondary data was employed in this study. Statistical package for social sciences was used for data analysis. It was revealed from the study that investment diversification in short term government securities had a significant positive impact on the financial performance of the retirement benefit schemes in Kenya.

2.3.3 Corporate Investments

Kioko and Ochieng (2020) conducted a study to examine the impact of portfolio diversification on the financial performance of Kenya's quoted investment firms. Data was extracted from the Nairobi Securities Exchange and the websites of the respective listed investment companies. Descriptive statistics was used to analyze the data that was gathered. The results revealed that bond investments and return on investments had a negative and insignificant impact on the financial performance of the listed firms.

Muema, et al., (2021) aimed at examining the impact of equity investments, bond investments on financial performance of collective investment schemes in Kenya. Data was sought from the capital markets authority annual reports. Data was analysed using descriptive statistics, correlational analysis and panel regression analysis.

It was revealed that equity investments had a positive and significant impact on liquidity while bond investments had an insignificant impact. Both equity and bond investments had an insignificant impact on collective investment schemes return on assets.

Adhiambo, et al, (2023) investigated the relationship between portfolio diversification and the financial performance of large businesses in Kisumu County, Kenya. data was collected using a document analysis guide. Inferential and descriptive statistics were used as the data analysis tools.it was indicated from the study that stock investment positively correlated with financial performance.

2.3.4 Loans and Advances

Focusing on deposit money banks in Nigeria, Aderonke, et al., (2021) looked at the effect of loans and advances on performance of the banks. The study sourced secondary data for a ten-year period. The specific aims were to relate loans and advances, interest rates and inflation on performance. Results of OLS regression showed that loans and advances had strong positive impact on bank performance and sustainability.

Dang (2019) studied loans and performance of banks in Vietnam. The study looked at how loan growth influence credit risk, profiability and solvency. The study made use of data banks for a twelve-year period. The findings revealed that loans growth had positive effect on profitability of banks in Vietnam. Also loan growth affected bank loan loss provisions and capital ratio.

Maina, et al., (2020) sought to determine the effect of bank size on profitability of banks in Kenya. The study aims were to link bank deposits and bank loans and advances on profitability of banks. Thus, bank size was proxied by deposits and loan portfolio. On the other hand, profitability was measured in terms of annual net income. The study used secondary data that covered a five-year period which was subjected to correlational and regression analysis. The findings of the study showed that customer deposits and loans and advances had positive effect on profitability of lenders in Kenya.

Nyamita, Wandubusi and Ombok (2023) undertook a study to establish the role of portfolio management on firm returns. The study was done on listed insurers in Kenya. The objectives were to examine the role of portfolio size, asset allocation and portfolio risk on firm performance. The study measured firm performance in form of economic value added. The outcome of the study showed that all the three predictors had significant role on firm performance. However, portfolio risk had negative effect on firm results while both portfolio size and asset allocation had positive effect. Whilst the study has important insights, it did not examine the components of asset allocation in that it did not examine the specific outcome of such assets like investment property, government securities and so on. The current study examined how asset allocation impacts on firm performance.

2.4 Knowledge Gap

The empirical review has revealed that a number of studies have been done to examine investments strategies and financial performance of firms in different industries. However, a number of research gaps still remain and therefore there is role this study has in meeting these gaps. The identified research gaps are explained hereunder.

Donkor-Hyiaman, et al., (2021) studied corporate investment property in Ghana and noted that investment property improved performance of banks. However, contradicting results were found by who found out that the although real estate property improved performance insurance companies in Kenya, the improvement was insignificant. Moreover, Iregi and Okeyo (2017) found out that real estate property did not better insurer's financial returns. Evidently, there is empirical gap in the results of the three studies as the first found found that investment property boost performance while the latter two found contrasting results. In this aspect, there is a need to conduct more studies to bridge the empirical evidence that has emanated from the results of the three prior studies.

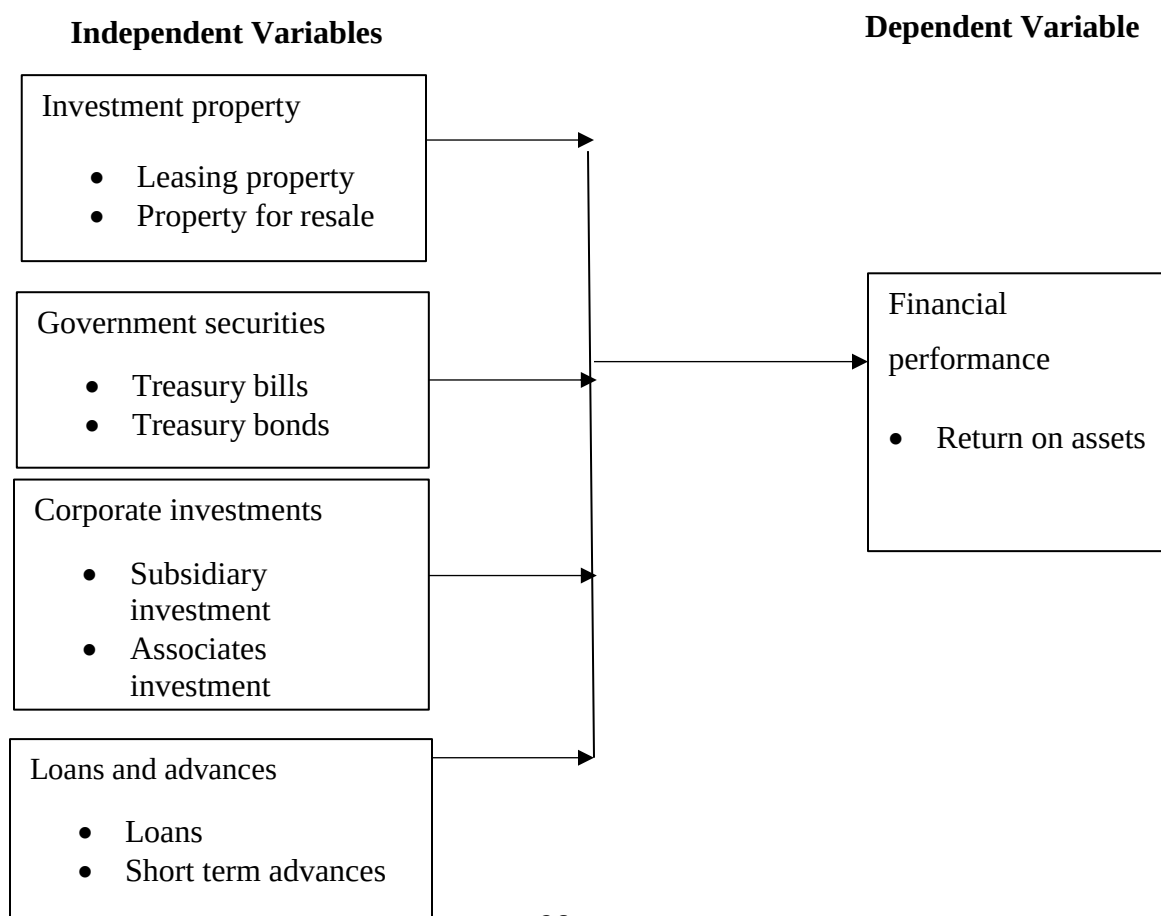
There is also a conceptual gap that relates to how investment strategies were defined in prior studies. For instance, Teixeira, et al., (2021) looked at government bonds and firm performance. Bank performance was measured in two ways; liquidity and bank profitability. However, in the current study bank performance was measured in terms of return on assets giving it a broad view of financial performance.

Additionally, there are studies that have been undertaken in different sectors as opposed to the current study. For instance, Kiboi and Bosire (2022) did a study in the insurance sector and found out that were real estate property, money market savings, government securities and quoted ordinary shares all had positive effect on performance. The current study was done among listed banks in Kenya. In overall, the current study is vital as it bridges the gaps identified in this section.

2.5 Conceptual Framework

Figure 1 shows the conceptual framework which indicates the nature of variables that are considered in this study.

FIGURE 1 Conceptual Framework



The information on the conceptual framework shows that the study had four predictors and one response variables. These variables were hypothesised to relate to each other and data was collected and analysed to provide the nexus between the variables. Investment property refers to land and buildings that are maintained for two main reasons. First, investments property can be maintained for capital appreciation in which gains are made when they are disposed of. On the other hand, property can be used for leasing in which rental income is realised. This variable was measured by getting the ratio of investment property over total assets.

Government securities are instruments that are used by federal government in securing debts from individuals and or corporates, locally or outside the country. Government securities are broadly categorised into two spectrums depending on maturity: short term and long-term securities. Short term securities are mainly in form of bills that mature in less than a year. On the contrary, bonds, also known as treasury bonds are securities that mature in over a year. Both bills and bonds are issued for subscription and they ate interests to those who purchase them for the specific periods they are in place. In this study, government securities were measured in terms of bonds and bills that banks had purchased from the government of Kenya.

Corporate investments are those stakes held in other companies. They are in various forms ranging from direct investments in joint ventures and investments in subsidiaries. Joint ventures are undertaking that companies undertake with other entities so that risks and returns are shared. Moreover, joint ventures are often time specific as they end when the specific activity leading to their formation comes to an end. On the other hand, investments are subsidiaries represents investments in entities by means of full or significant controls.

For example, the National Bank of Kenya was a subsidiary of KCB until it was sold off to Access Bank. The study measured corporate investments in terms of joint venture and subsidiary stakes at the balance sheet data.

Loans and advances refer to credit that is issued to customers. Loans are long term credit facilities while advances are often short term such as overdraft facilities. Loans and advances are critical assets for a lending entity as they significantly contribute to income for lenders. This is because financial institutions exist to offer credit to customers for interest. It therefore implies that interest income is the main revenue stream for lenders. In this study, loans and advances were measured by getting the value of loans and advances as at the reporting date.

The response variable was financial performance which in a broad spectrum refers to outcome of investing and trading activities for companies. Financial performance measures the efficiency in use of resources. In this study, financial performance was measured in terms of return on assets, meaning that it was measured in terms of financial ratios. Return on assets was obtained by getting the ratio of net income over total assets in order to establish the extent to which assets yielded returns. Return on assets was preferred over other measures as the study sought to establish the effect of investment strategies and financial performance of listed commercial banks in Kenya.

2.6 Operationalization of Variables

The information on Table 1 relates to operationalization of variables

TABLE 1
Operationalization of Variables

Variable type	Name of Variable	Indicators	Measurement of variable	Scale
Dependent	Financial performance	Return on assets	This was measured in ROA=net income/ total assets	Interval
Independent	Investment properties	Leasing property Property for resale	This refers to investment properties at the reporting date= investment property/ total assets	Interval
Independent	Government securities	Treasury bills Treasury bonds	This refers to government bonds and bills at the reporting date = government securities/ total assets	Interval
Independent	Corporate investment	Subsidiary and associates' investments	This is stake in associates and subsidiaries at the reporting date= corporate investments/ total assets	Interval
Independent	Loans and advances	Loans Short term advances	This refers to loans that are issued by the bank= loans and advances/ total assets	Interval

Source: Literature Review (2025)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents various issues that were considered and procedures of data collection and analysis so as the findings are valid. The chapter covers research design, study population, data collection and data analysis techniques.

3.2 Research Design

A research design is a strategy that is used to achieve objectives of the study. It presents processes that are key to conducting a study. In this sense, a research design is a plan of action as it describes what is done to meet the aims of the study and ensure that results obtained are substantially valid (Wang & Cheng, 2020). This study used descriptive research design which typically is used where the concern is to describe a situation without controlling or conducting experiments (Burke & Schoonenboom, 2017). The current study utilized firm-level data and no controlling was done.

Secondly, a descriptive study attempts to demonstrate existence or lack of it as it may be between variables. The study focused on establishing the nexus between various investments and bank performance in Kenya. Lastly, since in descriptive studies there is no controlling that is done, natural phenomenon can be described (Shinija, 2024). For this study, the real influence of selected investments on firm performance was established. This provided insights into understanding the problem of firm financial performance as a function of investment strategies.

3.3 Study Population

The study population is composition of all objects that are to be studied. It is a group of similar units that the research problem is based on. This indicates that a study population contains the universe of units that have some common features which distinguishes it from other populations (Adam, 2021). Thus, a study population is a set that has common characteristics across entities or members of the population. In Kenya, listed entities are those companies or group of companies that trade their securities at securities exchange market as regulated by the Capital Markets Authority. In this view, the study population of the study was 10 (ten) listed commercial banks in Kenya as per the (Nairobi Securities Exchange, 2024). The key inclusion criteria to this study population is that an entity must be listed at the NSE. This is presented on Table 2

TABLE 2
Study Population

Study population	Number of banks
Listed commercial banks operating in Kenya	10

Source: NSE (2024)

3.4 Data Collection Procedure

This study collected secondary data from financial statements of listed banks. A secondary data collection sheet was used to record and store data. In terms of the procedure, the financial statements were obtained from individual firm websites. The study had four predictors which are; investment properties, government securities, corporate investments and loans and advances which were all obtained from balance sheet of the banks.

The absolute values for the variables were summarized on a Microsoft Excel workbook so that a panel data set can be collated. The study assembled data for an eleven-year period, from 2013-2023 that was sourced from published financial statements of the companies.

3.5 Data Analysis Technique

This study adopted panel regression analysis in data analysis. A panel data is a firm-level data set where data has been longitudinal characteristics, that is derived from different time points. In this study, the time, t , component was year 2013 to 2023 whereas the panel component, i , is due to reason that 10 listed banks are considered in this study. There are a number of reasons that has made panel data regression fit for this study. First, panel data takes omitted variable biases into consideration which in overall improves model estimation. Second, it enables more synthesis of data as there are more observations for the same variable over a period of time. This means that is possible to evaluate model estimates for individuals and within groups. In this sense, panel regression provides opportunities for researchers to test different variations across the data in a simultaneous manner. The STATA software was used to analyze data. The outputs were presented on tables and graphs.

3.5.1 Regression Analysis

The study had four predictors proxied by connotations X . The response variable is proxied by Y . The panel model is specified on Equation I

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon_{it} \dots\dots\dots(I)$$

Whereas Y financial performance, X_1 is investment properties, X_2 is government securities, X_3 is corporate investments and X_4 is loans and advances. β_1 to β_5 are coefficients for the predictors and ε is error.

3.5.2 Diagnostic Testing

Diagnostic testing in data analysis entails an in-depth review of analysis output to establish whether assumptions of regression analysis are sustained. This is vital as the assumptions must be adhered to for results to be accepted as valid. The tests that were done include multicollinearity, heteroscedasticity and normality of residuals.

3.5.3 Multicollinearity

In case predictors are strongly correlated, the situation is known as multicollinearity (Kalnins & Praitis, 2023). Therefore, multicollinearity is a condition that is present if independent variable have significant interrelationships in that one of them can influence variations in another or others. Typically, predictors should have very minimal correlation as presence of multicollinearity leads to amplified standard errors that in turn decreases significance of model estimates such as variable coefficients (Lavery, Archarya, Sivo, & Xu, 2019). In other words, presence of multicollinearity is harmful as it causes unreliable estimates as the output has imprecise estimates.

This study used Variance Inflation Factor (VIF) that offers insights on how much estimates such as coefficients have been inflated due to multicollinearity in the data. The VIF measures stretches from 1 to infinity and the lower the better as low VIF evidences uniqueness of each predictor. However, VIF of less than are mostly used as the gauge for admissible levels of multicollinearity. Higher VIF show that the coefficients are adversely incorrect and at times spurious.

3.5.4 Heteroskedasticity

In case the variances of residuals are not constant across observations, the condition is known as heteroscedasticity (Daryanto, 2020). It exists where variances of residuals are unequal leading to inflation of residuals. In this study, heteroscedasticity was assessed by use of modified Wald test that is expressed as:

H_0 : Residuals variances are constant

Test result: reject null, if, $p\text{-value} < 0.05$

3.5.5 Serial Correlation

The correlation in errors is known as serial correlation and is by inference caused by non-random variables with their lagged version. This study particularly assessed first order serial correlation which is common to panel data set. It is present when errors in a period are related to errors in previous adjacent periods (Kwak, Martin, & Wooldridge, 2023). The problem with first order serial correlation is that it leads to incorrect model estimates. The study assessed serial correlation by use of Wooldridge test. In case the p-value is less than the selected threshold, then serial correlation is inferred to exist. Various mechanisms can be used to rectify issues relating with serial correlation. These include addition of lag terms to response variable, use of panel-corrected standard errors method or use of generalized least square regression procedures.

3.5.6 Normality of Residuals

The residuals are errors in regression and are expected to be normally distributed so that model estimates are not skewed. Considering that residuals are the differences that emanate from observed values and the predicted values, it is thus vital that the underlying residuals are normally distributed (Feng, Li, & Sadeghpour, 2020).

Absence of residuals normality leads to incorrect and imprecise model inferences. This study used Shapiro-Wilk to test residuals normality which is set as a hypothesis:

H_0 : residuals statistically deviate from normal distribution.

Rejection criteria: reject null of p-value for W is less than the threshold.

3.6 Model Specification

Model specification in the light of panel data involves checking on stability of models in respect to the data and outputs so as to select the fittest model such random effects, fixed effects or pooled OLS models. Random effects (RE) model assumes that certain observed parameters are changing while in Fixed effects (FE) only within- panel parameters are fixed (Amini, et al., 2012). This study used Hausman test to establish which model was appropriate for the data. Typically, where p-value is less than the selected threshold, FE model is adopted. The null hypothesis for Hausman test is set as:

H_0 : difference in coefficients not systematic

Criteria for rejection: reject null hypothesis where, Prob> χ^2 is less than 0.05.

In addition, the study performed static panel model where time periods are considered as predictor variables. In this aspect, any circumstantial relationship between past and present observations for variables is not considered as significant. This further means that data was not related in terms of temporal dependencies and therefore, it was possible to select either FE or RE model.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Introduction

This chapter contains discussions on outcomes from data analysis. In doing this, the chapter is arranged into several sections starting with descriptive statistics, exploratory data analysis, panel data analysis and ends with testing of hypothesis and discussion of findings. The panel data was analysed by use of STATA as the tool provides robust analysis for panel data.

4.2 Descriptive Statistics

In retrospect, the study sought to establish the effect of investment strategies and financial performance of listed commercial banks in Kenya. The study examined four investment strategies; investment properties (InvProp), government securities (Gvnt_sec), corporate investments (Cor_Inv) and loans and advances (Loans_adv). The response variable was financial performance which was measured in terms of Return on Assets (ROA). The study sourced firm level data from 10 listed commercial banks (i) for a period of 11 years, from the year 2013 to 2023 (t). The outcome for descriptive statistics discussed in this section are in absolute figures and in the local currency (Kenya shillings).

The results of descriptive statistics indicated that the most common investment for listed banks was loans and advances (M=222 billion, SD=165 billion). This outcome showed that investments in loans and advances was high. This finding is as hypothetically expected considering that the main income generating assets for lenders are loans and advances. Commercial banks allocate substantial amounts of financial resources to different categories of loans and advances what earn interest.

The inference that loans and advances are major assets for commercial banks is further supported by the finding that the minimum loans and advances recorded in the eleven-year period was 34.7 billion and maximum loans and advances was 1.1 trillion. In addition, results showed that investment in government securities was high (M=88.4 billion, SD=91.6 billion). The minimum value for government securities was 26.4 million and the maximum was 50.1 billion. Government securities include bonds and bills issued by the government through the national treasury. These securities are in essence government debt instruments that earn interest payable to holders. Government securities are attractive as they are considered risk free investments.

Further findings revealed that banks also heavily investment in investment property (M=20.7 billion, SD=2.43 billion). The maximum value of investment property was 137 billion and the minimum was zero. This outcome showed that listed bankers had substantially invested in investment property either for resale or for rental income. More inferences from descriptive statistics showed that corporate investment which referred to investments in subsidiaries and joint ventures was high (M=20.5 billion, SD=30.6 billion). The highest level of corporate investments was 114 billion and the lowest was 9.9 million. It infers that a number of listed commercial banks had subsidiaries and joint ventures. However, corporate investment was the least investment strategies.

Lastly, listed commercial banks reported poor financial performance measured in terms of ROA (M=0.025, SD=0.012). The best performing listed commercial banks recorded a ROA 0.05 and the lowest was a loss of -0.031. This finding indicates that financial performance of most listed banks was low. As such, the assets did not earn much income as the return on assets was measured in terms of net income divided by total assets.

These discussions are based on the statistics on Table 3

TABLE 3
Summary Statistics for Variables

Variable		Mean	Std. Dev.	Min	Max	Observations
inv_pro	Overall	2.07e+09	2.43e+09	0	1.37e+10	N= 103
	Between		1.77e+09	4.53e+07	5.42e+09	n = 10
	Within		1.72e+09	-1.89e+09	1.03e+10	T= 10.3
govnt_-c	Overall	8.84e+10	9.16e+10	2.64e+08	5.01e+11	N= 110
	Between		6.46e+10	4.43e+09	2.00e+11	n= 10
	Within		6.78e+10	-6.91e+10	3.89e+11	T= 11
cor_inv	Overall	2.05e+10	3.06e+10	9983000	1.14e+11	N= 110
	Between		2.69e+10	5.25e+07	6.81e+10	n = 10
	Within		1.68e+10	-3.58e+10	7.00e+10	T= 11
loans_-v	Overall	2.22e+11	1.65e+11	3.47e+10	1.10e+12	N = 100
	Between		1.35e+11	4.23e+10	5.36e+11	n = 10
	Within		1.03e+11	-8.56e+10	7.83e+11	T = 11
ROA	Overall	.0254967	.0118653	-.0305987	.0497748	N = 110
	Between		.0095921	.0023878	.0373573	n = 10
	Within		.0075642	-.0074898	.0441093	T= 11

Source: (Data analysis, 2025)

4.3 Exploratory Data Analysis

To visualize the data and identify the appropriate model to use in data analysis, the study employed line graphs: single line and overlaid graphs. On both Figure 2 and Figure 3, it was deduced that there were no outliers and also there was not much group differences evidencing that panel data analysis was preferred instead of using pooled OLS. Ideally, panel data is used where data pattern, particularly for the response variable is void of subgroup differences.

Moreover, pooled OLS is used where there are no omitted variable biases, assumes homogeneity and independence of observations. However, panel data accounts for more individual and time specific effects and was used in this study largely because there were no outliers and evidence from trend was not sufficient to rule that observations were independent of each other. Figure 2 and Figure 3 represents single and overlain graphs respectively.

FIGURE 2

Overlaid Graph for Response Variable (ROA)

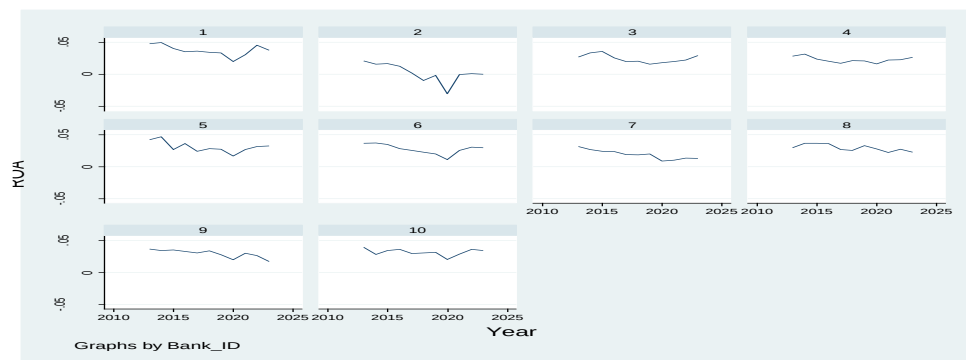
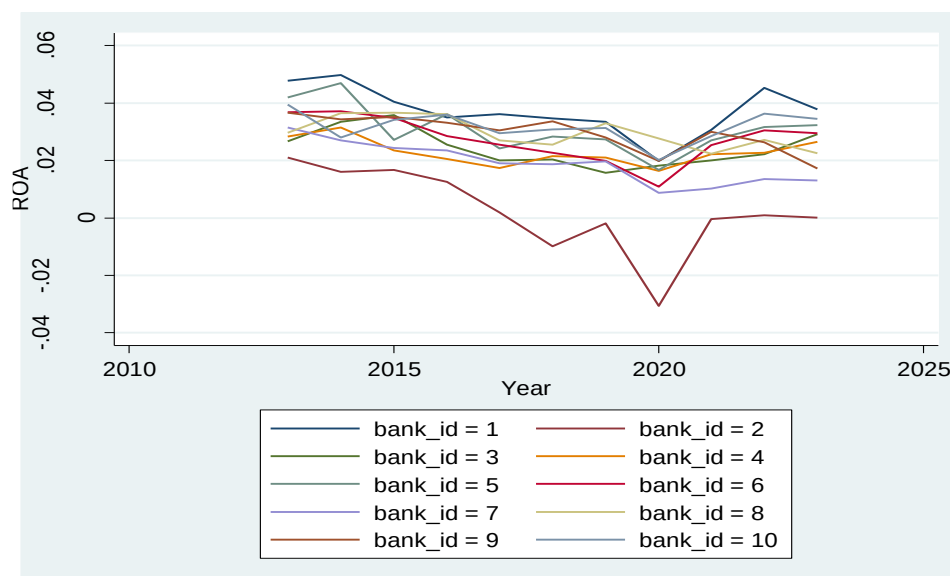


FIGURE 3

Overlaid Graph for Return on Assets (ROA)



4.4 Panel Data Analysis

This study used panel data regression as observations for all variables were collected for each listed commercial bank over multiple time periods. Panel data regression is considered robust technique for two reasons; it allows time invariant and time varying effects thus providing more variability in regression estimates. At the same time, it considers unobserved heterogeneity thus leading to reduced omitted variable biases. However, outputs from regression analysis are valid where they pass certain diagnostic tests that include absence of first order serial correlation, heteroskedasticity, multicollinearity and existence of normality for residuals. The findings on the tests are discussed in this section.

4.4.1 First Order Serial Correlation

First order serial correlation is present when errors in a period are related to errors in previous adjacent periods (Kwak, Martin, & Wooldridge, 2023). The study assessed serial correlation by use of Wooldridge test whose outcome is shown on Table 4.2. The results on Table 4.2 indicated that first order serial correlation was not present ($F(1,32) = 4.309$, $p=0.0677$). Rule of thumb is that serial correlation exists where the p-value for the Wooldridge test is less than 0.05 for a study whose data analysis is done at 95 % confidence level.

In view of this outcome, it was concluded that residuals in consecutive points were not correlated. Therefore, the estimates in form of regression coefficients could be reliably reported without causing harm to hypothesis testing which if first order serial correlation was present, it could have led to t-statistics being more significant than in true reflection. The test results are shown on Table 4

TABLE 4
First Order Serial Correlation

Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
F(1, 9) = 4.309
Prob > F = 0.0677
<i>Source: Data Analysis (2025)</i>

4.4.2 Multicollinearity

Multicollinearity is a condition that is present if independent variable have significant interrelationships in that one of them can influence variations in another or others. The study used Variance Inflation Factor (VIF) in measuring existence of multicollinearity. The outcome showed that multicollinearity was within the acceptable level as in all cases it was below 10. Loans and advances had VIF of 1.66, government securities 1.76, corporate investments had VIF of 1.11 and investment property had VIF of 1.10.

In regression, multicollinearity is critical as it interferes with reliability of regression estimates. For instance, where one of more predictors are linearly correlated, it causes inflation of standard errors thus enlarging confidence intervals typically making coefficients unstable and volatile. Also, it impairs the efficacy of standard errors in establishing the variation influencing by changes in predictors, that can lead to inefficient outcomes even where significant relationship exists. The findings on VIF are shown on Table 5

TABLE 5
Variance Inflation Factor

	VIF	1/VIF
Govnt sec	1.764	.567
Loans adv	1.661	.602
Corp Inv	1.109	.902
InvPro	1.096	.912
Mean VIF	1.408	.

Source: Data Analysis (2025)

4.4.3 Heteroskedasticity

This condition exists where variances of residuals are unequal leading to inflation of residuals. In this study, heteroscedasticity was assessed by use of modified Wald test whose outcome evidence that heteroskedasticity was present ($\chi^2=92.78$, $p<0.05$). The modified Walt test evaluates the null hypothesis for homoscedastic variances of residuals. Therefore, the null hypothesis is rejected where the critical value is less than 0.05 leading to conclusion that homoscedastic condition did not exists. In this study, therefore, the residuals did not have constant variances as the null hypothesis for homoscedastic relationship was rejected.

Presence of heteroskedasticity biases standard errors and further culminates into inefficient estimates. This infers that where residuals do not have constant variances, there is biases in coefficients due to biased error terms. Also, inefficient regression estimates complicate model use in predicting the response variable. This is because the error term, mostly, occasions higher variances that actually ought to be in the circumstance that homoscedastic assumption is met. As a remedy, the model estimates were reported using robust standard regression model. The result for test of heteroskedasticity is shown on Table

TABLE 6**Modified Wald test for Groupwise Heteroskedasticity**

Modified Wald test for groupwise heteroskedasticity					
in fixed effect regression model					
H0: $\sigma(i)^2 = \sigma^2$ for all i					
chi2 (10) = 92.78					
Prob>chi2 = 0.0000					
Source: (Data analysis,2025)					

4.4.4 Residual's Normality Test

The residuals are errors in regression and are expected to be normally distributed so that model estimates are not skewed. This study used Shapiro-Wilk to test residuals normality which is set as a hypothesis: Results that the residuals were normally distributed ($W=0.796$, $p\text{-value}=0.087>0.05$). This inference was made because, the Shapiro-Wilk null hypothesis: H_0 : residuals statistically deviate from normal distribution was rejected showing normal distribution for the residuals. Given this outcome, the regression coefficients were reported using panel corrected standard errors regression

TABLE 7**Shapiro-Wilk W test for normal data**

Shapiro-Wilk test					
Variable	Obs	W	V	Z	Prob>z
residuals	103	0.796	17.282	6.332	0.087

Source; (Data analysis, 2025)

4.4.5 Hausman Model Specification Test

The study used Hausman test to establish which model was appropriate in the data. Typically, where p-value is less than the selected threshold, FE model is adopted. The outcome showed that fixed effects (FE) model was efficient ($\chi^2=14.23$, $p<0.05$). The null hypothesis for Hausman test is set as: *Ho: difference in coefficients not systematic* and criteria for rejection: reject null hypothesis where, $\text{prob} > \chi^2$ is less than 0.05.

TABLE 8
Hausman (1978) Specification Test

	Coef.
Chi-square test value	11.20
P-value	.0244

Source: (Data analysis, 2025)

4.4.6 Regression Coefficients

The panel data coefficients were reported using robust standard regressions as the residuals did not have constant variance (non-homoscedastic). The overall model was found to be statistically significant ($\chi^2=20.114$, $p=0.000<0.05$). This finding indicated that the model linking investment strategies and financial performance of listed commercial banks in Kenya was statistically significant.

Additionally, the R^2 was 0.639, revealing that 63.9 % of variations in financial performance, proxied by ROA was due to changes in investment strategies, namely investment property, government security, corporate investments and loans and advances.

Conversely, 26.1 % of variations in financial performance was influenced by factors not considered in this study. It therefore meant that the predictors accounted for a large percentage in variations in financial performance. This was expected since, the four predictors hypothetically ought to influence firm results for banks significantly.

The regression equation was established as follows:

$$Y_{it} = 0.026 - 0.701X_{1it} + 0.003X_{2it} - 0.084X_{3it} + 0.013X_{4it}$$

Whereas 0.026 represented return on assets when the investment strategies examined in the study were not factored. -0.701 is the decrease in ROA in response to a unit increase in investment property. 0.003 is the increase in ROA in response to a unit change in government securities. -0.084 is the decrease in ROA in response to a unit increase in corporate investments and 0.013 is the increase in ROA in response to a unit increase in loans and advances.

The findings showed that investment property had negative and significant effect on financial performance ($\beta=-0.701$, $p<0.05$). This indicates that investment property does not enhance financial results of listed banks measured by return on assets. In other words, income from investment property in terms of rent and capital gains does not improve welfare of listed commercial banks. Additionally, the results revealed that there was a positive and significant effect of government securities on financial performance of listed banks ($\beta=0.003$, $p=0.819>0.05$). This meant that government securities better results of banks although in a non-significant manner.

More findings evidences that corporate investments had negative and significant effect on financial performance of listed commercial banks ($\beta=-0.084$, $p<0.05$). It meant that having investments in subsidiaries and joint ventures did not improve financial performance of listed commercial banks. Lastly, results indicated that loans and advances had positive non-significant effect on financial performance ($\beta=0.013$, $p=0.216>0.05$). It meant that loans and advances improved financial performance of listed commercial banks. These outcomes are presented on Table 9

TABLE 9

Prais-Winsten regression, heteroskedastic panels corrected standard errors

ROA	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
InvPro	-.701	.302	-2.32	.02	-1.292	-.11	**
Govnt_sec	.003	.012	0.23	.819	-.021	.027	
Corp_Inv	-.084	.025	-3.37	.001	-.134	-.035	***
Loans_adv	.013	.01	1.24	.216	-.007	.033	
Constant	.026	.007	3.57	0	.012	.041	***
Mean dependent var		0.025	SD dependent var		0.012		
R-squared		0.639	Number of obs		103		
Chi-square		20.144	Prob > chi2		0.000		

*** $p<.01$, ** $p<.05$, * $p<.1$

$$Y_{it} = 0.026 - 0.701X_{1it} + 0.003X_{2it} - 0.084X_{3it} + 0.013X_{4it}$$

Source: (Data analysis, 2025)

4.5 Testing Hypotheses and Discussion of Findings

The inferences on this section are drawn from the statistics on Table 9 in the preceding section. The study had four hypotheses that were tested by examining the p-value for the coefficients of each predictor. The rule of thumb is that null hypothesis is rejected where p-value is less than 0.05. The tests for the hypotheses are discussed hereunder: The first hypothesis that was set as ***H₀₁: Investment property does not have significant effect on financial performance of listed commercial banks in Kenya***, was rejected ($\beta=-0.701$, $p<0.05$).

Therefore, the relationship between investment property and financial performance of listed commercial banks was significant. Moreover, investment property did not better firm performance for the banks. This finding was in line with what was found by Iregi and Okeyo (2017) who sought to relate investments and profitability of insurance entities and found out that investment properties had negative effect on firm profitability. However, the finding contradicts those of Donkor-Hyiaman, et al., (2021) who examined the effect of corporate investment property on bank profitability and noted that investment property positively improved firm profitability.

The second hypothesis that was set as ***H₀₂: Government securities does not affect financial performance of listed commercial banks in Kenya***, was not rejected. ($\beta=0.003$, $p=0.819>0.05$). This result revealed that there was a positive and significant effect of government securities on financial performance of listed banks his meant that government securities better results of banks although in a non-significant manner. Government securities earn interest on periodic terms and for this reason, they are considered safe and risk free. Thus, even though, the interest in most emerging economies is low, it is more often assured as rarely do governments default on their financial obligations.

This finding was in line with that of Teixeira, et al., (2021) who undertook a study in Cape Verde and found out that government securities had positive effect on bank profitability. However, Michael (2018) looked at the role of government bond purchase on banks and reported that government bonds had negative impact on banks' profits in the European Union. Also, Abdikadir (2017) studied role of investments in firm performance and established that government security instruments had negative insignificant effects on firm performance.

The study found out that government securities had insignificant positive effect which contradicts other studies as government securities do not have much returns in Kenya, in comparison to those in the European Union as identified by Abdikadir (2017).

The third hypothesis was set as H_03 : *Corporate assets have no on financial performance of listed commercial banks in Kenya*, was rejected ($\beta=-0.084$, $p<0.05$). This meant that investment in corporates such as through subsidiaries and joint venture strategies did not improve financial performance. Therefore, corporate assets impaired banks' results in a significant manner. This negative role of investing in corporate meant that subsidiaries did not improve the welfare of banks. For instance, the Kenya Commercial Bank had acquired National Bank of Kenya and later disposed it off in less than five years indicating that subsidiaries did not improve bank financials. This finding is in line with that of the study done by Kioko and Ochieng (2020) that reported that investments in corporates lowered profitability of investment firms listed at the NSE.

Also, Muema, et al., (2021) examined the impact of equity investments, bond investments on financial performance of collective investment schemes in Kenya and revealed both equity and bond investments had an insignificant impact on collective investment schemes return on assets. However, Adhiambo, et al, (2023) investigated the relationship between portfolio diversification and the financial performance of large businesses in Kisumu County and the findings indicated from the study that stock investment positively correlated with financial performance.

The final hypothesis that was set as ***H₀₄: Loans and advances has no financial performance of listed commercial banks in Kenya*** was not rejected ($\beta=0.013$, $p=0.216>0.05$). This is because the results indicated that loans and advances had positive non-significant effect on financial performance. Thus, in as much as loans and advances improved financial performance, this was not in a significant manner. Perhaps this is due to the prevailing credit market that has been existence in the last decade in the Kenyan banking system where non-performing loans had increased. Non-performing loans lowers asset quality for banks and this can result to poor financial performance. This finding contradicts those of Aderonke, et al., (2021) who looked at the effect of loans and advances on performance of the banks and showed that loans and advances had strong positive impact on bank performance and sustainability. Further , the results of the study done by Maina, et al., (2020) showed that loans and advances had positive significant effect on bank's profitability.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This is the final chapter of the study that sought to examine role of investment strategies on financial performance of listed commercial banks in Kenya. The chapter has a summary of findings, conclusions, recommendations, limitations of the study and suggestions for further research.

5.2 Summary of Findings

The general objective of the study was to establish the effect of investment strategies and financial performance of listed commercial banks in Kenya. The study investigated the effect of investment property, government securities, corporate investments and loans and advances. The study sourced data from published financial statements of the listed banks for a period of 11 years, from 2013 to 2023. Descriptive statistics showed that the most common investment was loans and advances followed by government securities, then investment property and the least common was corporate investments. In addition, it was found out that financial performance was low for the listed commercial banks during the period under review.

5.2.1 *Investment Property and Financial Performance*

The study found out that investment property had negative effect on financial performance. Also, the results showed that investment property significantly hampered financial performance of listed commercial banks. This suggests that investment properties do not improve financial returns for banks.

5.2.2 *Government Security and Financial Performance*

The study found out that government security had positive effect on financial performance of listed commercial banks in Kenya. Furthermore, the relationship between government securities and financial performance was found to be statistically insignificant. This suggests that government securities boosted firm returns but in a moderate way.

5.2.3 *Corporate Investments and Financial Performance*

The study found out that corporate investments had negative effect on financial performance of listed commercial banks in Kenya. Additionally, it was noted that the relationship between corporate investment and financial performance was statistically significant. This finding meant that an increase in corporate investments deteriorated financial performance in a significant manner.

5.2.4 *Loans and advances and Financial Performance*

The study found out that loans and advances had positive effect on financial performance of listed commercial banks. Also, the results showed that the relationship between loans and advances and financial performance was statistically insignificant. This meant that loans and advances improved financial performance of listed banks in a moderate way.

5.3 *Conclusions*

Investment strategies are mechanisms or platforms of investing that firms use to achieve financial goals. In this aspect, various assets are selected depending on management's risk preference, leading to a portfolio of investments. For commercial banks, investment strategies are done in both financial and non-financial assets.

In Kenya, banks invest in investment property, government security, corporate investment and loans and advances. On realization of the dynamics in the banking sector, the study envisioned to establish the role of investment strategies on financial performance. The results detailed in the previous chapter led to the conclusion that it was statistically plausible to predict financial performance as a function of investment strategies. This is because the model was statistically significant. Further, it was concluded that of the four predictors included in the panel corrected standard errors model, two variables: investment property and corporate investments had negative and significant effect on financial performance. This meant that the two investments impaired financial performance. On the other hand, government security and loans and advances had positive insignificant effect on financial performance of listed banks in Kenya.

5.4 Recommendations

The study found out that investment strategies affected financial performance of listed commercial banks in Kenya. Moreover, investment property and corporate investments had negative significant effect on financial performance while government securities and loans and advances had positive insignificant effect on financial performance. Based on these findings, the following recommendations are made:

5.4.1 Recommendations to Listed commercial banks

The study recommends that banks need to relook at their investment strategies as performance was dismal. Banks need to invest more in loans and advances and government securities as these two assets had positive effect on financial performance.

Conversely, banks should prudently invest in investment property and corporate as the two impaired financial performance in a significant way. Banks can invest in diversified loan portfolios so that the positive effect of loans and advances can be maximized.

5.4.2 Recommendations to policymakers

The study recommends that the Central Bank of Kenya need to revamp and institute investment strategies guidelines that are alive to the dynamics of the current asset markets. For instance, the CBK can operationalize a framework for guiding banks on how to make the best out of investment in government securities and loans and advances that had positive effects.

5.5 Limitations of the Study

The study is limited in two ways. First, secondary data was extracted from published financial statements of banks. At times the financial data is not up to date as financial statements are adjusting entries that can lead to restatement of annual financial statements. If this happens in future, the study could be limited to this effect. Additionally, the study analysed data using panel data regression that is prone to non-identification of unobserved heterogeneity that could renders some test a challenge to interpret.

5.6 Suggestions for Further Research

The study used secondary data that was sourced from published financial statements and therefore suggests that another study is done using primary data so as to gather more insights on the effect of investment strategies and financial performance of listed commercial banks in Kenya.

The study focused on listed commercial banks only. Thus, it is suggested that another study is done focusing on other banks that are not listed so the results can be compared and contrasted. Lastly, investment strategies can be operationalized in different means such as it has been done in this study but also can include more variables to the model. For instance, another study can be done to establish the moderating effect of managerial efficiency, firm size, leverage or even macro-economic conditions on the relationship between investment strategies and financial performance of listed commercial banks in Kenya.

REFERENCES

- Abdikadir, A. H. (2017). The relationship between investments and financial performance of commercial banks in Kenya. *School of Business, University of Nairobi*, 1-46.
- Adam, A. (2021). A study on sample size determination in survey research. *New Ideas Concerning Science and Technology*, 4(1),125-134.
- Adem, M. (2023). Impact of income diversification on bank stability: a cross-country analysis. *Asian Journal of Accounting Research*, 8(2), 133-144.
- Aderonke, M., Theresa, U., Mairafu, S., & Dele, O. (2021). Effects of loans and advances on performance of deposit money banks in Nigeria. *Bingham Journal of Economics and Allied Studies*, 5(2),179-190.
- Adesina, K. S. (2021). How diversification affects bank performance: The role of human capital. *Economic Modelling*, 94(1),303-319.
- Adhiambo, A. M., Melly, P. T., & Mwanza, J. W. (2023). Relationship between portfolio diversification and financial performance of large enterprises in Kisumu County,Kenya. *East African Journal of Business and Economics*, 6(1),300-315.
- Afiezan, A., Wijaya, G., & Claudia, C. (2020). The effect of free cash flow, company size, profitability and liquidity on debt policy for manufacturing companies listed on IDX in 2016-2019 periods. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 3(4), 4005-401.
- Ahmad, M. (2021). Does underconfidence matter in short-term and long-term investment decisions? Evidence from an emerging market. *Management Decision*, 59(3), 692-709.
- Al-harbi, A. (2019). The determinants of conventional banks profitability in developing and underdeveloped OIC countries. *Journal of Economics, Finance and Administrative Science*, 24(47),4-28.
- Ali, D., & Hamad, H. (2021). The role of the cash flow statement to provide accounting information for the financial decision-making process:(Case study International Islamic Bank of Kurdistan in the year 2018. *Qalaai Zanist Journal*, 6(2), 870-88.
- Alketbi, O. S., Elili, N. O., & Nobanee, H. (2022). Firm strategy and financial performance: What is the role of sustainability? Evidence from the banking system of an emerging market. *Business Strategy & Development*, 5(3), 259-273.
- Almeida, C., Ardison, K., Kubudi, D., Simonsen, A., & Vicente, J. (2018). Forecasting bond yields with segmented term structure models. *Journal of Financial Econometrics*, 6(1),1-33.
- Amanah, N., & Purwanto, B. (2024). Optimal portfolio and the integrated strategy. *Management Analysis Journal*, 13(2), 130-139.
- Amini, S., Delgado, M., Henderson, D., & Parmeter, C. (2012). Fixed vs random: The Hausman test four decades later. *Essays in honor of Jerry Hausman*, 29, 479-513.

- Andrews, D. S., Fainshmidt, S., Fitza, M., & Kundu, S. (2023). Disentangling the corporate effect on subsidiary performance. *Strategic Management Journal*, 44(12), 2986-3011.
- Andros, S., Akimova, L., & Oksana, B. (2020). Innovations in management of bank deposits portfolio: structure of customer deposit. *Marketing and Management of Innovations*, 29(1), 206-220.
- Antonakakis, N., & Cunado, J. (2020). Oil and asset classes implied volatilities: Investment strategies and hedging effectiveness. *Energy Economics*, 91, 104762.
- Ariwibowo, P., Saputro, F., & Haryanto, H. (2021). Analysis of Strength & Weakness, Using the Concept of Resource-Based View with the VRIO Framework in Sharia Cooperatives. *urnal Manajemen Strategi dan Aplikasi Bisnis*, 4(1), 279-294.
- Arpaci, I., Aslan, O., & Kevser, M. (2024). valuating short-and long-term investment strategies: development and validation of the investment strategies scale (ISS). *Financial Innovation*, 10(1), 63.
- Arvind, K., & Li, W. (2023). The demand for money, near-money, and treasury bonds. *The Review of Financial Studies*, 36(5), 2091-2130.
- Bamel, U., & Pereira, V. (2021). Extending the resource and knowledge based view: A critical analysis into its theoretical evolution and future research directions. *Journal of Business Research*, 132, 557-570.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1): 99–120.
- Bessler, W., Taushanov, G., & Wolff, D. (2021). Factor investing and asset allocation strategies: a comparison of factor versus sector optimization. *ournal of Asset Management*, 22(6), 488.
- Bugan, M., & Cevik, E. (2022). Emerging market portfolios and Islamic financial markets: Diversification benefits and safe havens. *Borsa Istanbul Review*, 22(1), 77-91.
- Burke, J., & Schoonenboom, J. (2017). How to construct a mixed methods research design. *KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 69(1), 107-131.
- CBK. (2023). *Kenya Financial Sector Stability Report 2022*. Nairobi: Central Bank of Kenya.
- CBK. (2024, November 29). *Invest in government securities*. Retrieved from CBK Website: <https://www.centralbank.go.ke/securities/>
- CBK. (2024, November 12). *Regulations and Guidelines Pursuant to the Banking Act (Cap 488)*. Retrieved from Central Bank of Kenya: <https://www.centralbank.go.ke/policy-procedures/legislation-and-guidelines/>
- Chen, Z. (2023). Index model with Modern Portfolio Theory and its application to find optimal portfolio in the American stock market. *Highlights in Business, Economics and Management*, 24, 1-9.

- Chosiah, C., Purwanto, B., & Ermawati, W. (2019). Dividend policy, investment opportunity set, free cash flow, and company performance: Indonesian's agricultural sector. *Jurnal Keuangan dan Perbankan*, 23(3): 403–417.
- Corum, A., & Malenko, A. (2023). *Corporate governance in the presence of active and passive delegated investment*. Copenhagen Business School: Copenhagen Business School.
- Costa, C. J. (2019). Preferred habitat and the term structure of interest rates in DSGE models. *Journal of Applied Economics*, 22(1), 581-601.
- Cui, Y., & Cheng, C. (2022). Modern portfolio theory and application in Australia. *Journal of Economics, Business and Management*, 10(2), 128-132.
- Dang, V. (2019). The effects of loan growth on bank performance: Evidence from Vietnam. *Management Science Letters*, 9(6):899-910.
- Daryanto, A. (2020). Tutorial on heteroskedasticity. *Cross Mark*, 16(5), 8-20.
- Dionysus, R., & Arifin, A. (2020). Strategic orientation on performance: The resource based view theory approach. *Jurnal Akuntansi*, 24(1), 136–153.
- Donkor-Hyiaman, K., Terper, E., Tudzi, E., & Owusu-Manu, D. (2021). Corporate real estate management and bank profitability. *Journal of Research in Emerging Markets*, 3(4):35-47.
- Enad, O., & Gerinda, S. (2022). Enhancing financial performance of the banks: the role of customer response and operations management. *Journal of Innovation and Entrepreneurship*, 11(28), 1-16.
- Feng, C., Li, L., & Sadeghpour, A. (2020). A comparison of residual diagnosis tools for diagnosing regression models for count data. *BMC Medical Research Methodology*, 20(1), 175.
- Ferri, S., & Ricci, F. (2021). The role of financial strategy in firms: Financing and investment decisions. In financial strategies for distressed companies: A critical analysis and operational tools. *Cham: Springer International Publishing*, 47-75.
- Gârleanu, N., & Pedersen, L. (2022). Active and passive investing: Understanding Samuelson's dictum. *The Review of Asset Pricing Studies*, 12(2), 389-446.
- Giese, J., Joyce, M., Meaning, J., & Worlidge, J. (2021). Preferred habitat investors in the UK government bond market. *Bank of England Working Paper No. 939*, 1-26.
- Gründl, H., & Gal, J. (2016). The evolution of insurer portfolio investment strategies for long-term investing. *OECD Journal: Financial Market Trends*, 2.
- Haddawee, A., & Flayyih, H. (2020). The relationship between bank deposits and profitability of commercial banks. *International Journal of Innovation, Creativity and Change*, 13(7), 226-234.
- Haralayya, B. (2021). Study on loans and advances for DCC Bank main Branch Nayakaman, Bidar. *Iconic Research And Engineering Journals*, 4(12), 232-242.

- Harichandana, K. (2020). A study on loans and advances of commercial banks. *Journal of Emerging Technologies and Innovative Research*, 7(8),222-226.
- Hunjra, A., Hanif, M., Mehmood, R., & Nguyen, L. (2021). Diversification, corporate governance, regulation and bank risk-taking. *Journal of Financial Reporting and Accounting*, 19(1), 92-108.
- Hussein, A. A. (2017). The relationship between investments and financial performance of commercial banks in Kenya. *Thesis report*.
- Iregi, R. N., & Okeyo, J. (2017). The relationship between investment strategies and profitability in the insurance industry in Kenya. *International Journal of Finance*, 2(5):51.
- Jaimungal, S., & Al-aradi, A. (2018). Outperformance and tracking: Dynamic asset allocation for active and passive portfolio management. *Applied Mathematical Finance*, 25(3), 268-294.
- Jan, G., & Robert, S. (2023). Application of machine learning in algorithmic investment strategies on global stock market. *Research in International Business and Finance*, 66(1),102052.
- Jang, J., & Seong, N. (2023). Deep reinforcement learning for stock portfolio optimization by connecting with modern portfolio theory. *Expert Systems with Applications*, 218(1), 119556.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance and takeovers. *American Economic Review*, 76,323-329.
- Johnson, D., & Li, Y. (2018). European banks' asset diversification and financial performance: A quantitative analysis. *European Financial Management*, 24(3), 452-475.
- Joyce, M., & Meanig, J. (2024). Do preferred habitat investors exist? Evidence from the UK government bond market. *Economics Letters*, 234, 111462.
- Kalnins, A., & Praitis, H. (2023). The VIF score. What is it good for? Absolutely nothing. *Organizational Research Methods*.
- Kareem, A., Fayed, Z., Rady, S., Salsabil, A., Nema, B., & Fayed, Z. (2023). Factors influencing investment decisions in financial investment companies. *System*, 11(3),146.
- Karim, M., Nahar, S., & Demirbag, M. (2022). Resource-based perspective on ICT Use and firm performance: A meta-analysis investigating the moderating role of cross-country ICT development status. *Technological Forecasting and Social Change*, 179,121626.
- Kenga, Banafa, A., & Ali. (2024). Effect of Investment Diversification in Short-term government securities on the financial performance of retirement benefits schemes in Kenya. *Journal of Finance and Accounting*, 8(1),1-1.

- Kenga, D. S., Banafa, A. A., & Ali, A. I. (2024). Effect of investment diversification in short-term government securities on the financial performance of retirement benefits schemes in Kenya. *Journal of Finance and Accounting*, 8(1),1-13.
- Khan, I., Khan, I., Ali, S., & Suleman, S. (2024). Board diversity on firm performance from resource-based view perspective: new evidence from Pakistan. *International Journal of Productivity and Performance Management*, 73(3),649-675.
- Kiboi, B. T., & Bosire, M. (2022). Selected investment choices and effect on financial performance of insurance companies in Kenya. *International Journal of Economics, Business and Management Research*, 6(4),133-150.
- Kiboi, B. T., & Bosire, M. (2022). Selected investment choices and effect on financial performance of insurance companies in Kenya. *International journal of economics, business and management research*, 6(4), 133-150.
- Kioko, D. M., & Ochieng, M. (2020). Effect of portfolio diversification on the financial performance of investment firms listed in the Nairobi Securities Exchange. *Jpurnal of finance and Accounting*, 4(5),77-96.
- KPMG. (2024). *Kenya listed banks: 2023 financial results outlook*. Nairobi: KPMG.
- Kundu, S., Park, S., & Vats, N. (2020). The geography of bank deposits and the origin of aggregate fluctuations.
- Kwak, D., Martin, R., & Wooldridge, J. (2023). The robustness of conditional logit for binary response panel data models with serial correlation. *Journal of Econometric Methods*, 12(1),33-56.
- Lai, K., Latiff, A., Keong, C., & Qun, T. (2020). The impact of free cash flow on firm's performance: Evidence from Malaysia. *Eurasian Economic Perspectives* , 3-16.
- Lavery, M., Archarya, P., Sivo, S., & Xu, L. (2019). Number of predictors and multicollinearity: What are their effects on error and bias in regression? *Communications in Statistics - Simulation and Computation*, 48(1),27-38.
- Li, X., Feng, H., Zhao, S., & Carter, D. (2021). The effect of revenue diversification on bank profitability and risk during the COVID-19 pandemic. *Finance Research Letters*, 43(1),101975.
- Li, X., Ng, J., & Saffar, W. (2021). Financial reporting and trade credit: Evidence from mandatory IFRS adoption. *Contemporary Accounting Research*, 38(1), 96-128.
- Liudmyla, Z. (2023). Investment strategy of the banking sector in the context of financial market instability. *Finansovo-Kredyt'na Diyal'nist*, 5(52), 25.
- Maengwe, R. (2015). Relationship between property investments and profitability of insurance companies in Kenya. *Unpublished Master's thesis report, University of Nairobi*.

- Maina, G., Kiragu, D., & Kamau, R. (2020). Relationship between firm size and profitability of commercial banks in Kenya. *International Journal of Economics, Commerce & Management*, 7(5),249-262.
- Majengo, J. A., Otinga, H., & Miroga, J. (2023). Investment diversification and financial performance of commercial banks listed at Nairobi Securities Exchange. *The Strategic Journal of Business & Change Management*, 10 (4), 48–6.
- Makokha, A., Namusonge, G., & Sakwa, M. (2016). Effect of portfolio diversification on commercial banks financial performance in Kenya. *International Journal of Business and Management Invention*, 5(9),5-8.
- Markowitz, H. M. (1952). Portfolio selection. *The Journal of Finance*, 7 (1): 77–91.
- Melwani, R. (2019). Impact of internal financial determinants on financial performance. *Journal of Commerce and Accounting Research*, 8(3), 75.
- Michael, K. (2018). The effects of government bond purchases on leverage constraints of banks and non-financial firms. *International Journal of Central Banking*, 96-160.
- Modigliani , F., & Sutch, R. (1966). Innovations in interest rate policy. *The American Economic Review*, 56(2),178-197.
- Muema, J. N., Omagwa, J., & Wamugo, L. (2021). Equity investments,bond investments and financial performance of collective investment schemes in Kenya. *International Journal of Finance and Banking Studies*, 10(3),104-114.
- Muli, A. M., & Jagongo, A. (2019). Investment strategies, fund size and financial performance of defined contribution schemes in Kenya: Theoretical review. *International Academic Journal of Economics and Finance*, 3(3),253-265.
- Muluka, K., & Ngware, S. (2024). Effect of deposits portfolio on the financial performance of commercial banks in Kenya. *International Journal of Management and Commerce Innovations*, 11(2),385-396.
- Musile, T., Aruanno, E., & Suardi, M. (2018). A European banking business models analysis: the investment services case. *Journal of Financial Regulation and Compliance*, 26(1), 35-57.
- Mustafa, A. (2014). Evaluating the Financial Performance of banks using financial ratios- A case study of Erbil bank for investment and finance. *European Journal of Accounting Auditing and Finance Research*, 2(6),162-177.
- Mutinda, D. M., & Aluoch, M. O. (2025). Portfolio diversification and profitability in selected commercial banks in Kenya. *International Academic Journal of Economics and Finance (IAJEF)*, 4(4)65-89.
- Nairobi Securities Exchange. (2024, November 28). *Listed companies*. Retrieved from A NSE web site: <https://www.nse.co.ke/listed-companies/>
- Najam, H., & Malik, I. (2022). Nexus between diversification and banking efficiency in developing economies. *Journal of Business and Economics*, 13(2),34-49.

- Nawaz, T. (2017). Momentum investment strategies, corporate governance and firm performance: an analysis of Islamic banks. *Corporate Governance: The International Journal of Business in Society*, 17(2), 192-211.
- Ngoc, M., Tien, N., & Hieu, V. (2023). The relevance of factors affecting real estate investment decisions for post pandemic time. *International journal of business and globalisation*, 1(1), 1-15.
- Nguyen, A., & Nguyen, T. (2018). Free cash flow and corporate profitability in emerging economies: Empirical evidence from Vietnam. *Economics Bulletin*, 38(1), 211-220.
- Nguyen, N., Doan, D., & Nguyen, H. (2023). The relevance of factors affecting real estate investment decisions for post pandemic time. *International Journal of Business and Globalisation*, 10(50), 3-15.
- Ngware, S. G., Olweny, T., & Muturi, W. (2020). Does bank size moderate relationship between banks' portfolio diversification and financial performance of commercial banks in Kenya? *SEISENSE Journal of Management*, 3(2), 14-30.
- Nobanee, H., & Abraham, J. (2017). The impact of free cash flow, equity concentration and agency costs on firm's profitability. *Investment Management and Financial Innovations*, 2, 19-26.
- NSE. (2024, November 12). *Nairobi Securities Exchange*. Retrieved from Nairobi Securities Exchange: <https://www.nse.co.ke/listed-companies/>
- Nyamita, M., Wandubusi, C., & Ombok, B. (2023). Effect of portfolio management on the financial performance of listed insurance firms in the Nairobi Securities Exchange, Kenya. *European Journal of Economic and Financial Research*, 7(3), 146-161.
- Ogendi, M. B. (2022). Effect of portfolio framework on the financial performance of general insurance firms in Kenya. *Thesis report, University of Nairobi*.
- Ogunlusi, O., & Obademi, O. (2021). The impact of behavioural finance on investment decision-making: A study of selected investment banks in Nigeria. *Global Business Review*, 22(6), 1345-1361.
- Okwaro, A., Chelogoi, S., & Kapkiyai, C. (2024). Does size matter? portfolio diversification and financial performance of commercial banks in Kenya: Testing the moderating effect of bank size. *Journal of Business, Economics and Management Research Studies*, 2(2), 45-63.
- Oladimeji, M. S., & Udosen, I. (2019). The effect of diversification strategy on organizational performance. *Journal of Competitiveness*, 11(4), 120-131.
- Olawale, A. (2024). Capital adequacy and financial stability: A study of Nigerian banks' resilience in a volatile economy. *GSC Advanced Research and Reviews*, 21(01), 001-012.
- Olayinka, A. A. (2022). Financial statement analysis as a tool for investment decisions and assessment of companies' performance. *International Journal of Financial, Accounting, and Management*, 4(1), 49-66.

- Oleiwi, H. (2020). Relationship between bank deposits and profitability of commercial banks, practical example of Jordanian commercial bank. *Advances in Economics, Business and Management Research*, 157,46-49.
- Omar, G., & Imad, E. (2024). The influence of behavioral biases on portfolio management decisions: Deviations from the efficient frontier of modern portfolio theory. *SpringerLink*, 209-217.
- Pahlevi, R., & Indri, O. (2018). Determinants of individual investor behaviour in stock investment decisions. *AFRE Accounting and Financial Review*, 1(2),53-61.
- Petukhina, A., Trimborn, S., Härdle, W., & Elendner, H. (2021). Investing with cryptocurrencies—evaluating their potential for portfolio allocation strategies. *Quantitative Finance*, 21(11), 1825-1853.
- Prihastomo, E. D., & Khafid, M. (2019). The effect of bonus compensation and leverage on earnings management with. *Accounting Analysis Journal*, 7(1), 52–60.
- Ray, W. (2019). Monetary policy and the limits to arbitrage: Insights from a New Keynesian preferred habitat model. *Meeting Paper*.
- Reschiwati, E., & Ibrahim, I. (2021). The role of financial performance of Indonesia's banking firms. *International Journal of Latest Engineering and Management Research (IJLEMR)*, 6(3),20-32.
- Riedel, F. (2018). Heterogeneous time preferences and interest rates- The preferred habitat theory revisited. *European Journal of Finance* , 10(1):3-22.
- Rodriguez, Y., Gomez, J., & Contreras, J. (2018). Diversified behavioral portfolio as an alternative to Modern Portfolio Theory. *The North American Journal of Economics and Finance*, 58,101508.
- Sandwick, J., & Collazzo, P. (2021). Modern portfolio theory with sharia: a comparative analysis. *Journal of Asset Management*, 22(1), 30-42.
- Shakil, M., Mahmood, N., Tasnia, M., & Munim, Z. (2019). Do environmental, social and governance performance affect the financial performance of banks? A cross-country study of emerging market banks. *Management of Environmental Quality*, 30(6),1331-1344.
- Sharipova, N., & Asadova, S. (2023). The role of banks in the modern monetary system. *Procedia of Theoretical and Applied Sciences*, 6(1),55-62.
- Shim, J. (2019). Loan portfolio diversification, market structure and bank stability. *Journal of Banking & Finance*, 104(1),103-115.
- Shinija, A. (2024, November 28). *Descriptive research design*. Retrieved from Research gate: <https://www.researchgate.net/publication>
- Sholikha, O. K. (2021). Cost efficiency, innovation and financial performance of banks. *Journal of Economic and Administrative Sciences*, 39(1),100-116.

- Soewano, N., & Tjahjadi, B. (2020). Measures that matter: an empirical investigation of intellectual capital and financial performance of banking firms in Indonesia. *Journal of Intellectual Capital*, 21(6),1085-1106.
- Strohsal, T. (2017). Bond yields and debt supply: new evidence through the lens of a preferred-habitat model. *Quantitative Finance*, 17(10), 1509-1522.
- Suo, N., & Tanaka, M. (2018). Do market segmentation and preferred habitat theories hold in Japan?: Quantifying stock and flow effects of bond purchases. No. 18-E-16). *Bank of Japan*.
- Syed, M., Badar, A., Gupta, A., & Zheng, C. (2018). Does bank diversification heterogeneously affect performance and risk-taking in ASEAN emerging economies? *Research in International Business and Finance*, 46(1),342-362.
- Tan, Y., & Walheer, B. (2024). Stability and economic performances in the banking industry: The case of China. *The Quarterly Review of Economics and Finance*, 95(1), 326-345.
- Teixeira, J., Vieira, C., & Ferreira, P. (2021). The effects of government bonds on liquidity risk and bank profitability in Cape Verde. *International Journal of Financial Studies*, 9(2),1-23.
- TestBook. (2025, 8 8). *testbook website*. Retrieved from testbook website: <https://testbook.com/key-differences/difference-between-loans-and-advances>
- Thiongo, ', Matata, K., & Kamau, C. (2024). Loan portfolio growth and financial performance of commercial banks in Kenya. *East African Finance Journal*, 3(1),27-47.
- Thumbi, G., & Ragui, M. (2019). Environmental factors and performance of commercial banks in Kenya. *International Journal of Current Aspects*, 3(6),149-175.
- Verdiyanto, R. (2020). An empirical implementation of Markowitz Modern Portfolio theory on Indonesia Sharia equity fund: A case of Bahana Icon Syariah mutual fund. *Journal of Accounting and Finance in Emerging Economies*, 6(4),1159-1172.
- Wang, X., & Cheng, Z. (2020). Cross-sectional studies: Strengths, weaknesses, and recommendations. *Chest*, 158(1),65-71.
- Weber, O. (2017). Corporate sustainability and financial performance of Chinese bank. *Sustainability Accounting, Management and Policy Journal*, 8(3),358-385.
- Witbooi, P., & Muller, G. (2021). An optimal investment strategy in bank management. *Mathematical Methods in the Applied Sciences*, 4(13), 1606-1617.
- Xu, L., Matak, L., Espinosa, C., Dias, R., & Pavel, C. (2025). Utilizing the real estate investment trusts for portfolio optimisation by application of genetic algorithm. *Humanities and Social Sciences Communications*, 12(1), 1-11.
- Yeo, H. (2018). Role of free cash flows in making investment and dividend decisions: The case of the shipping industry. *The Asian Journal of Shipping and Logistics*, 34(2),113-118.

Zverev, A., Mandron, V., Rebrina, T., Mishin, M., Karavaeva, Y., & Trizev, R. (2021). Investment policy of the banking sector: data from Russia. *Amazonia Investiga*, 10(42), 149-162.

APPENDICES

Appendix 1: Data Sheet

Bank name.....

Year/ variables	Investment Property	Government securities	Corporate Investments	Loans and advances	Net income	Total assets
2013						
2014						
2015						
2016						
2017						
2018						
2019						
2020						
2021						
2022						
2023						

Appendix 2: NACOSTI Permit

 REPUBLIC OF KENYA NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION Ref No: 822278	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION Date of Issue: 25/August/2025
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Appendix 3: Research Approval

BOARD OF POSTGRADUATE STUDIES

KCAU/BPS/2025

Date: Friday, May 16, 2025

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: JOHN MWENDWA MUSYOKI - REG NO. 16/02991

It is my distinct pleasure to introduce John Mwendwa Musyoki, a student at our institution pursuing a Master of Science in Commerce (Finance and Investment) degree within the School of Business.

John is conducting research on the topic *"Investment strategies and financial performance of listed commercial banks in Kenya."* which is part of the requirements of the program he is pursuing. The research as well as the data procured thereof shall be used for academic purposes only. Any assistance accorded to him is highly appreciated.

In case of further inquiry, do not hesitate to contact the undersigned.

Yours faithfully,



DR. JACKSON NDOLO

DIRECTOR, BOARD OF POST GRADUATE STUDIES