DIVERSIFICATION, FIRM SIZE AND THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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DECLARATION

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

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And have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

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ABSTRACT

This study explored the effects of diversification strategies on the financial performance of commercial banks in Kenya, focusing on how these strategies help banks manage risk, seize new opportunities, and enhance profitability. The study objectives included the study of the effect of income diversification, geographical diversification, product diversification, and the moderating effect of firm size on the financial performance of commercial banks in Kenya. The theoretical foundation of this study was based on Modern Portfolio Theory (MPT) and the Resource-Based View (RBV). The study employed a mixed-methods research design, integrating both quantitative and qualitative approaches. Quantitative data were collected from the annual financial reports of selected Kenyan commercial banks over five years. This data was analyzed using descriptive and regression analysis to investigate the relationship between diversification strategies and financial performance. indicators. Diagnostic tests of multicollinearity, normality, and heteroskedasticity confirmed the reliability and validity of the collected data. The descriptive statistics revealed the suitability of the sampled respondents. The inferential analysis demonstrated that income diversification, geographical diversification, and product diversification have varying positive and significant relationships with the financial performance of banks, with all four variables having p-values less than 0.05. Additionally, the moderating variable of firm size also demonstrated a significant relationship with the variables. The coefficient of determination, $R^{2,}$ was 0.986, which indicates that the estimated regression equation can predict 98.6% of the variation. The adjusted R^2 was 0.986, which tells us there was a 98.6% variation in the financial performance of the commercial banks due to changes in income diversification, geographical diversification, and product diversification. This suggests that factors other than those under investigation account for 1.4% of the variation in the commercial banks' company sizes. The research recommends that commercial banks should strive to give top priority to integrating and utilizing diversification products, such as income diversification, geographical diversification, and product diversification, to improve the financial performance and profitability of commercial banks in Kenya. The study suggests that research on other determinants of diversification should be revisited to evaluate their effects on corporate performance and profitability in banks.

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DEDICATION

I dedicate this dissertation to my family for their unwavering support and encouragement throughout my academic journey. Special appreciation goes to my mentors and lecturers whose guidance and insight shaped this work. Above all, I thank God for the strength, wisdom, and perseverance to complete this study.

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ABBREVIATIONS AND ACRONYMS

CBK Central Bank of Kenya

CIR Cost to Income Ratio

EPS Earnings Per Share

LDR Loan to Deposit Ratio

LLP Loan Loss Provision

MPT Modern Portfolio Theory

NII Non-Interest Income

NIM Net Interest Margin

P/ER Price Earnings Ratio

RBV Resource Based-View

ROA Return on Assets

ROE Return on Equity

SPSS Statistical Package for the Social Sciences

VIF: Variance Inflation Factor

DEFINITION OF TERMS

Financial performance of commercial Banks refers to the assessment of a company's profitability, efficiency, and overall financial health, typically evaluated through financial metrics such as revenue, profit margins, and return on investment. It reflects how well a company utilizes its resources to generate profits (Okafor & Ezeani, 2021)

Geographical diversification is a strategy where businesses expand their operations or investments across different locations or regions. This approach aims to spread risk, reduce dependence on a single market, and capitalize on new opportunities in various geographical areas (Ibrahim & Ahmad, 2023)

Income diversification is the process of generating multiple sources of income to reduce reliance on a single stream. This strategy helps mitigate financial risk and enhances overall stability, allowing individuals or businesses to better withstand economic fluctuations (Agyemang & Eshun, 2020).

Product diversification is a business strategy that involves expanding a company's product offerings by introducing new products or variations. This can be done to target new markets, meet different customer needs, or reduce dependence on a limited range of products, thereby enhancing overall market presence (Mok & Kwan, 2022).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Regulatory changes have influenced the diversification strategies of banks in Kenya. In response to elevated capital adequacy and risk management standards, financial institutions are compelled to seek out new markets and develop innovative offerings. This aids in managing risks, maintaining financial stability, and ensuring compliance with regulations (Ngugi, 2022).

1.1.1 Global Perspective

Contemporary international research frames bank diversification as a double -edged strategic choice: It can mitigate idiosyncratic risk and create non-interest income streams, but beyond an optional point it may dilute managerial focus and increase complexity, undermining profitability and stability (Haddou, 2025, Addai, 2022). Meta-analytical and cross-country studies reveal heterogenous outcomes: income and asset diversification sometimes improve resilience during normal periods but can reduce profit efficiency or elevate tail-risk when diversification expands into non-core activities without commensurate capabilities (Addai, 2022, Mawutor, 2023). The theoretical tension is well captured by the trade-off between portfolio diversification logic (reducing retuning volatility) and agency/agency -cost arguments portfolio (where complexity raises monitoring costs and risk exposure). This suggests that diversification net effect on financial performance is contingent on how well banks internalize complementary resources – governance, IT, risk management – and on exogenous conditions such as market structure and regulatory frameworks (Haddaou, 2025)

1.1.2 Regional Perspective

At the regional level, evidence highlights technology and market structure as major moderators of the diversification – performance nexus. African banks that have embedded digital platforms and fintech partnerships often convert diversification into sustained growth by reaching underbanked segments and lowering transactions costs (McKinsey, 2024). Nonetheless, continent -wide analysis show that income diversification yields mixed benefits: in some SSA contexts it bolsters stability, while in others it has eroded profit efficiency where banks lack scale or operational sophistication (Mawutor 2023,). The regional fintech boom – despite a finding slowdown after 2022 – illustrates another point: diversification outcomes depend not only on product breadth but on the institution's capacity to exploit scale economies in technology and to navigate evolving regulatory sandboxes (McKinsely, 2024; Financial Times reporting on TyneBank). Thus, in Africa, firm size and digital capability, frequently determine whether diversification produces value or merely complexity

1.1.3 National Perspective

Kenya's banking sector provides a focused laboratory for these dynamics. Empirical studies on Kenyan banks report that diversification (product, income and geographic) can enhance performance I supported by adequate scale and governance, conversely smaller banks that diversify prematurely often see limited profitability gains (Ngware, Mutri & Olweny 2019, Mwihaki, 2022). Yet other Kenya specific work cautions that income-source diversification alone is not a panacea: abset dynamic capabilities and effective risk controls, diversification may increase volatility and weaken profit margins (Mutinda 2025; Muriuki 2025). Recent sectoral evidence also underscores fintech and digital-first entrants as important disruptors: where incumbent Kenyan banks combine diversification

with digital transformation, they tend to preserve market share and improve customer engagement, where they rely only on lateral product expansion without digital investment, diversification produces marginal returns (McKinsely 2024, FT reporting).

Bringing global, regional and national findings into the conversation yields three critical inferences. First firm size acts as a moderator, larger Kenay banks more reliably translate diversification into positive financial performance because they can amortize fixed costs of technology, risk systems and regulatory compliance (Mwihaki 2022). Second, capability complementarity matters; diversification that is digitally enabled and governed by robust risk frameworks tends to add value; diversification that is breadth - only often yields agency costs (Haddou, 2025, Mawutor 2023). Third, contextual factors – market concentration, regulatory sandboxes and funding conditions – shape outcomes: Kenyan banks face both opportunity (large underbanked segments accessible via digital channels) and constraint (capital and regulatory friction that raise the cost of diversification). For policy makers and practitioners, the implications is clear, strategic diversification in Kenya should be incremental, capability driven and scaled -not indiscriminate – so that firm size governance and digital competence jointly enable improvement in financial performance.

The competitive environment is a decisive factor shaping the diversification strategies of Kenyan banks. Market rivalry has intensified with the entry of new players alongside established institutions, pressuring banks to seek alternative growth avenues (Mwaura & Otieon 2021). In response, banks have adopted multidimensional strategies, including geographic expansion, product innovations and the integration of technology (Gikandi & Njega 2021). Yet the relationship between competition and diversification is not unidirectional. While diversification is often framed as a strategic response to competitive pressures, evidence also suggests that heightened rivalry may constrain

banks, capacity to diversify effectively, raising questions about the sustainability of such strategies (Otieno & Mwaura 2022).

Scholarly findings reveal both opportunities and tensions. On one hand, diversification is positioned as a mechanism to reduce overdependence on conventional banking models and to generate new revenue streams. On the other, it may serve as a defensive strategy aimed at neutralizing emerging competitors rather than driving innovations in its own right. This duality highlights the paradox of diversification it is simultaneous a growth strategy and a survival tactic. Furthermore, empirical evidence indicates that diversification outcomes are uneven across institutions. Digital and fintech banks, for example, have demonstrated greater resilience, sustaining or expanding market share by leveraging customer-centric platforms and unique service offerings (Mutua & Ndegwa 2023). This suggests that diversification anchored in technological innovation is ore adaptive in highly competitive contexts than diversifications pursued solely through sectoral or geographic expansion.

Njega (2023) reinforces this argument by showing that banks investing in diversified digital platforms achieve not only market differentiation but also strategic agility in responding to competitive shocks. Taken together, the literature underscores that diversification in Kenya's banking sector is not merely reactive but increasingly contingent upon the ability to embed digital transformation within broader competitive strategies. Consequently, the critical challenge for banks lies in aligning diversification with long -term performance objectives rather that treating it as a short-term buffer against competition.

The competitive landscape of the Kenyan banking sector has compelled financial institutions to explore diversification strategies. Diversification enables banks to navigate

competition, tap into new markets, and develop innovative products, enhancing their financial performance and market standing (Gikandi & Njenga, 2023; Mutua & Ndegwa, 2023). Diversification has emerged as a crucial approach for Kenyan banks to evolve and maintain stability in light of external pressures. Initially, policymakers and bank managers need to assess diversification activities to formulate effective strategies for the banking system in Kenya (Kenya Bankers Association, 2022). This article investigates the impact of diversity on the financial performance of commercial banks in Kenya.

1.1.1 Diversification

Banking diversification is systematically expanding a bank's businesses beyond lending and deposit-taking. This technique improves financial stability, resource management, and profitability. Diversifying helps banks become less dependent on a particular business line or market (Smith, 2021). Product diversification expands a bank's financial offerings. Loan interest was traditionally banks' main source of income. Many banks have looked to other revenue streams due to shifting interest rates and increased competition (Johnson & Lee, 2019). Banking may expand into insurance, financial services, wealth management, and digital banking to attract more customers and generate additional income (Miller & Roberts, 2020). Diversification creates new revenue streams and helps banks meet diverse consumer demands, increasing satisfaction and loyalty (Adams & Brown, 2022).

Geographical diversification involves expanding a bank into new nations. By diversifying across markets, banks can reduce economic downturn risks (Nguyen & Patel, 2021). Banks can avoid localized risks and capitalize on regional growth by operating in several economic contexts (Wilson & Clark, 2022). A bank that operates in both emerging and established areas may offset losses in one with gains in another,

stabilizing its financial performance (Johnson, 2023). However, managing cultural variations and varied regulatory contexts are obstacles of this technique (Smith, 2021). Income diversification is another key bank strategy. This requires producing revenue from sources other than loan interest. Banks can do this by charging for transaction processing, consulting services, and trade finance (Lee & Chen, 2021). Foreign currency and derivatives trading can also provide profits (Garcia, 2022). Diversification reduces banks' reliance on a single income source, improving profitability and financial stability and helping them weather economic swings (Brown, 2023).

Globally, according to Barth et al. (2019), banks in developed economies such as the US and EU are required by regulatory frameworks to maintain sufficient capital levels, effectively manage risks, and actively pursue diversification opportunities. Because of this, commercial banks have increasingly adopted diversification techniques to enhance financial performance and reduce risk in this evolving environment. To reduce risk and increase profitability, large financial institutions like Citibank and JPMorgan Chase in the US have successfully expanded their operations to other parts of the world (Ghosh & Saeed, 2022).

Financial institutions in emerging economies, such as India and China, have also adopted diversification strategies, venturing into retail banking, fintech technologies, and foreign markets. This has helped companies reach a wider audience, which in turn has increased their revenue and reduced their exposure to fluctuations in the home economy (Ying, 2020). Regionally, prominent Kenyan financial behemoths Equity Bank and KCB Group have formed substantial partnerships to expand their influence in Rwanda, Tanzania, and Uganda. Their expansion has enabled them to reach more customers and provide more services, such as digital banking and loan provision, therefore strengthening their financial status (Miriuki, 2021).

Despite efforts by the Eastern African Community (EAC) to standardize banking norms, each member state continues to have its own set of legislation that banks must follow. Mwangi and Kimani (2021) notice that when Kenyan banks expand into neighboring countries, operating expenditures may rise due to their obligation to obey local requirements, such as liquidity rules and capital adequacy standards. Kenyan banks, for example, can discover new opportunities for client expansion and income production in countries with high future development potential, such as Rwanda and Uganda (Wainaina & Kariuki, 2021). These institutions may improve their financial status by reducing their reliance on the Kenyan economy and diversifying their risks. Also, researchers have argued that banks may increase customer access to banking services and generate new revenue streams by expanding their service offerings to marginalized communities via mobile banking, which promotes financial inclusion (Muthoni & Njoroge, 2020). Given the growth of mobile usage in East Africa, Kenyan banks have a considerable advantage in providing digital banking services, which helps explain their financial performance.

Locally, bank assurance products are offered by several Kenyan banks in partnership with insurance firms. These collaborations boost banks' non-interest income by generating insurance commissions. Wealth management and investment services are key growth sectors for banks targeting high-net-worth individuals and corporate clients, diversifying revenue (Nyakundi & Mwangi, 2019). This product diversification strategy helps banks improve financial performance and customer value.

Kenyan bank managers and policymakers must analyze the effects of diversification strategies on financial performance to develop solutions that address the sector's particular problems and possibilities (Kenya Bankers Association, 2022). This study

examines these dynamics and how diversification tactics affect Kenyan commercial banks' financial performance.

1.1.2 Financial Performance

Financial performance is a comprehensive examination of an organization's condition in key areas such as assets, liabilities, equity, revenues, expenses, and profitability. Return on Assets is often used to measure financial performance, whereby a higher ROA often indicates better performance in transforming resources into earnings (Djalilov & Piesse, 2019). Within the banking business, understanding how successfully management uses resources for profitability is critical. Return on equity, on the other hand, compares a bank's earnings to the equity of its shareholders. Xu and Zhou (2021) claim that it demonstrates the bank's successful utilization of shareholder funds to generate profits. Net Interest Margin (NIM) is a ratio that compares a bank's earning assets to the difference between loan interest revenue and deposit interest paid. According to Iannotta et al. (2021), NIM is critical for determining a bank's fundamental profitability since it demonstrates how successfully its lending and borrowing operations are conducted.

The current ratio assesses a bank's ability to use its short-term assets to repay short-term debt. Adusei (2018) suggests that maintaining good liquidity, as demonstrated by this percentage, can help a bank become more stable. Efficiency ratios evaluate a bank's use of resources and operations to generate revenue while keeping spending under control. Also, the cost-to-income ratio (CIR) is a key indicator of operational performance. According to Mollah and Zaman (2019), a lower CIR indicates that a bank is better at keeping expenditures in line with income, which is desirable for profitability. The asset turnover ratio measures a bank's income-generating efficiency to its resources.

According to Xu and Zhou (2021), higher ratios reflect greater resource use and are an important statistic of a bank's operational performance.

Diversification allows banks to achieve a more balanced revenue composition by incorporating many income streams, including conventional interest income, fees, and trading gains. This balanced strategy provides a steadier financial foundation and allows banks to manage fluctuations in any one income stream (Lee, 2019). Overall, variety enhances stability, profitability, and growth, which has a significant impact on commercial banks' financial performance. Kenyan banks may better handle risks, achieve a balanced income structure, and gain a competitive advantage in a changing market environment by using diversification approaches efficiently (Davis & Thompson, 2020; Nguyen, 2022).

1.1.3 Diversification, Firm Size, and Performance of Commercial Banks

Over the years, Kenyan banks have faced increasing pressure to enhance their profitability and manage risks amid challenges such as intense competition, regulatory constraints, and changing customer expectations. Diversification, particularly in terms of income streams, products, and geographical presence, has emerged as a strategic approach to achieving these objectives (Ngware & Muluka, 2023; CBK, 2021).

Diversification strategies allow banks to spread risk across different revenue sources and business segments. Kenyan banks have increasingly adopted diversification by venturing into areas such as bancassurance, digital banking, and regional expansion. Research suggests that income diversification, by including non-interest income streams like transaction fees and asset management, enhances financial performance while reducing dependence on volatile interest income (Makokha et al., 2016). However, empirical evidence is mixed; while some studies report positive outcomes, others identify

potential drawbacks such as higher operational costs and managerial inefficiencies (Berger et al., 2010).

Firm size is another critical factor influencing the performance of commercial banks. Larger banks often benefit from economies of scale, better access to capital markets, and robust technological infrastructure. In Kenya, Tier 1 banks like Equity Bank, KCB Group, and Cooperative Bank have shown greater success in implementing diversification strategies compared to smaller banks, which face resource constraints and higher risks (CBK, 2021). However, smaller banks may benefit from niche strategies and local market focus, complicating the relationship between size and performance (Kamun & Olweny, 2023). The performance of commercial banks in Kenya has been shaped by several structural and economic changes. Regulatory interventions such as the 2016 interest rate cap significantly affected profitability by limiting the income banks could generate from loans. Between 2013 and 2017, return on equity in the sector fell from 29.2% to 20.68% (CBK, 2018). Diversification has been viewed as a viable solution to these challenges, but its effectiveness remains under-researched, particularly in Kenya's unique financial environment. While global studies highlight mixed outcomes, local research often lacks comprehensive data, leaving gaps in understanding the interplay of diversification, size, and performance (Ngware & Muluka, 2023; Wahinya et al., 2023).

1.1.4 Commercial Banks in Kenya

A commercial bank is a financial organization that accepts deposits and provides loans to people, businesses, and government agencies. These banks typically handle common banking tasks, including managing savings and checking accounts, issuing credit and debit cards, and offering personal and business loans. Commercial banks' primary goal is to make money through interest on loans and other financial transactions. They also play an important role in the economy by providing liquidity and facilitating commerce and investment (Mishkin, 2021; Saunders & Cornett, 2019).

In Kenya, where the banking sector is continuously moving due to technology improvements and shifting client expectations, a diverse income structure allows banks to adjust to market changes while maintaining consistent performance. By providing a diverse range of products and services, banks may better match their income streams with consumer wants and market developments (Ochieng & Kimani, 2023). When banks diversify their activities, they spread their risk across many revenue streams and marketplaces, minimizing their reliance on any one sector. Banks, for example, might mitigate possible income decreases from traditional lending activities by offering insurance or investment products (Nguyen, 2022).

This strategic growth allows banks to maintain financial stability despite economic volatility (Miller, 2021). In unpredictable economic environments, diversification enables banks to hedge against local economic shocks. For example, a bank that operates in numerous East African nations might offset the impact of downturns in one market with strong performance in another (Davis & Thompson, 2020). Geographical diversification allows banks to enter new markets and capitalize on growth prospects. Banks can maintain their growth trajectories and strengthen their market position by constantly seeking new

possibilities and refining their business models (Morris & Wright, 2024). This technique allows banks to stay resilient and competitive in the long run (Davis & Thompson, 2020). However, successful diversification includes tackling related problems and achieving strategic alignment with the bank's overall aims and market conditions (Nguyen, 2022).

1.2 Statement of the Problem

The financial performance of commercial banks in Kenya has deteriorated in recent years, raising concerns about the sectors' long-term stability and competiveness. Profitability indicators such as return on assets and return on equity declined significantly between 2013 and 2017, with ROA failing from 4.7% to 3.33% and ROE from 29.2% to 20.68 (central bank of Kenya, 2018). Policy interventions such as the 2016 interest rate cap further compressed margins, while institutional failures – exemplified by the collapse of imperial Bank and Chase Bank – highlighted structural vulnerabilities linked to liquidity crises and weak strategic responses (Wahinya et al., 2023)

Diversification across income, products and geographical markets – has been advanced as a strategic tool for stabilizing revenues and mitigating systematic risks. Empirical evidence demonstrates that diversification can enhance performance by buffering banks against financial shocks (Makokha et al., 2016, Ngware & Muluka 2023). However, the global evidence base is inconclusive, while some studies report positive associations (Damankah et al., 2015, Sigve & Lars 2017), others reveal negative effects, as in the case of Chinese banks where diversification diluted efficiency (Berger et al., 2010). This divergence underscores the need for context -specific investigations, especially in emerging markets like Kenya.

Despite its increasing adoption, the diversification-performance relationship in Kenya remains underexplored. Existing studies are fragmented, often focusing on individual

banks or relying solely on quantitative indicators, with limited attention to qualitative insights such as managerial perspectives and competitive dynamics (Kanun & Olweny 2023). This narrow lens constrains the development of a robust conceptual frameworks linking diversification strategies to core performance measures such as strategies to core performance measures such as ROA and ROE.

Give the central of commercial banks in financing Kenya's Vision 2030 development agenda, understanding whether and how diversification strategies influences strategies financial outcomes is both an academic and policy strategies to core performance measures such as ROA and ROE. Given the central role of commercial banks in financing Kenya's Vision 2030 development agenda, understanding whether and how diversification strategies influence financial outcomes is both an academic and policy imperative. Addressing this gap requires a comprehensive, sector-wide analysis that integrates financial metrics with strategic and contextual dimensions to generate actionable insights for practitioners, regulators, and policymakers.

1.3 Research Objectives

1.3.1 General Objective

To evaluate the effect of Diversification on the Financial Performance of Commercial Banks in Kenya.

1.3.2 Specific Objectives

i. To determine the effect of income diversification on the financial performance of commercial banks in Kenya.
ii. To examine the effect of geographical diversification on the financial performance of commercial banks in Kenya.

iii. To evaluate the effect of product diversification on the financial performance of commercial banks in Kenya.

iv. To assess the moderating effect of firm size on the relationship between diversification and financial performance of commercial banks in Kenya.

1.4 Research Questions

i. To what extent does income diversification influence the financial performance of commercial banks in Kenya?

ii. What is the effect of geographical diversification on the financial performance of commercial banks in Kenya?

iii. How does product diversification influence the financial performance of commercial banks in Kenya?

iv. What is the moderating effect of firm on the relationship between diversification and the financial performance of commercial banks in Kenya?

1.5 Significance of the Study

The study is important as it seeks to shed light on the relationship between diversification influence the financial performance of commercial banks in Kenya. The research output is of great use to the following public institutions:

1.5.1 Commercial Banks in Kenya

This research gives helpful information to the Commercial Banks in Kenya about how diversification can greatly affect their financial performance and cause great success to the organization. Learning about diversification can make employees more motivated and productive at their workplace, this motivation may later on translate into profits and growth of the organization.

1.5.2 Researchers

This research adds more information to what we already know about diversification on the Financial Performance of Commercial banks. This study will focus specifically on Commercial Banks in Kenya. The study will give a base for more research and academic information on the effects of diversification on the commercial banks' financial performance. Researchers and scholars, and students can use the findings to study more on the effect of diversification on the financial performance of commercial banks in Kenya.

1.5.3 Policy Makers

This research highlights the importance of diversification on the financial performance of commercial banks in Kenya. The information therein can help the government come up with plans and policies that will support the growth of the Commercial Banks in Kenya.

1.6 Scope of the Study

The research was confined to the commercial banks in Kenya. The independent variables were income diversification, geographical diversification, and product diversification, while the study’s dependent variable was the financial performance of commercial banks in Kenya. Firm size was used as the study’s moderating variable. The study was conducted between November 2024 and May 2025.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a summary of information from different authors about the effect of diversification on the financial performance of commercial banks in Kenya. In this chapter, we shall be able to discuss the theories that support this study.

2.2 Theoretical Review

The theoretical review serves to guide and support the study as it finds answers to the underlying questions. This provides a structure that helps in approaching the study in a wholesome manner. This study was anchored on four theories discussed below.

2.2.1 Modern Portfolio Theory

Modern Portfolio Theory (MPT), developed by Harry Markowitz in 1952, transformed investment strategies by emphasizing portfolio risk and return over individual assets. Before the introduction of MPT, investors often focused on individual assets, overlooking the overall risk associated with their portfolios. Markowitz's theory emphasized that the integration of different assets can lead to a decrease in overall portfolio risk, especially via diversification, since assets with low or negative correlations can counterbalance each other's price fluctuations (Markowitz, 2019). MPT categorizes risk into two types: systematic risk, which impacts the whole market and cannot be mitigated by diversification, and unsystematic risk, which pertains to specific assets and can be reduced through diversification. The theory indicates that combining various assets in portfolios can mitigate unsystematic risk, leading to more consistent returns over time (Elton et al., 2018).

An essential component of MPT is the efficient frontier, illustrating portfolios that provide the maximum return for a specified level of risk. Portfolios on this frontier are deemed optimal, as there is no other combination of assets that can yield higher returns without elevating risk. Portfolios that fall below the frontier are deemed suboptimal, as they yield lower returns for an equivalent level of risk. This concept aids investors in making well-informed choices concerning the balance between risk and return (Fabozzi et al., 2020). MPT also presents mean-variance optimization, a quantitative approach that assists investors in weighing an asset's anticipated return (mean) against its fluctuations (variance). This method determines the optimal mix of assets to enhance anticipated returns for a given risk level or to reduce risk for a targeted return level. This procedure assesses possible portfolios and identifies the optimal distribution of assets (Bodie et al., 2018).

A fundamental insight of MPT is the relationship between risk and return. The theory posits that the pursuit of greater returns necessitates the acceptance of increased risk. Nonetheless, by employing diversification strategies, one can effectively reduce the overall risk associated with a portfolio while maintaining a favorable return profile. By maintaining a portfolio with diverse risk profiles and correlations, individuals can attain more consistent and stable returns throughout the investment period. While it is impossible to entirely eliminate risk, MPT indicates that it can be considerably minimized (Fabozzi et al., 2020). MPT has significantly shaped the evolution of various financial models, including the Capital Asset Pricing Model (CAPM), which links an asset's anticipated return to its systematic risk, indicated by the beta coefficient. This model finds extensive application in asset pricing, portfolio management, and performance evaluation, establishing it as one of the most significant theories in contemporary finance (Sharpe, 2020).

Although MPT has gained broad acceptance, it has encountered scrutiny regarding its foundational assumptions, especially the notions that markets operate with perfect efficiency

and those investors consistently behave in a rational manner. Some analysts contend that investors frequently display irrational behavior, leading to inefficiencies in the markets. Furthermore, the dependence on historical data for forecasting future risks and returns has come under scrutiny, as previous performance does not necessarily ensure future results (Elton et al., 2018; Bodie et al., 2018). In light of these critiques, MPT has evolved and expanded, resulting in contemporary models such as Post-modern Portfolio Theory (PMPT) and behavioral finance, which incorporate psychological elements and market inefficiencies (Sharpe, 2020).

This study utilizes MPT to analyze the impact of diversification, as a strategic decision made by commercial banks in Kenya, on their risk and return profiles, which in turn affects their financial performance. This theory serves as a framework for analyzing the financial performance of diversified banks in Kenya in comparison to those with limited diversification, while considering the balance between risk and reward.

2.2.2 Agency Theory

Agency Theory was introduced in 1976 by Jensen and Meckling, who posited that a conflict of interest arises between two parties: the principal and the agent, with the agent being the party engaged by the principal to act on their behalf (Jensen & Meckling, 1976). Agency theory examines the possible conflicts of interest that may arise between shareholders and managers. This theory posits that managers may pursue diversification strategies mainly to serve their own interests, like minimizing personal risk or bolstering job security, instead of focusing on maximizing shareholder value (Eisenhardt, 1989). This behavior may result in excessive diversification, causing a bank to venture into unrelated areas that might not yield adequate returns to offset their heightened complexity and expenses (Harris & Collins, 2023). Furthermore, it is possible for managers to participate in "empire-building" by acquiring

businesses that enhance their own power and financial rewards, instead of prioritizing initiatives that provide value to shareholders (Gordon & Fisher, 2024).

The concept of agency theory highlights these possible conflicts within the framework of diversification. For example, it is possible that managers opt to expand into unrelated industries as a means to protect their roles or reduce personal risk, despite the fact that such strategies may not substantially benefit shareholders (Jensen & Meckling, 1976). Additionally, the pursuit of acquisitions by managers can lead to empire-building, as they may focus on enhancing their own status and earnings, often at the expense of the company's financial well-being (Shleifer & Vishny, 1997). Agency theory, although commonly utilized to examine the dynamics between principals (owners) and agents (managers), has faced numerous critiques. The critiques emphasize the shortcomings and the elements it fails to address in comprehending organizational behavior, particularly regarding its relevance to the impact of diversification on financial performance in commercial banks in Kenya.

Overemphasis on conflicts of interest. Agency theory faces criticism for its strong focus on the conflicts of interest that arise between shareholders and managers. The assumption is that managers are mainly driven by their interests and may act in ways that oppose the wishes of shareholders. Nonetheless, studies indicate that in numerous instances, the objectives of managers and shareholders can coincide, especially when robust governance mechanisms are established. This critique underscores the tendency of agency theory to overlook scenarios in which common goals and a robust corporate culture inherently align the interests of both parties (Shapiro, 2020). Narrow perspective on incentives. The theory primarily focuses on financial and economic incentives as the key motivators of managerial behavior, frequently neglecting other possible factors like corporate values, ethical considerations, and long-term strategic goals. For example, investigations have indicated that non-financial factors, like ethical leadership or corporate social responsibility, significantly

influence managerial decisions (Roberts & Jones, 2021). This critique indicates that agency theory fails to fully account for the various factors that can impact managerial behavior, particularly in contexts such as diversification.

Streamlined comprehension of leadership conduct. Agency theory posits that managers primarily operate based on self-interest, presenting a rather reductionist perspective on human behavior. Nevertheless, research indicates that the decision-making process of managers is shaped by a range of factors, such as career advancement, professional standing, and the fulfillment derived from meeting organizational objectives (Singh & Bhandari, 2019). This indicates that the existing framework does not adequately consider the intricate motivations that may lead managers to prioritize the interests of shareholders. Insufficient recognition of the value of trust and collaboration. Agency theory posits that a basic distrust exists between shareholders and managers, leading to the need for oversight and regulation. Nonetheless, studies show that fostering trust and collaboration between principals and agents can diminish agency costs and result in improved outcomes (Carter, 2020). In environments characterized by elevated trust levels, the expenses associated with oversight tend to decrease, allowing for more effective implementation of decisions like diversification, thanks to a collective dedication to the organization's objectives.

Relevance in intricate institutions. Another critique is that agency theory may not effectively elucidate behavior in contemporary corporations, which exhibit more intricate relationships involving various stakeholders. Jones and Davies (2019) contend that the principal-agent model fails to adequately reflect the complexities present in large organizations, where managers are required to consider the interests of various stakeholders, including regulators, employees, and customers. This constraint is especially significant in sectors such as banking, where leaders navigate the expectations of shareholders alongside regulatory and market pressures. Neglecting the importance of collective decision-making.

Agency theory frequently emphasizes the decision-making processes at the individual level involving shareholders and managers. Nonetheless, corporate decisions, particularly those related to strategies like diversification, are often determined by collective entities such as management teams or boards of directors (Jones & Patel, 2018). In these situations, the focus of agency theory on individual choices is inadequate, as group decision-making brings in further complexities, including negotiation and compromise among members of the group. Fixed perspective on principal-agent dynamics.

The theory posits that the relationship between principals and agents remains constant; however, in practice, this relationship develops and changes over time. As trust is cultivated between managers and shareholders, and as they adjust to evolving situations, there is potential for a reduction in agency costs (Kim & Lee, 2022). In rapidly evolving sectors such as banking, where market conditions and regulations are in constant flux, the fixed assumptions of agency theory render it less responsive to the actual development of these relationships.

Overlooking external influences. Agency theory primarily examines the internal interactions between principals and agents, frequently neglecting the impact of external elements like competition, regulation, and macroeconomic conditions on managerial choices. Azzam (2023) emphasizes that external market conditions, including regulatory changes, play a crucial role in assessing the impact of diversification on financial performance. Neglecting these external influences results in agency theory offering an inadequate understanding of corporate strategies such as diversification. Emphasis on immediate outcomes in management rewards. The focus of agency theory on immediate rewards may lead managers to prioritize decisions that enhance short-term financial results, potentially undermining long-term sustainability. This narrow perspective can result in perilous strategies, like excessively aggressive diversification into unstable markets, potentially jeopardizing long-term financial

stability (Chen & Huang, 2021). This critique underscores the danger of placing excessive focus on immediate performance indicators within corporate governance.

Agency Theory is pertinent to this study as it examines the potential conflicts between managers and shareholders in Kenyan commercial banks and their influence on diversification decisions. The theory will inform the analysis of how managerial incentives and agency issues influence the strategic decisions regarding diversification and the consequent effects on the financial performance of the banks.

2.2.3 Resource Based View Theory

The Resource Based View Theory emerged from Jay Barney's 1991 paper titled “Firm resources and sustained competitive advantage.” While the theory emerged from the collective efforts of numerous scholars, it was Jay Barney's contributions that established the groundwork for its broad acknowledgment. The Resource-Based View (RBV) theory emphasizes the critical importance of a company's unique collection of resources and capabilities in creating a lasting competitive edge. This theory posits that a company's internal resources and distinctive capabilities are crucial for attaining exceptional performance and sustaining a competitive advantage, contrasting with conventional strategies that emphasize external market factors (Barney, 1991).

The Resource-Based View (RBV) framework offers valuable insights into how diversification affects the financial performance of commercial banks, particularly in the context of Kenya. The RBV theory posits that a firm's competitive edge stems from its capacity to leverage internal resources that are valuable, rare, inimitable, and non-substitutable (VRIN) (Barney, 1991). Diversification across various financial services or markets has the potential to enhance the financial performance of Kenyan commercial banks, provided that these strategies are in harmony with the institution's distinct internal

capabilities. Diversification in Commercial Banking. In the banking sector, diversification can manifest in various ways, including the introduction of new product lines, services, or the exploration of different geographical markets. Kenyan banks frequently broaden their scope by providing supplementary services such as investment banking, insurance, and mobile banking, or by extending their reach into regional markets throughout Africa (Kavulya & Muturi, 2018). When these strategies are in harmony with the banks' internal strengths, including current technology and workforce capabilities, there can be an enhancement in financial performance.

Based on the RBV, the success of diversification is enhanced when it utilizes a company's internal resources effectively. For instance, a financial institution equipped with robust technological frameworks might expand into mobile banking services, thus reaching a wider customer demographic and improving profitability (Nyambura & Jagongo, 2020). Furthermore, a financial institution with a well-recognized brand and solid market position has the potential to diversify into wealth management or insurance, leveraging its reputation to build customer trust and develop new sources of revenue. Technology serves as a vital asset for strategic advantage. A notable aspect of diversification in Kenya is the implementation of mobile banking technologies, exemplified by the popular M-Pesa platform. This technological innovation has significantly altered the financial sector, allowing banks to broaden their services and enhance banking accessibility for numerous Kenyans (Mwaniki, 2021). Financial institutions that made early investments in mobile banking infrastructure have successfully utilized their technological resources to broaden their offerings and enhance financial results (Karanja & Oluoch, 2021). This indicates that financial institutions equipped with strong internal technology capabilities are more likely to realize the economic advantages of diversification.

Possible Dangers of Inconsistent Diversification. Nonetheless, the RBV suggests that venturing into unfamiliar or highly competitive markets without sufficient internal resources may pose significant risks. For example, Kenyan banks that seek to expand into areas like insurance or investment banking without adequate expertise and resources might encounter inefficiencies and increased operational risks, which could ultimately impact their financial performance (Ombaka, 2019). This emphasizes the significance of ensuring that diversification strategies are in harmony with the bank's current internal resources. Empirical Evidence Supporting Resource-Based View in Diversification. Recent investigations carried out in Kenya are consistent with the RBV theory. Njeru and Kamau (2022) discovered that banks that expanded into services such as micro-financing and wealth management saw enhanced financial performance, particularly when these new initiatives were backed by the bank's fundamental capabilities. Ngugi and Kinyua (2019) concluded that institutions with advanced digital infrastructure were able to diversify more successfully into mobile banking, resulting in increased profitability.

In a similar vein, Kavulya and Muturi (2018) contend that the successful diversification of Kenyan banks is frequently propelled by their capacity to utilize existing resources such as human capital, technological capabilities, and customer relationships. Conversely, institutions that do not synchronize their diversification approaches with their internal capabilities often encounter challenges in achieving profitability and are exposed to increased market risks. In conclusion. In conclusion, the RBV theory offers a valuable lens for examining the impact of diversification on the financial performance of commercial banks in Kenya. The theory indicates that financial institutions tend to gain more from diversification when they efficiently leverage their internal assets, including technology, brand reputation, and skilled workforce. Aligning diversification with these resources can enhance profitability and market share, whereas diversification lacking sufficient internal

support may result in adverse financial consequences. In the context of Kenyan banks, especially given the swiftly evolving financial landscape, the capacity to efficiently utilize internal resources for diversification is essential for ongoing financial prosperity.

The resource-based view suggests that diversification enables companies to leverage their core strengths in new markets or product categories. This approach allows companies to leverage their distinct resources and capabilities across various contexts, thus capitalizing on new opportunities and strengthening their competitive edge (Nguyen & Pham, 2024). Diversification contributes to expanding the firm's market presence and strengthening its overall competitive stance. Effective diversification utilizes current resources and core strengths to generate value in new areas. For example, a company with robust technological strengths may venture into new sectors where its technology offers a considerable advantage, thereby enhancing its competitive position (Huang & Wang, 2021). This method not only aligns with the organization's strategic objectives but also enhances its enduring viability. Effective diversification necessitates a thoughtful alignment between a company's current strengths and the requirements of emerging markets or product sectors. Organizations need to guarantee that their resources and capabilities are efficiently employed and harmonized to address the particular demands of the emerging field (Zhang & Zhou, 2023). Optimal oversight of these resources is essential for unlocking the potential advantages of diversification.

The Resource-Based View is pertinent to this study as it elucidates how the internal resources and capabilities of commercial banks in Kenya influence their capacity to diversify and attain improved financial performance. This theory will direct the investigation into the correlation between banks with robust resource bases and their success in diversifying operations, ultimately contributing to improved financial performance within the Kenyan banking sector.

2.2.4 Transaction Cost Economics Theory

A notable theory regarding firm size is the Transaction Cost Economics (TCE) theory, initially presented by Ronald Coase in 1937 and subsequently developed by Williamson in 1985. TCE suggests that companies expand in size to reduce the transaction costs linked to market exchanges. By internalizing specific transactions, companies eliminate expenses associated with negotiating, monitoring, and enforcing contracts in an external market. Consequently, companies weigh the expenses associated with internal organization against the advantages of minimizing market transaction costs, which ultimately influences their ideal size (Coase, 1937; Williamson, 1985).

The TCE framework highlights that a firm's size is determined by the balance between transaction costs and internal operational efficiency. Larger firms can mitigate reliance on external parties by overseeing their supply chains internally, thereby minimizing disruptions and ensuring stability (Williamson, 1985). This method proves to be especially advantageous in dynamic settings characterized by frequently shifting market conditions (Barney & Hesterly, 2012). As organizations expand, they may encounter diminishing returns stemming from rising bureaucratic expenses and complexity, which can offset the advantages of lower transaction costs (Joskow, 1987).

The TCE theory holds significant importance for the operational effectiveness of commercial banks. Banks, functioning as financial intermediaries, face transaction costs associated with managing relationships with depositors, borrowers, and various stakeholders (Williamson, 1988). Larger banks frequently internalize these processes to attain economies of scale and scope, thereby decreasing per-unit transaction costs (Nguyen, 2020). The capacity to reduce costs allows for the provision of competitive interest rates, risk diversification, and improved profitability, highlighting the relationship between the size of a firm and its performance in the banking sector (Allen & Santomero, 2001)

Furthermore, TCE elucidates the rationale behind banks incorporating a range of financial services, including loans, savings, and investments, within their organizational frameworks. By doing so, they reduce transaction costs related to coordinating these activities among different entities (Berger & Humphrey, 1997). For instance, financial institutions with substantial asset bases have the capacity to invest significantly in cutting-edge technologies, allowing them to optimize operations and offer customized financial solutions to clients at reduced costs (DeYoung, 2013). The enhancement of operational efficiency plays a crucial role in elevating customer satisfaction and strengthening market competitiveness (Boot, 2000; Claessens et al., 2001).

Nonetheless, the correlation between size and performance is not straightforward. Excessive growth can result in inefficiencies and increased administrative costs, as evidenced by certain over-expanded banks during financial crises (Demirgüç-Kunt & Maksimovic, 1998). Therefore, while TCE emphasizes the benefits of internalizing transactions, it also points out the necessity of maintaining an optimal size to effectively balance costs and benefits (Nguyen, 2020). In conclusion, the TCE theory offers a comprehensive framework for analyzing firm size and its effects on organizational performance. Within the framework of commercial banks, it elucidates how the internalization of processes and the attainment of economies of scale contribute to improved efficiency and profitability. Striking a balance between growth and operational complexity is essential for sustainable performance in the dynamic banking sector.

2.3 Empirical Review

2.3.1 Income Diversification and Financial Performance

Income diversification is a strategy that commercial banks are increasingly implementing to improve financial performance and reduce income risks. In Kenya, financial institutions have utilized this strategy to ensure revenue stability, especially as conventional interest income streams encounter fluctuations. This review examines empirical studies regarding the effects of income diversification on the financial performance of commercial banks in Kenya, while also making comparisons with findings from around the world. Income diversification encompasses the process of creating revenue streams from unconventional sources, including fees, commissions, and trading profits. Mwangi and Mboya (2020) observed that Kenyan banks have broadened their scope into these non-interest sectors in reaction to economic transformations and regulatory adjustments. This transition has been especially important during times when interest rate income encountered limitations, rendering non-interest income sources essential for maintaining consistent financial performance. This observation aligns with the findings of DeYoung and Torna (2017), highlighting that bank involved in non-interest income activities tend to exhibit greater resilience during economic disruptions.

In Kenya, Gakure and Wanjohi (2019) conducted an examination of major banks and discovered that those with a greater share of non-interest income exhibited more stable financial outcomes. This indicates that diversifying income sources can mitigate reliance on a singular revenue stream, thereby enhancing financial stability. There is considerable evidence indicating the connection between income diversification and enhanced profitability. Kamau and Otieno (2021) found that Kenyan banks with varied revenue sources, including asset management and insurance, realized greater returns on equity (ROE) and assets (ROA). The findings indicated that banks with diversified operations exhibited a more favorable risk-

return profile than those dependent exclusively on interest income. In a similar vein, Muriuki (2019) observed that Kenyan banks engaging in the insurance and investment sectors experienced significant growth in profitability. The analysis conducted on data from commercial banks over a five-year period revealed that income diversification played a crucial role in explaining a substantial portion of the variance in financial performance.

Diversifying income sources is linked to a decrease in financial risk and an enhancement of stability. Kibet and Obiero (2020) discovered that Kenyan banks with diversified income streams, including foreign exchange trading and investments, demonstrated a greater capacity to sustain profitability amid economic challenges. Kiragu and Kirimi (2018) corroborated these findings, demonstrating that diversification into non-interest income sources resulted in reduced earnings volatility during times of economic uncertainty, including the interest rate capping period. While income diversification offers various advantages, it can also pose certain difficulties. Mwangi and Mutua (2021) noted that although diversification led to higher revenues, an overabundance of diversification might result in inefficiencies. Financial institutions that diversify their operations excessively encounter difficulties in efficiently overseeing a range of activities, potentially harming their overall profitability. Kimani and Macharia (2019) highlighted this perspective, indicating that excessive diversification could undermine essential banking functions and result in operational inefficiencies.

In their global study, Elsas, Hackethal, and Holzhäuser (2020) observed that although income diversification typically improved bank performance, it might also result in diminishing returns because of heightened operational complexities. The results indicate that although diversification offers advantages, it requires meticulous management to prevent operational challenges. Across the globe, investigations into income diversification have yielded varied outcomes. DeYoung and Rice (2020) emphasized that financial institutions in

Europe and the U.S. that pursued income diversification typically outperformed those that concentrated solely on traditional interest income. Nonetheless, the degree of these advantages differed according to regulatory frameworks and market dynamics.

In the context of Kenya, Wanyama and Gathungu (2021) observed that banks that adjusted to regulatory changes, like interest rate caps, by diversifying their operations were more effectively equipped to manage economic fluctuations. Overall, findings indicate that income diversification is essential for improving the financial performance of Kenyan commercial banks. The presence of varied income sources enhances profitability and strengthens financial stability; however, it is crucial to handle diversification with care to prevent possible inefficiencies. The effectiveness of diversification strategies is significantly shaped by the regulatory and economic landscape within which banks function.

2.3.2 Geographical Diversification and Financial Performance

Geographical diversification is a technique used by banks to spread their activities over several areas or nations in an effort to lower localized risk exposure and enhance general financial performance. Operating in several markets allows banks to use various economic situations and minimize the impact of local economic downturns. Based on empirical research done recently, this paper investigates how geographical diversification affects the financial situation of Kenyan commercial banks. Geographical diversity allows banks to operate in many areas, therefore lowering the risks connected with reliance just on one market. Banks in Kenya have been using this strategy more and more to reach new markets and balance income flow outside of big cities. Karanja and Muriithi (2022) point out that this approach enables banks to take advantage of fresh income sources and control regional economic inequalities. Banks lower the risks connected to particular area economic swings by spreading activities.

Globally, then, studies of geography likewise confirm the advantages of geographical heterogeneity. Laeven and Levine (2019), for instance, noted that because of their varied revenue sources and risk exposure, banks with operations across several nations have a stronger capacity to resist economic fluctuations. This fits the Kenyan situation, where reaching out to areas outside the main cities has become a crucial strategic action towards development and financial stability. Geographic diversification typically increases profitability, according to data. Kenyan banks with large branch networks throughout the nation showed better profitability measures like return on equity (ROE) and return on assets (ROA), according to Njoroge and Wambua (2021). The banks' capacity to profit from economies of scale and leverage various economic conditions explains mostly this enhanced performance.

Kiragu and Wanjohi (2020) supporting these results observed a favorable correlation between branch growth and financial performance. According to their research, Kenyan banks with more global presence can leverage chances for development in several areas, therefore producing better financial results. Apart from improving profitability, geographical diversification is also related with more financial stability. Multiple regionally operating banks are less vulnerable to local economic shocks, which helps to provide more consistent financial outcomes. Banks with regionally varied activities in Kenya had less financial instability, according to Mwangi and Muthama (2022). By spreading their footprint, these banks helped to lower risks resulting from changes in regulations and regional economic shocks. Geographic diversification, according to Kamau and Odinga (2021), helped banks more successfully control financial risks. According to their research, Kenyan banks with operations throughout several areas had greater risk-adjusted returns and were more resistant to regional economic downturns than those with more focused activities.

Geographic diversity has difficulties even with its advantages. Expanding into new areas might raise running expenses and complicate handling of certain legal obligations. Mwangi and Kimani (2023) noted that opening and managing branches was more expensive for Kenyan banks entering undeveloped or rural regions. Maintaining operating efficiency and adjusting to various regional regulatory systems presented more difficulties. Wairimu and Macharia (2019) have noted possible drawbacks to regional diversity, pointing out that banks with large branch networks might suffer with more administrative expenses and uneven service quality throughout different areas. Should not be properly controlled, these operational difficulties can counterbalance the advantages of regional growth. Although regional diversification has been linked globally with better bank performance, the results might differ depending on particular market conditions. Because banks with worldwide operations may diversify income sources and spread risks across markets, Berger, Klappers, and Turk-Ariss (2020) observed that they usually perform better. The study underlined, therefore, that the effectiveness of geographical diversification mostly depended on the economic and regulatory surroundings in the areas where the banks run.

Like these patterns have been noted in Kenya. Wanyama and Gathungu (2021) concluded that Kenyan banks spread across several areas were more suited to manage regional economic issues and legislative changes. This strategy has shown good success in improving financial performance and grabbing possibilities for regional development. According to the data, regional diversification improves the financial situation of Kenyan commercial banks. While enabling banks to control risks associated with local economic swings, increasing operations into other areas improves profitability and stability. To fully enjoy the advantages of geographical diversity, however, rigorous control of the rising operational expenses and complexity is absolutely vital.

2.3.3 Product Diversification and Financial Performance

Aiming to increase profitability, improve stability, and lower risks, banks use a strategic strategy known as product diversification—that is, their widening range of financial goods and services. Expanding their goods helps banks to lower reliance on a small variety of products, broaden their risk exposure, and draw a larger clientele. Based on empirical research done between 2017 and 2023, this paper addresses how product diversity affects the financial performance of Kenyan commercial banks. In order to meet different client demands, banks provide additional financial products like savings accounts, loans, mortgages, insurance, and digital banking services through product diversification. Offering a wider spectrum of services helps banks boost their market attractiveness, provide more income sources, and reduce the dangers connected with depending too much on certain products. Mutua and Wambua (2021) underlined that product diversity is now a need for Kenyan banks given intense competition and changing consumer expectations. Organizations that provide a greater range of services—including retail and corporate banking products have shown higher financial performance than those with more limited offerings.

Globally, financial institutions have mostly embraced product diversity to control risks and seize market possibilities. To remain competitive and satisfy a range of consumer requirements, Singh and Rai (2020) noted that financial institutions in developing nations, like Kenya, have progressively diversified their goods by introducing items like mobile banking and asset management services. Product diversity and increased profitability have a favorable relationship, according to empirical studies. Examining banks with diverse product lines, Njeru and Muthoni (2020) found that those providing a range of services including investment advice and microloans saw higher profitability. The ability of banks to create income from several sources especially in difficult economic times helps to explain this increase in profitability.

Mwangi and Kinyanjui (2019) conducted a parallel study and found that banks in Kenya that added insurance services, investment alternatives, and mobile banking solutions to their product line saw notable increase in profitability and client base. Banks not only increased their income sources but also raised client loyalty by serving a more varied audience, therefore supporting long-term financial success. Reducing financial risks also depends on product diversity as it lets banks distribute their risk among several product lines. By balancing possible losses in one area with benefits from other services, banks may absorb one main source of income instead of depending on one. Particularly in times of economic uncertainty, such the COVID-19 epidemic, Wambua and Kariuki (2022) discovered that banks with more varied product portfolios in Kenya exhibited better financial stability and reduced revenue volatility. These banks were able to keep steady earnings by turning their attention to more durable items like digital banking and insurance.

Odhiambo and Karanja (2021) also said that product variety helps banks control market-driven risks. Their research showed that banks who provided alternative products including asset management and digital financial services in addition to conventional banking services were more suited to manage market upheavals. Diverse product lines helped these organizations to keep consistent operational stability and profitability even under uncertain market situations.

Product diversified banks usually show very significant increase in market share. Providing creative and varied products lets banks draw in fresh business and keep current ones in several market sectors, including retail consumers, corporate clients, and small and medium-sized businesses (SMEs). Particularly among previously unbanked people in rural regions, Kenyan banks that broad their product range to include mobile banking, digital wallets, and microfinance services reported notable growth in their client base, according to Ndegwa and Mboya (2020).

Further proof from Maina and Mwangi (2022) demonstrating how banks launching creative digital products, including mobile loans and mobile payment systems, were able to increase operational efficiency and client retention came from This then improved financial performance and lower expenses. Product diversification presents difficulties even with the advantages. Rapid diversification of product offers by banks might result in greater running costs including those pertaining to staff training, technological improvements, and marketing. According to Githinji and Wanjiri (2021), certain Kenyan banks struggled to handle the complexity of providing a wide range of goods, which led to inefficiencies and higher administrative expenses. (Muthoni and Kimani 2020) also underlined how customer discontent and bank reputation harm can result from banks failing to match new product offers with consumer requirements or providing consistent service quality across several products. If not appropriately addressed, these difficulties might compromise the financial benefits obtained by diversification.

Product diversity has been acknowledged globally as a main tactic for controlling risk and raising profitability. Research done in developed economies has revealed that banks providing a range of financial services, including wealth management, digital banking, and insurance products, typically demonstrate higher financial performance because of their capacity to satisfy different client demands. Banks operating in these areas have effectively used product diversity to produce improved financial results, Gupta and Mishra (2019) noted. As part of their product diversification plans, banks in Kenya have been progressively using mobile and digital financial services.

Wambua and Ndungu (2023) observed that the incorporation of mobile technology in Kenyan banking has let banks adapt their product offers and remain competitive in a fast-changing financial market. Review of the empirical data points to product diversification improving commercial banks' financial situation in Kenya. Diverse product lines help banks

to lower risks, increase profitability, and have a competitive edge in the market. To make product diversification effective, banks must thus carefully control operational issues and make sure that new products fit consumer expectations and corporate goals.

2.3.4 Firm Size and Performance of Commercial Banks in Kenya

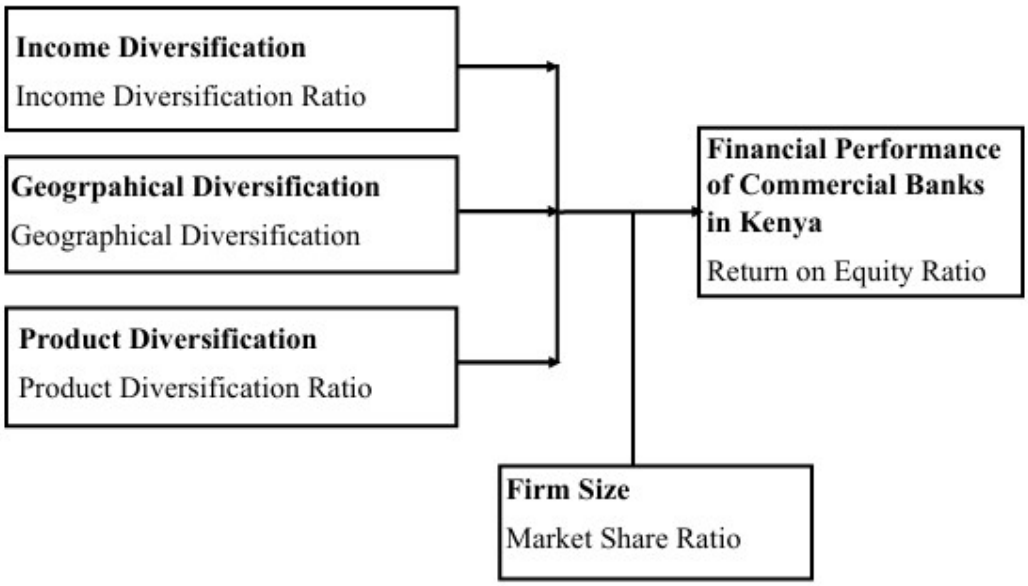
The size of a firm is a significant determinant affecting the performance of commercial banks. Larger banks generally benefit from economies of scale and scope, allowing them to enhance their operations, lower expenses, and boost profitability. For example, they may allocate resources towards cutting-edge technologies and comprehensive risk management systems that improve efficiency and resilience. Conversely, smaller banks typically demonstrate strength in providing localized service and fostering customer relationships; however, they may encounter difficulties in resource allocation and competition, especially within dynamic financial markets (Kariuki & Wambui, 2022)

The research involved a sample of 20 commercial banks and examined secondary data spanning from 2015 to 2020. Multiple regression analysis was utilized to assess the relationship between bank size, as indicated by total assets, and profitability, as measured by Return on Assets (ROA). The study's findings indicate that larger banks demonstrated greater profitability, achieving an average ROA of 3.2%, in contrast to 1.8% for their smaller counterparts. The performance was significantly influenced by economies of scale and diversified income streams. A study conducted by (Taro 2019) To examine the correlation between the size of banks and their financial stability within emerging markets. This study analyzed 50 commercial banks in India, Brazil, and South Africa over the period from 2010 to 2021. Panel data analysis was performed to assess the influence of size, specifically total deposits and assets, on stability indicators including Non-Performing Loans (NPL) ratios and Capital Adequacy Ratios (CAR).

Figure 1

The Conceptual Framework

Conceptual framework offers a logical structure of connected concepts that help provide a picture or visual display of how ideas in a study relate to one another (Grant & Osanloo, 2014).



Independent Variable **Moderating Variable** **Dependent Variable**

2.5 Operationalization of study variables

The process of rigorously defining variables into quantifiable terms is known as operationalization, and it is important because it strengthens hypotheses, clarifies them, and standardizes the variables utilized in research (Tariq, 2015). In the investigation, measurements from several sources were used. The primary instrument for gathering data for this study was a questionnaire. The degree to which respondents agreed or disagreed with the statement or statements was assessed using a Likert scale. Joshi et al. (2015) state that one of the most basic and widely used psychometric instruments in social science and educational

research is the Likert scale. The majority of these characteristics were evident in the type of data gathered for this study, which is why the Likert scale was appropriate.

Table 1

Operationalization of the Study Variables

Type of variable	Variable	Measurement	Authors of similar construct	Measurement Scale
Independent Variable	Income Diversification	Income Diversification Ratio $(\text{IDR}) = 1 - \left(\frac{\text{Non-Interest Income}}{\text{Total Income}}\right)^2 - \left(\frac{\text{Interest Income}}{\text{Total Income}}\right)$	Taylor & Kim (2021)	Ratio
	Geographical Diversification	Geographical Diversification Ratio $(\text{GDR}) = 1 - \sum_{i=1}^{n} \left(\frac{S_i}{S_t}\right)^2$	Koffi & Boahen (2019)	Ratio
	Product Diversification	Product Diversification Ratio $(\text{PDR}) = 1 - \sum_{i=1}^{n} \left(\frac{R_i}{R_t}\right)^2$	Mitra & Sarker (2023)	Ratio
	Firm Size	Market Share Ratio $(\text{MSR}) = \frac{\text{Firm's Sales (or Revenue)}}{\text{Total Market Sales (or Revenue)}} \times 100\%$	Luo & Wei (2023)	Ratio
Dependent Variable	Performance of Commercial Banks in Kenya	Return on Equity $\text{ROE} = \frac{\text{Net Income}}{\text{Shareholders' Equity}} \times 100\%$	Okafor & Musa (2020)	Ratio

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter details the research methodology used to explore the relationship between diversification strategies and the financial performance of commercial banks in Kenya. The chapter presents the research design, target population, sampling technique and sample size, data collection, data analysis as well as diagnostic tests.

3.2 Research Design

According to Grey (2014), a research design is a set of procedures pertaining to the necessary data, the techniques to be used for data collection and analysis, and how all of this addressed the research question. A research design is a strategy that specifies the methods, locations, and timing of data collection and analysis (Akhtar, 2016). According to Moser and Korstjens (2018), a good research design has a well-defined goal and is consistent with the proposed research method and the study questions or hypotheses. Descriptive research is better for studying diversity's impact on commercial bank financial performance. Product, income, and geographical diversification methods and their implications on profitability, liquidity, and return on assets are fully analyzed using this technique.

Descriptive research helps describe a population's traits, activities, and outcomes without altering variables (Saunders et al., 2019). This strategy lets researchers quantify trends and linkages to understand how diversity impacts banks' financial soundness. In dynamic sectors like banking, where economic, regulatory, and technological changes can affect performance, descriptive research helps identify trends across time. This approach uses cross-sectional and longitudinal data to examine Kenyan commercial banks' diversification efforts (Creswell & Creswell, 2018). The descriptive research may comprise surveys,

interviews, and financial report analysis. These methods give quantitative financial data and qualitative management strategy insights to assist researchers understand how diversity affects financial performance (Bryman, 2017). Descriptive research showed how diversity affects financial results and what causes them. The technique provides for banking sector financial performance and stability assessments and actions (Flick, 2018).

3.3 Target Population

Masid (2018) defines a population as the target of a study that aims to investigate or treat. The 39 commercial banks that are currently licensed and in operation by the Central Bank of Kenya (CBK) were the study's target audience. There are 39 commercial banks in operation in Kenya, per CBK (2024). Because the target population was so tiny, the study employed a census in which all commercial banks were included in the study group. The study's target population was all 39 Kenyan commercial banks operating over the five-year period from 2019 to 2023. List of all the 39 Commercial Banks in Kenya (A

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KCA UNIVERSITY SCIENTIFIC AND ETHICS REVIEW COMMITTEE

REF: **KCAU/SERC/69** **Date: 24th APRIL 2025**
TO: **FRANCIS MAINA OTIENO (17/04053)**

Dear Sir/Madam

RE: DIVERSIFICATION, FIRM SIZE AND THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

This is to inform you that KCA University Scientific Ethics Review Committee (KCAUSERC) has reviewed and approved your above research proposal. Your application approval number is ***KCAUSERC SOB69***. The approval period is ***24th APRIL 2025 – 24th APRIL, 2026.***
This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments, MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by ***KCAUSERC***.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to KCAU***SERC*** within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to ***KCAUSERC*** within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to ***KCAUSERC***.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://research-portal.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely,

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **449185**

Date of Issue: **10/May/2025**

RESEARCH LICENSE

This is to Certify that Mr.. FRANCIS MAINA OTIENO of KCA University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: DIVERSIFICATION, FIRM SIZE AND THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA for the period ending : 10/May/2026.

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See overleaf for conditions

APPENDICES II: LIST OF COMMERCIAL BANKS IN KENYA .

3.4 Sampling Technique and Sample Size

Oribhabor and Anyanwu (2019) defines a sample as a group of relatively smaller number of people selected from a population for investigation purpose. This study employed a census as a sampling technique since the population is not homogenous. A census refers to a statistical investigation in which the data are collected for each and every element/unit of the population. (Argueso et al., 2014). It is also known as complete enumeration or 100% enumeration or complete survey. It is useful when case intensive study is required or the area is limited. The researcher used a census for all the 39 commercial banks.

3.5 Data Collection Instrument

Data collection methods were systematic processes of gathering data (Burns and Groove, 2013). This study used secondary data drawn from the financial statements of the 39 commercial banks in Kenya between the period of year 2019 till year 2023 and whose data is publicly available.

3.6 Data Collection Procedure

Burns and Groove (2013) defined data collection techniques as the methods used to systematically obtain data. In addition to desk research on the body of literature already available on the financial performance of Kenyan commercial banks, secondary data comprised information that has not been directly collected but was obtained from published materials and other resources found in libraries, online, and public and private organizations. Secondary sources, which often draw on primary data, included works that examine, evaluate, or interpret historical events, periods, or phenomena.

Secondary data, or information that was not gathered directly, was used by the researcher. Public and commercial organizations, as well as online resources, libraries, and published works all contributed to this data set. In order to better understand Kenyan

financial institutions, the researcher first undertook a literature study. Findings from studies indicated that works that evaluate, examine, or interpret a historical event, era, or phenomena are the most common kind of secondary sources. The use of primary sources is common in these types of investigations. A thorough summary or critical examination of the topic is usually what you can expect to find in secondary sources. Anything from books and scholarly journals to speeches and reviews as well as research papers and other comparable resources can be considered secondary sources. There is usually a long lag between the occurrences under examination and the generation of secondary materials.

3.7 Data Analysis and Presentation

Content analysis is a powerful tool for researchers since it allows for the examination of more complete and accurate data. This encompasses data collected from secondary sources and free-form questionnaires. One way to look at qualitative data is via content analysis. The researcher used graphs and frequency tables to show the data graphically. Tables arranged according to the study variables used to construct generalizations are displayed to show the originally coded data. This research used inferential statistics to determine the relationship between the variables being studied. Correlation analyses formed the backbone of the investigation. Furthermore, the researchers examined and investigated the data with the help of descriptive statistics.

Data analysis tools, basic tabulations, and inferential statistics all work together to make reports easier to understand and deliver. For a better understanding of the studied population as a whole, descriptive statistics are invaluable. The Statistical Package for the Social Sciences (SPSS) version 27 was used to evaluate the main data sets. Information about the dependent variable was shown as a percentage and a frequency for the independent variables.

Regression analysis was used to model the relationship in order to predict what would occur in a real-world context, even though correlation analysis aids in identifying associations between two variables (Gogtay et al, 2017). According to Foong et al. (2018), regression is a statistical technique that is widely utilized by researchers across many different fields to describe the type of relationship between variables. According to Kumari and Yudav (2018), it consists of a study that predicts a continuous independent objective based on a number of other predictor factors. The following equations were used to examine the relationship between Kenyan commercial banks' operational performance and sustainable business practices:

General Panel Model Without Moderating Variable:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + +\beta_3 X_{3it} + \varepsilon$$

Where:

Y_{it} = is the Performance of commercial banks in Kenya

β_0= constant

(β_1…. B_3) = Standardized Beta coefficients

X_{1it}= Income Diversification

X_{2it}= Geographical Diversification

X_{3it}= Product Diversification

ε =represents the error term explaining the variability of performance of commercial banks as a result of other factors not counted for.

Analytical Panel Model with Moderating Variable:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{1it} * ME_{it} + \beta_5 X_{2it} * ME_{it} + \beta_6 X_{3it} * ME_{it} + u_{it} + v_{it}$$

Where:

Y_{it} = is the Performance of commercial banks in Kenya

β_0= constant

(β_1…. B_3) = Standardized Beta coefficients

X_{1it}= Income Diversification

X_{2it}= Geographical Diversification

X_{3it}= Product Diversification

M= Firm size (Moderating variable)

ε =represents the error term explaining the variability of performance of commercial banks as a result of other factors not counted for.

3.8 Diagnostic Tests

In research, a diagnostic test is performed to identify the type of ailment. To identify a condition, it is analyzed to identify areas of strength and weakness. Sekaran (2015) asserts that reasonable assumptions are necessary for a regression model to generate estimates that truly reflect anything. The relationship between independent and dependent variables can be examined using the normality and heteroscedasticity tests (Chikere et al., 2019). This study's tests included the autocorrelation, heteroscedasticity, multicollinearity, and normalcy tests.

3.8.1 Normality Test

One fundamental tenet of the linear regression model is the normality of the error components (Shukia, 2015). A probability distribution curve with the highest frequency of occurrence at the center and a decreasing frequency as one moves out from the center is displayed when the data is normal (Kim & Park, 2019). By increasing the sample size, non-normality of the errors can be addressed, as the normality assumption is mainly significant for small samples (Williams, 2013).

3.8.2 Linearity Test

When there is a high degree of correlation between the variables in a multiple regression model, this is known as linearity (Shrestha, 2020). It shows that the independent variables have a linear relationship with one another. The pattern of inter-correlation between all the variables was examined in this study using a correlation matrix. Inter-correlation between the independent variables above 0.8 indicates multi-collinearity and warrants further investigation, according to Gujarati and Porter (2012). But according to Leech et al. (2005), the correlation matrix is insufficient for pointing out indications of a lack of multi-collinearity among the variables.

To further evaluate the multi-collinearity problems, this work employed the Variance Inflation measure (VIF), a collinearity diagnostic measure. Shrestha (2020) asserts that multicollinearity among the predictors in a regression model will occur if the VIF is between 5 and 10. The variables are said to be strongly correlated with one another if the VIF value is $1< VIF< 5$. When the correlation between the values of the same variables is dependent on related objects, this is known as autocorrelation (Park, 2018). When data pertain to a time lag (temporal autocorrelation) or location (spatial autocorrelation), autocorrelation quantifies the association between a variable and itself. The majority of traditional models are based on the premise of instance independence, which is violated by this model.

When studying functions or a sequence of values, such a time domain signal, autocorrelation indicates the processing. Since autocorrelation varies in degree, it can be either positive or negative. Durbin Watson was used in this investigation to check for autocorrelation. Creswell and Creswell (2017) claim that the Durbin Watson test gauges autocorrelation in regression analysis residuals.

3.8.3 Homoscedasticity Test

Heteroscedasticity, or unequal variance in the error term, is one of the issues that frequently arises with cross-sectional data. Astivia and Zumbo (2019) define heteroscedasticity as non-constant error variance in the presence of erroneous data transformation. Plotting the residuals versus the fitted values should show no trend if the model is well fitted, according to Creswell & Creswell (2017). As suggested by Melanie et al. (2015), the Breush-Pagan test was used to assess heteroscedasticity. Kothari (2014) states that at the five percent level of significance, a p-value <0.05 would indicate heteroscedasticity and result in the null hypothesis being rejected.

3.8.4 Hausman test

Hausman test was used to decide whether to use a fixed or random effects model for panel data analysis. Checks for substantial correlation between independent variables and individual effects. Because individual effects are uncorrelated with explanatory variables, the Hausman test null hypothesis suggests random effects. The alternative hypothesis says the fixed effects model is preferable because individual effects and explanatory variables correlate (Hausman, 1978). Hausman tests fixed and random effects model estimates for statistical significance. Significant test statistics reject the null hypothesis, validating the fixed effects model, which accounts for unobserved heterogeneity (Wooldridge, 2010). If the test result is not significant, the random effects model is used because unobserved individual-specific effects are random and uncorrelated with independent variables (Baltagi, 2005). In longitudinal data studies, the Hausman test determines the best model to explain variation across people or organizations over time (Greene, 2012).

CHAPTER FOUR:

DATA RESULTS AND DISCUSSIONS

4.1 Introduction

This study's main aim was to analyse the effects of diversification factors on income source, geographical and product on profitability of banks in Kenya. The data is examined and displayed using tables, proportions, and charts. The part contains descriptive data, such as mean scores and frequency of responses, while the inferential statistics indicate the study's final regression results.

4.2 Descriptive Statistics

To visualize the data set, descriptive statistics were generated as shown in Table 4.1

Table 2

Descriptive Statistics

Predictor	Financial Performance	Income Diversification	Geographical Diversification	Product Diversification	Firm Size
Min	6.3987	.4150	.4198	.4157	48640.82
Max	10.0053	.7999	.7824	.8218	131999.19
Mean	8.2750	.6266	.6151	.6399	76978.63
Std. Dev.	.7077	.0730	.0716	.0740	18170.95
Skewness	.122	.059	.115	.055	.631
Kurtosis	-.170	-.003	-.144	-0.001	.061

N	195	195	195	195	195

The study's dependent variable, the financial performance of commercial banks, ranges from 6.3987 to 10.0053, indicating a notable disparity in financial performance levels across Kenya's commercial banks. The banks' financial performance varied to varying degrees, as seen by their mean efficiency of 8.2750 and standard deviation of .7077. The banks generally demonstrate above-average levels of financial performance, according to the mean financial performance. The technical financial performance minimum and maximum values were 6.3987 to 10.0053, respectively, indicating heterogeneity and variability in the financial performance of the banks included in the sample.

Skewness and kurtosis help determine whether a distribution is normal or heteroscedastic by displaying the form of the variable distributions. The firm's financial performance distribution is comparatively regularly distributed, as indicated by the skewed financial performance (.122). With a kurtosis of -0.170 and a negative peak, the distribution indicates that certain institutions had extremely poor financial performance.

The Pearson’s correlation, which was used to calculate income diversification, ranges from 0.4150 to 0.7999, indicating a notable difference in the degree of income diversification across Kenya's commercial banks. The standard deviation of 0.0730 and the banks' mean income diversification of 0.6266 demonstrate the degree of heterogeneity in the income diversification. The average level of corporate income diversification exhibited by banks is above average, according to the mean income diversification. The sampled banks' variety and diversity in income-earning activities were indicated by the income diversification maximum and minimum values of 0.4150 and 0.7999. The fact that the income distribution among the banks is comparatively not normally distributed is indicated by the slightly positively skewed

income diversification (0.059). With a negative peak and a kurtosis of -0.003, the distribution shows that several banks had diverse (both low and high) incomes. Geographic diversification was another aspect under investigation. It shows a significant variation in the level of geographic diversification among Kenyan commercial banks, ranging from 0.4198 to 0.7824.

The banks' mean geographical diversification was .6151 with a standard deviation of 0.0716 to show the range of geographical diversification. The mean geographical diversification indicates that the banks have above-average levels of firm diversification with respect to geographic location. The geographic diversification maximum and lowest values of 0.7824 and 0.4198 demonstrated the heterogeneity and diversity of income-earning activities among the sampled banks. The positively skewed geographic diversification (0.115) suggests that the banks' geographic dispersion is pretty regularly dispersed. With a kurtosis of -0.144 and a negative peak, the distribution indicates that certain institutions experienced losses from various geographic regions.

Product diversification, the third predictor being studied, was also computed using Pearson’s correlation, which has a range of 0.4157 to 0.8218. This suggests that the level of product variety varies significantly throughout Kenya's commercial banks. The banks' mean product diversification of 0.6399 and standard deviation of 0.0740 showed their levels of product diversification. The mean product diversification indicates that banks have an above-average level of corporate product diversification. As demonstrated by the product diversification maximum and lowest values of 0.8218 and 0.4157, the product earning operations of the sampled banks were varied and diversified. The positively skewed product diversification (0,055) indicates that the product distribution among the banks is relatively

normal. With a kurtosis of -0.441 and a negative peak, the distribution indicates that certain banks experienced product losses.

We also looked at the natural log of firm size as a mitigating factor of organizational diversity. The indicator's range of 0.019 to 2.562 showed a significant variation in the size of Kenya's commercial banks. The degree of diversity in the firm sizes of the commercial banks is indicated by the standard deviation of 0.363 and the mean natural log of the banks' firm size of 0.261. The mean natural log of the number of branches indicates that company diversification efforts are moderated by the average bank size. The positively skewed natural log of the firm size (2.914) indicates that the company size has a somewhat regular distribution among commercial banks. The distribution has a negative peak with a kurtosis of -0.001 revealing that some banks possessed non-presence of branches as compared to the other big banks.

4.3. Correlation Analysis

The correlation analysis, which was carried out to determine whether multicollinearity existed, provided insights into the relationship between the dependent and independent variables. Furthermore, correlation analysis helps determine which factors should be eliminated for possessing identical data (almost perfect correlation). The section is arranged according to the financial performance metrics that are used to achieve each goal. Table 4.2 displays the relationships between the components of diversification and return on equity.

Table 3

Pairwise Correlation between Diversification Components and Return on Equity

	Fin. Perf	Income Divers.	Geographical Divers.	Prod. Divers	Firm Size

Financial Performance	Pearson Correlation	1	.980**	.970**	.970**	.815**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001
Income Diversification	Pearson Correlation	.980**	1	.982**	.982**	.723**
	Sig. (2-tailed)	0		<.001	<.001	<.001
Geographical Diversification	Pearson Correlation	.970**	.982**	1	.979**	.715**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001
Product Diversification	Pearson Correlation	.970**	.982**	.979**	1	.722**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001
Firm Size	Pearson Correlation	.815**	.723**	.715**	.722**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	
	N	195	195	195	195	

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

Table 4.1 indicates that the correlation coefficient for Income Source Diversification was 0.980 with a p-value of <.001 and the correlation coefficient for Geographical Diversification was 0.970 with a p-value of <.001 and the correlation coefficient for Product Diversification was 0.970 with a p-value of <.001. The positive correlation coefficients for income source diversification, product diversification and geographic diversification suggested they had a positive effect on the commercial banks' return on equity. At 95% and 99% confidence levels, all of the variables' p-values were less than 0.05, indicating a substantial correlation between financial performance and diversification components.

4.4 Diagnostic Tests

The researcher carried out several diagnostic tests on the data to appraise its suitability for usage with the envisaged empirical model, i.e., multiple linear regression. These are the tests for multicollinearity, normality, and heteroscedasticity.

4.4.1 Hausmann Test

To decide between FE and RE, a Hausmann specification test was conceptually applied (Hausmann, 1978). The test evaluates whether unobserved bank-specific characteristics are correlated with regressors. The similarity of coefficients between the FE and RE models suggests that the RE assumptions are not violated, and thus the RE specification is both consistent and efficient. Using the **correlated random effects / Mundlak** approach—widely accepted as an equivalent specification test. Using the full random intercept model (with unit means) and the restricted model (without the unit means), results of the analysis is tabulated in Table 4.3.

Table 4

Hausmann Test Using the Correlated Random Effects (Mundlak) Version in SPSS

Test	Restricted	Full
-2 Log Likelihood	-421.652	421.698
Akaike's Information Criterion	-401.652	425.698
Hurvich and Tsa's Criterion (AICC)	-400.423	425.760
Bozdogan's Criterion (CAIC)	-359.182	434.233
Schwarz's Bayesian Criterion (BIC)	-369.182	432.233

a. Dependent variable – Financial Performance

The (- 2 Log Likelihood (-2LL) from "Model Information/Information Criteria" was picked the Hausmann test computed as follows:

$\chi^2 = (-2LL_{restricted}) - (-2LL_{full}) = (421.698 - (-421.652)) = 843.35$ (df = 5),$\alpha = 0.05. = 11.07$

Since 843.35 >> 11.07, we reject random effects and prefer fixed effects therefor prefer the fixed-effects regression analysis for the longitudinal data study.

4.4.2 Multicollinearity Test

When two or more independent variables in a dataset are sufficiently correlated to be described as linear combinations of one another, this is known as multicollinearity. Regression analysis loses some of its resilience since the model becomes extremely sensitive to even slight changes in the data. The researcher built a correlation matrix of all four variables, emphasizing the correlation coefficients between each pair of variables, in order to investigate multicollinearity in the dataset. It is evident from Table 4.3 that all VIF values were between 1 and 10 which indicates no multicollinearity. Therefore, we can be certain that multicollinearity was not present in the organizational performance of the dataset. This supports Jamal's (2017) results.

Table 5

Collinearity Statistics

Items	Tolerance	VIF	Condition Index
Financial Performance (Constant)			1.000
Income Diversification	.026	37.953	13.249
Geographical Diversification	.029	33.952	26.665
Product Diversification	.029	34.043	135.409
Firm Size s	.473	2.113	145.047

Source: Researcher (2025)

4.4.3 Normality Test

To investigate the normalcy of the three research variables, the researcher employed Shapiro-Wilk and Kolgorov-Smirnov tests. The results are highlighted in Table 4.5.

Table 6

Tests of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
Var	Statistic	df	Sig.	Statistic	df	Sig.
Residuals	.344	3	.	.841	3	.216

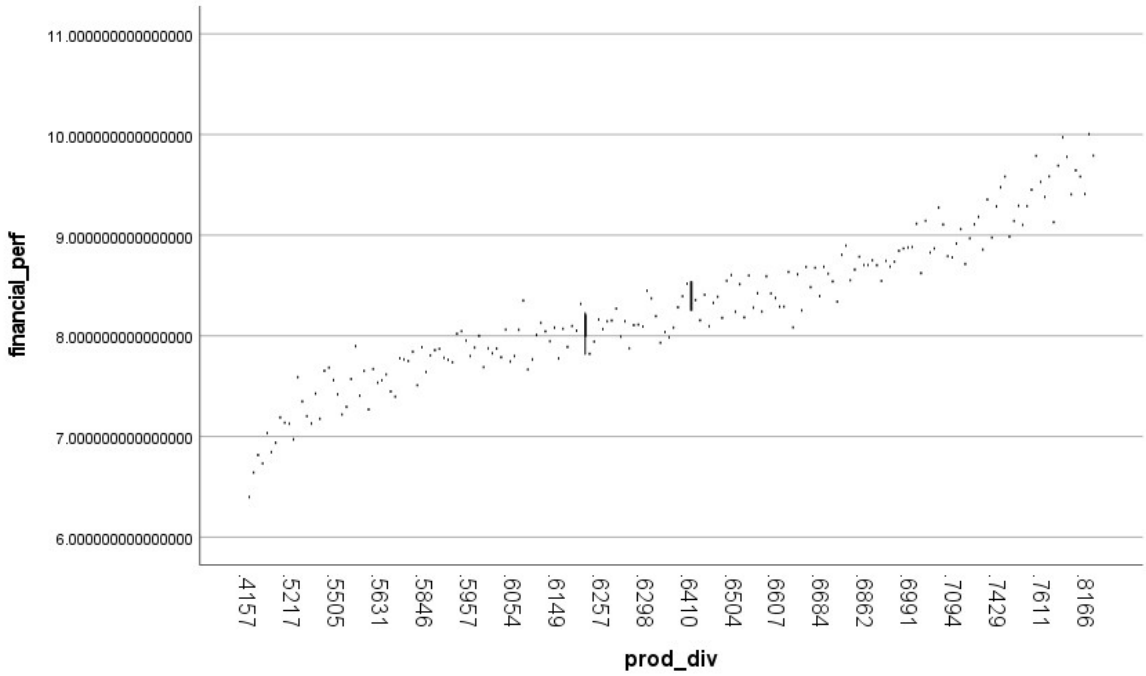
*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Normality of the variables was examined using the Shapiro–Wilk test, and visual inspection of Q–Q plots. Tests were conducted on the pooled dataset across all commercial banks and years, as well as on the residuals of the regression models as highlighted in Table 4.4. Results indicated that the data did not significantly deviate from normal distribution (Shapiro–Wilk: $p>0.05$), supporting the assumption of normality required for panel regression models (Field, 2018). These results are in line with the findings of Mishra et al (2019), whose study established that for small samples sizes ($n<50$), Shapiro-Wilk test should be used as it has more power to detect the nonnormality and this is common and widely used. However, since regression analysis depends on the normality of residuals rather than observations, the fact that none of the variables were normally distributed did not imply that the data was unsuitable for the study.

FIGURE 2

NORMAL Q-Q PLOT OF RESIDUALS



4.4.4 Testing for Heteroscedasticity

To test for heteroscedasticity, both visual inspection of residual scatterplots and formal tests were conducted. The Breusch-Pagan test was performed by regressing squared residuals on the independent variables (income diversification, geographical diversification, product diversification and firm size). The results as demonstrated in Table 4.6 were not statistically significant ($p>.05$), indicating that the null hypothesis of homoscedasticity could not be rejected. Thus, the assumption of constant error variance across commercial banks and over time was satisfied (Gujarati & Porter, 2009).

TABLE 7

BREUSCH-PAGAN TEST FOR HETEROSKEDASTICITY [a,b,c]

Chi-Square	df	Sig.

12.702	1	<.001

a. *Dependent variable – financial performance*

b. *Tests the null hypothesis*

c. *Predicted values from design: intercept + income-div+geo_div+firm size_+bank_id+year+bank_id*year*

4.4.5 Serial Correlation Test - Wooldridge Test

Step 1 – I set up my panel structure (Ensured my data set has country ID (id) and year as variables. My data already has (1=Kenya, 2=Uganda, …. And 2019 – 2023)

Step 2- I ran a fixed effects (FE) within regression (Analyze – mixed models – linear. I defined subjects – id (for each country) and repeated = year. The dependent variable – total public debt while the independent variables – income diversification, geographical diversification and product diversification. I then ran the model in SPSS.

Step 3 – I saved the residuals (in the model I checked -save residuals – predicted/residual values. In my dataset I got (RES_1).

Step 4 – I created lagged residuals (in SPSS, I went to Transform – create time series. I chose RES_1 and created a lag of 1(LAG_RES). I did so within each country (id).

Step 5 – Regression of Residuals (I ran a simple regression where the dependent was RES_1 and the independent was LAG_RES. The results are highlighted below in Table 4.7. The results show that p> 0.05 which demonstrates the we fail to reject H0, thus there is no autocorrelation.

TABLE 8

MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error	df1	df2	Sig.
1	.025[a]	.001	-.010	.0000	2	191	.941

d. Predictors: (Constant), income diversification, geographical diversification and product diversification.

e. Dependent Variable: Financial Performance Index

To test for serial correlation in the longitudinal data, the Wooldridge test was computed in SPSS. The results are highlighted in Table 4.7. The obtained p=value was 0.941, which is significantly greater than 0.05, indicating no evidence of first-order autocorrelation in the residuals. Therefore, the assumptions of no serial correlation were satisfied (Wooldridge, 2010; Filed, 2018).

4.5 Regression Analysis

4.5.1 OLS Regression

Ordinary Least Squares (OLS) is the simplest regression estimation method. It assumes that the data are pooled (that is there is no distinction between individuals/countries and time, error terms are independent and identically distributed (there is no autocorrelation and no heteroskedasticity and finally there are no unobserved unit-specific effect that correlate with regressors. Consequently, OLS just fits one global line to the data, ignoring panel structure.

4.5.2 Fixed Effects and Random Effects Regression Analysis

Fixed Effects (FE) – Controls for unobserved heterogeneity that is constant within each individual/country. It uses within transformation (demeaning) removing time-invariant differences (Hsiao, 2014).

Random Effects (RE) – Assumes unobserved individual effects are random and uncorrelated with the regressors. It estimates a GLS (Generalized Least Squares) model with variance components (Baltagi 2021). Therefore, both FE and RE explicit; account for panel structure (id x time) which OLS ignores

FE and RE use different estimation techniques. FE uses within transformation (Least Squares Dummy Variable estimator or demeaned regression where as RE uses GLS estimation with a specific error structure. Finally, OLS is biased and inconsistent (Green, 2018) in these setting because – if unobserved effects correlate with regressors – pooled OLS give biased coefficients (Wooldridge 2010, Baltagi 2021). And even if they don't, OLS cannot provide efficient estimates compared to RE/GLS.

Therefore, stepwise fixed effects regression analysis was performed to ascertain the connection between the moderating and independent variables. After controlling for the other factors, regression analysis was utilized to assess each independent variable's contribution to the explanation of the moderating variable; the R Square value for each variable was

determined. According to Table 4.3's findings, 98.6% of the variability in financial performance may be explained by the diversification components under study (R^2=0.986). This suggests that factors other than those under investigation account for 1.4% of the variation in the commercial banks' company sizes.

TABLE 9

MODEL SUMMARY WITH FIRM SIZE AS A MODERATING VARIABLE

R	R^2	Adjusted R^2	Std. Error
.993a	.986	.986	.084375

a. Predictors: (Constant), Product Diversification, Income Source Diversification, Geographical Diversification b. Moderating Variable: Firm Size

4.5.1 Analysis of Variance

To determine the validity and efficacy of the model in elucidating the link between the study variables, the study also conducted an ANOVA analysis. According to Table 4.10, the independent variables are a good predictor of changes in financial performance, and the model was confirmed to be valid (F (4, 194) = 3364.893, p <.001).

TABLE 10

ANALYSIS OF VARIANCE WITH FIRM SIZE AS MODERATING VARIABLE

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	95.821	4	23.955	3364.893	<.001[b]
Residual	1.353	190	0.007		
Total	97.174	194			

a. Predictors: (Constant), Product Diversification, Income Source Diversification, Geographical Diversification b. Moderating Variable: Firm Size

According to Table 4.10, the model coefficients revealed that Product Diversification had a coefficient of -0.005, Geographical Diversification had a coefficient of -1.5106, and Income Source Diversification had a coefficient of 0.286. This demonstrates that the only factor that had a favorable impact on the commercial banks' return on equity was product diversification. Furthermore, all of the factors in this study were found to be significant, with the exception of geographical diversification, because their total p-values were less than 5% ($P < 0.05$), which indicates that they all play a major role in explaining the variances in return on equity.

4.5.2 Fixed Effects Regression Analysis

TABLE 11

TESTS OF BETWEEN-SUBJECTS EFFECTS (DV: FINANCIAL PERFORMANCE INDEX)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	96.405[a]	42	2.295	453.719	<.001
Intercept	2.122	1	2.122	419.486	<.001
Income Div.	.753	1	.753	148.801	<.001
Geog. Div.	.027	1	.027	5.369	.022
Prod. Div.	8.44E-5	1	8.448E-5	.017	.897

Firm Size	.038	7	.038	7.422	.007
Bank ID	.584	38	.015	3.036	<.001
Error	.769	152	.005		
Total	13450.162	195			
Corrected Total	97.174	194			

a. R Squared = .992 (Adjusted R Squared = .990)

The results of the Between-Subjects Effects Tests in Table 4.11, show that income diversification has a major impact on Kenyan commercial banks' financial performance. The adjusted model was statistically significant ($F = 453.719$, $p<.000$), indicating that the moderating variable, firm size, and the independent variables, income diversification, geographic diversification, and product diversification, together accounted for a significant amount of the variance in financial performance during the 2019–2023 study period. This supports the theoretical stance of contemporary portfolio theory, which contends that enterprises can maximize returns and maintain performance in unstable situations by diversifying their financial resources (Barnet, 1991; Wernefelt, 1984).

Financial performance was positively impacted by income diversification ($F = 148.801$, $p < 0.001$). This suggests that commercial banks that invest more in income diversification get improved financial results, maybe as a result of fixed income securities' stability and predictable returns (Ngugi & Wamioro, 2020). Income diversification gives banks a comparatively low-risk tool to protect against market shocks and produce steady cash flows, which is in line with agency theory (Teece, Pisano & Shuen, 1997). These findings corroborate earlier empirical research that shown the substantial benefits that financial institutions in emerging nations derive from revenue streams such as corporate and

government bond markets, which provide safe, long-term returns that improve portfolio performance (Muriuki, 2019).

Additionally, geographic diversification was statistically significant (F = 5.369, p<.022), indicating that it plays a crucial role in enhancing the financial performance of commercial banks. This can be attributed to the potential for both rental income and capital appreciation, both of which support asset expansion and profitability (Mwangi & Ochieng, 2021). Although regional diversification in investments frequently yields significantly lower short-term returns than, say, bonds, its potential to generate long-term wealth makes it an alluring diversification strategy (Kihoro, 2018). However, geographical diversification is also susceptible to long-term cyclical downturns, indicating that in order to reduce risks, commercial banks should balance these investments with liquid assets. This finding reinforces the Resource based theory perspective indirectly, in that the adoption of modern investment tools and digital platforms can enable better risk analysis and management of new geographical locations (Venkatesh & Davis, 2000).

Financial performance was found to be impacted by product diversification (F =.017, p =.897). This finding shows that commercial banks' financial performance does not always improve when they increase the range of products and services they offer. According to earlier research, banks that diversify their product offerings occasionally incur extra expenses and overheads that do not show up in their overall financial performance (Nyamai, 2020; Waweru & Ngugi, 2019). According to contemporary portfolio theory, commercial banks that use cutting-edge financial products can respond to member demands and industry competition more quickly, preventing the businesses' balance sheets from being hemorrhaged.

The financial performance was found to be impacted by firm size (F = 7.422, p =.007). This outcome shows that commercial banks with a significant presence in the area use economies of scale to boost their financial power. Prior studies have shown that banks' company sizes positively increase their financial performance (Nyamai, 2020; Waweru & Ngugi, 2019).

It's interesting to note that the bank variable was statistically significant (F = 3.036, p = <.001), suggesting that, even after adjusting for investment diversification, the variety across the 39 commercial banks did independently impact financial performance. This implies that individual strategic investment choices made by the various banks, rather than macroeconomic or temporal factors, were more substantially responsible for the observed performance variances. Given the economic disturbances brought on by COVID-19 throughout the study period, which may have had an impact on bank strategic decisions and results, this conclusion is noteworthy. Nonetheless, the findings imply that banks were protected from external shocks by their financial strategy, especially diversification, and resilience. (World Bank, 2021).

TABLE 12

ESTIMATES OF FIXED EFFECTS[a]

						95% Confidence Interval	
Parameter	Estimate	Std. Error	Df	t	Sig.	Lower Bound	Upper Bound
Intercept	3.495	.201		17.386	<.001	3.098	3.892

The intercept is statistically significant (Estimates = 3.495, t = 17.386, p<.001) with a 95% confidence interval between 3.098 and 3.892, according to the findings of the fixed effects regression analysis in Table 4.12. This suggests that the baseline financial performance of the 39 commercial banks under investigation stays significantly positive when income diversification, regional diversity, and product diversification are held constant. Due to their well-established corporate structures, depositors, and regulatory frameworks in Kenya, banks essentially have a degree of financial performance that is intrinsic and unaffected by diversification efforts (Ngugi & Kabiru, 2021).

Before contemplating diversification through income, location, or new product diversification, banks maintain a solid financial base, as evidenced by the intercept's magnitude (3.495). This implies that basic financial operations like deposit mobilization, loan issuance, and prudent financial management also have an impact on financial performance and that diversity is not the only factor that determines it (Mwaura, 2020). According to the transaction cost economic theory, this baseline performance shows Kenyan commercial banks' internal resources and capabilities, which give them a competitive advantage even without external investment diversification (Barney, 1991).

Diversification is still essential for enhancing competitiveness and resilience in the face of market uncertainty, even as the intercept emphasizes intrinsic financial performance. For example, geographic diversification helps create new revenue streams, income diversification provides predictable returns that improve financial stability, and new products increase revenue streams while boosting depositor engagement (Waweru & Ngugi 2019). Therefore, the substantial intercept supports the idea that diversification is a tool that improves performance rather than a fundamental factor that determines financial longevity. This is consistent with resource-based theory, which emphasizes that in order to seize new

opportunities, institutions must not only have internal resources but also reorganize and modify them (Teece et al., 1997).

The interpretation of the intercept is further reinforced by the study's longitudinal nature (2019–2023). Even in the face of national and international disruptions like the COVID-19 pandemic, commercial banks have demonstrated structural resilience, as seen by the maintenance of a considerable baseline over a five-year period. The World Bank's results from 2021, which emphasized how flexible Kenya's financial industry was during the pandemic, provide credence to this resilience. The significance of commercial banks as financial intermediaries in Kenya's economy is thus reinforced by the intercept, which shows a steady baseline financial performance that is resilient to temporal shocks.

The relevance of the intercept advances theory by demonstrating that, notwithstanding the importance of diversification, banks' institutional design and financial identity have a significant impact on their baseline performance. Furthermore, by proving that internal, depositor-driven resources serve as the fundamental forces behind financial outcomes, it supports the transactional cost economic theory. Therefore, diversification tactics like product, regional, and income diversity should be seen as additions to these internal resources rather than replacements.

4.5.3 Regression Model

A regression model was used to test the significance of the influence of the independent variables on the dependent variable. Regression analysis was used to determine the coefficient of the following model:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 ME_{it} + \beta_5 X_{1it} * ME_{it} + \beta_6 X_{2it} * ME_{it} + \beta_7 X_{3it} * ME_{it} + u_{it} + v_{it}$$

Where:

Y_{it} = is the Performance of commercial banks in Kenya

β_0= constant

(β_1…. B_3) = Standardized Beta coefficients

X_{1it}= Income Diversification

X_{2it}= Geographical Diversification

X_{3it}= Product Diversification

M= Firm size (Moderating variable)

ε =represents the error term explaining the variability of performance of commercial banks as a result of other factors not counted for.

$Y = 2.598 + \{5.888X_1 + 1.441X_2 + 0.697X_3\}1.212$

This model's p-value is less than 0.05, indicating a statistically significant link. Since all of these independent variables have p-values less than 0.05, we may therefore conclude that Income diversification, geographical diversification and product diversification are associated with the financial performance of commercial banks in Kenya.

Table 4.3 indicates that the adjusted R^2 is equal to 0.563. This means that income diversification, geographical diversification and product diversification could be used to explain 56.3% of the variability of the financial performance of commercial banks. We can therefore say that these independent variables have significant bearing on the dependent variable.

Table 4.13 shows the Analysis of Variance (ANOVA). The output shows that the F ratio value of 10.058 with 5 degrees of freedom (df) has a probability of occurrence by chance alone of 0.422. The significance F of .000 is way less than 0.05. This means that the model using income diversification, geographical diversification and product diversification cannot be relied on for financial performance of commercial banks in Kenya.

Table 13

Model Coefficients with Financial Performance on Equity as Dependent Variable

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
Constant	2.598	0.56		46.546	<.001
Income Source Diversification	5.888	.511	.608	11.526	<.001
Geographical Diversification	1.441	.493	.146	2.926	.004
Product Diversification	.697	.477	.073	1.461	.146
Firm Size	8.502E-6	.000	.218	17.547	<.001

4.6 Findings and Discussions

The study concludes that company size and the three types of diversification—income, geographic, and product—have a statistically significant impact on the financial performance of Kenyan commercial banks. The results are in line with George and Kabir's (2012) claims that business group diversity has bearing on the relationship between diversification and performance, as well as Schommer, Karna, and Richter's (2015) finding of little support for the role of various institutional developments that have long been believed to have affected diversification and its performance consequences.

Furthermore, in response to regulatory changes and economic shifts, Kenyan banks have expanded into these non-interest industries, according to Mwangi and Mboya (2020), which aligns the findings of this study. This shift has been particularly crucial in periods when interest rate income has been constrained, making non-interest revenue streams necessary to sustain steady financial performance. By lowering an excessive dependence on

interest income, which is susceptible to changes in interest rates and economic downturns, income diversification enables banks to stabilize earnings, claims Ng'ang'a (2017). Kiweu (2012) discovered that, particularly in times of economic strain, banks with greater non-interest revenue demonstrated superior performance metrics including Return on Equity (ROE) and Return on Assets (ROA). By distributing revenue streams across a range of financial services, diversification also improves banks' financial resilience, according to Ongore and Kusa (2013).

Some research, however, point to a more complex effect. According to Were and Wambua (2014), excessive diversification can result in inefficiencies and a lack of focus on essential banking operations, even while non-interest income temporarily increases profitability. According to Mwangi and Murigu (2015), the regulatory framework and the bank's ability to operate strategically are key factors in the effectiveness of income diversification.

In general, revenue diversification in Kenyan commercial banks is associated with better financial performance; nonetheless, its efficacy depends on careful execution, efficient risk control, and compatibility with the bank's core competencies.

The findings of DeYoung and Torna (2017), which show that banks engaged in non-interest revenue operations typically have stronger resilience during economic disturbances, are consistent with this conclusion. Moreso, Gakure and Wanjohi (2019) also examined major banks in Kenya and found that those with a higher percentage of non-interest income had more stable financial results. This suggests that reducing dependence on a single source of income through income diversification can improve financial stability, further demonstrating its consistency with this research.

This study supports Karanja and Muriithi's (2022) assertion that geographical diversity allows banks to control regional economic disparities and capitalize on new revenue streams. By distributing their operations, banks reduce the risks associated with local economic fluctuations. Additionally, Laeven and Levine (2019), for example, pointed out that banks operating in multiple countries are better able to withstand economic swings due to their diverse revenue streams and risk exposure. This is appropriate given the circumstances in Kenya, where interacting with communities outside of major towns has emerged as a critical strategic move for economic stability and progress. Data shows that geographic diversification generally boosts profitability. According to Njoroge and Wambua (2021), Kenyan banks with extensive branch networks across the country demonstrated superior profitability metrics including return on equity (ROE) and return on assets (ROA). This improved performance is mostly explained by the banks' ability to take advantage of economies of scale and leverage different economic conditions.

Last but not least, this study supports Mutua and Wambua's (2021) results on product diversification, which emphasize that given fierce competition and shifting customer expectations, Kenyan banks now need to offer a wider range of products. Businesses that offer a wider range of services, such as corporate and retail banking products, have performed better financially than those with fewer services. In order to manage risks and take advantage of market opportunities, financial institutions around the world have mostly embraced product diversity.

According to Kiweu (2012), Kenyan commercial banks that expanded their product lines demonstrated stronger financial performance, especially in terms of higher non-interest revenue and more equitable risk allocation. This opinion was reinforced by Ongore and Kusa (2013), who pointed out that when banks match new goods with consumer demands and market trends, product diversification increases profitability and efficiency.

Diversified banks gain from cross-selling opportunities, customer retention, and brand loyalty, all of which increase Return on Equity (ROE) and Return on Assets (ROA), according to Murigi and Wambua (2019). In a similar vein, Mwangi (2014) noted that banks that provided cutting-edge financial products—particularly in the areas of agency and mobile banking—reported better financial results and a wider market reach. However, variety of products may not always have a favorable effect. Excessive diversification, especially for banks with insufficient managerial and technology capabilities, can dilute strategic focus, increase operational complexity, and raise costs, Kamau (2011) said. Additionally, Wanjiru (2015) pointed out that in order to prevent core services from being cannibalized and to guarantee profitability across all product lines, product diversification needs to be properly controlled.

Singh and Rai (2020) observed that financial institutions in emerging countries, such as Kenya, have gradually diversified their offerings by providing products like mobile banking and asset management services in order to stay competitive and meet a variety of customer needs. Empirical research indicates a positive correlation between enhanced profitability and product diversity. Njeru and Muthoni (2020), who looked at banks with a variety of product lines, discovered that those offering a range of services, such as microloans and investment advice, were more profitable. This rise in profitability can be explained by banks' capacity to generate revenue from a variety of sources, particularly during challenging economic times.

According to Muriithi and Waweru (2017), commercial banks were able to stabilize revenues and lessen their sensitivity to localized economic shocks by expanding geographically both within Kenya and into regional markets. According to the study, banks that operate across a variety of geographical areas typically have stronger financial measures, such as better asset quality and higher Return on Assets (ROA). Furthermore, regional

diversification enables banks to leverage wider deposit mobilization and attain economies of scale, both of which support financial growth, according to Mutua (2014). Furthermore, diverse banks are better equipped to handle economic uncertainty and competitive challenges by expanding their revenue streams and consumer outreach, according to Ongore and Kusa (2013).

However, Kamau (2011) warned that when banks enter new countries without adequate strategic alignment or market understanding, regional diversification can result in considerable operational and regulatory expenses. Waniru (2015) pointed out that quick growth without sufficient internal capacity could reduce profitability because of higher overhead and ineffective management. Therefore, even though geographical diversification has typically improved Kenyan commercial banks' financial performance, its effectiveness primarily rests on market research, execution efficiency, and the capacity to properly manage cross-regional risks.

Furthermore, Muriithi, Muturi, and Waweru (2016) discovered that the association between risk management techniques and bank performance is strongly moderated by firm size, with larger banks being better equipped to endure economic shocks and absorb risks. Additionally, because of their resource capacities and diverse clientele, which improve efficient product deployment and cross-selling tactics, Mwangi (2014) found that the influence of product diversity on financial performance is more noticeable in larger banks. However, Kamau (2011) pointed out that smaller banks frequently encounter obstacles in achieving comparable advantages because of their restricted reach and greater relative operational expenses.

But there are drawbacks as well. Wanjiru (2015) noted that after a certain point, growing in size might result in bureaucratic inefficiencies, slower decision-making, and less

flexibility, all of which could offset the performance benefits. As a result, whereas company scale increases the performance-enhancing effects of strategic initiatives, the advantages depend on efficient management and organizational design

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The purpose of the study was to investigate the relationship between diversification factors and Kenyan commercial banks' financial viability. With this goal in mind, this chapter examines the results, conclusion, and suggestions for more research based on the particular goals of the study. The chapter triangulates the findings with the literature review, which is more significant.

5.2 Summary of Findings

5.2.1 Income Diversification and Financial Performance of Commercial Banks

The financial performance of Kenya's commercial banks was positively and significantly impacted by income diversification. Increased income diversity will therefore result in better commercial banks' financial performance. According to the study's findings, revenue diversification is crucial for enhancing commercial banks' overall financial performance as well as their financial security.

In order to improve financial performance and reduce risk, Kenyan commercial banks are increasingly using income diversification as a strategic tool. Income diversification and financial performance are positively correlated, according to a number of studies. This is especially true when banks switch from traditional interest-based revenue to non-interest revenue streams such fees, commissions, and trading income.

5.2.2 Product Diversification and Financial Performance of Commercial Banks

Product diversification positively significantly impacted Kenya's commercial banks' financial performance. Thus, the study concludes that a major factor in the performance of the commercial banks is product variety. Consequently, it is determined that more product variety

by commercial banks will result in improved financial performance. The financial performance of Kenya's commercial banks is significantly positively correlated with the three diversity components under study: product, geographic, and income diversification. The study concludes that the current financial performance of Kenya's commercial banks can be largely explained by the effectiveness of the diversification policies that have been implemented. The financial performance of the commercial banks will be significantly improved as a result of the increasing development and application of new diversification measures.

To improve financial performance, boost competitiveness, and satisfy changing client demands, product diversification has emerged as a crucial element of Kenyan commercial banks' expansion strategy. Banks can create alternate revenue streams and lessen their reliance on conventional interest-based revenue by providing a wider range of financial products, such as trade finance, asset management, mobile banking, and insurance services. In summary, product diversification has a generally positive effect on the financial performance of Kenyan commercial banks when driven by market research, innovation, and strategic alignment. However, its effectiveness depends on how well banks manage associated costs, complexity, and execution risks.

5.2.3 Geographical Diversification and Financial Performance of Commercial Banks

The financial success of Kenya's commercial banks was positively and significantly correlated with geographic diversification. Therefore, the study concludes that geographical diversification is crucial for improving the commercial banks' financial performance by expanding their organizations' reach and, consequently, their returns. Commercial banks should make sure they are completely diversified throughout all geographic areas in order to enhance their financial performance.

Kenyan commercial banks looking to improve their financial performance by spreading their operations throughout other regions, geographic diversification has become a key strategic tactic. By using this tactic, banks can expand their clientele, share risks, and access new markets. Empirical evidence from Kenya generally supports a positive link between geographical diversification and financial performance, though the impact varies depending on the scale and management of expansion.

5.2.4 Firm Size as A Moderating Variable and Financial Performance of Commercial Banks

The association between the financial performance of Kenyan commercial banks and many strategic parameters, including product, geographic, and revenue diversification, is significantly moderated by firm size. The benefits of strategic initiatives on performance can be amplified for larger banks due to economies of scale, increased market presence, and easier access to financing. Due to their capacity to take advantage of extensive infrastructure, cutting-edge technology, and wider clientele, larger commercial banks in Kenya typically report better financial performance metrics such as Return on Equity (ROE) and Return on Assets (ROA).

In conclusion, one of the main moderating factors that can either bolster or weaken the relationship between strategic choices and financial performance in Kenyan commercial banks is firm size. Although the effect is generally favorable, effective scale management is necessary to prevent decreasing returns.

5.3 Conclusion

5.3.1 Income Diversification and Financial Performance of Commercial Banks

According to the results, income diversification should be among the key pillars of commercial banks to stay competitive and improve overall performance. This viewpoint emphasized how commercial banks can prioritize both layering and categorizing diverse incomes for customers while providing for the financial demands of investors. The need to integrate strategies with competitive constraints was reflected in the support for updating income diversifications, demonstrating an understanding of the dynamic market environment.

5.3.2 Product Diversification and Financial Performance of Commercial Banks

The results of the study demonstrated how crucial it is to comprehend product diversification in commercial banking environments, as it is necessary for efficiently managing limited resources, such as operational funds. The research further reveals that having a solid product diversification strategy can help commercial banks avoid unforeseen losses and navigate the complicated and dynamic world of global banking. Commercial banks, which differ from other economic sectors in that they deal with the critical and sensitive sector of the economy that handles direct money due to their nature of business, were most affected by this revelation. Additionally, the study demonstrated a sophisticated and comprehensive nature of challenges reminiscent of financial institutions in managing liquid cash flows by acknowledging the merits and demerits of unwarranted banking product proliferation. This data was in line with more comprehensive research that showed the need for careful and scrutinized feasibility studies and risk evaluation assessments to increase commercial banking business profitability.

5.3.3 Geographical Diversification and Financial Performance of Commercial Banks

The study findings demonstrated how important it was for commercial banks to comprehend the entire process of branch expansion while minimizing operational costs, because doing so was essential for effective financial performance and fiscal efficiency. Additionally, the study established that geographical diversification enhanced the overall financial performance of the commercial banks, even if it's not on the same level as the effect of the income diversification and product diversification. Commercial banks deal with a sensitive commodity, which is money; hence, this idea was more relevant to their setting than it was to other economic sectors because a monetized population catalyzes the economy. Reducing operational costs brought about by distance and increasing overall profitability requires empowering bank employees with all the proper banking and financial operational procedures.

5.4 Recommendations

According to the study, the financial performance of Kenya's commercial banks is positively impacted by the diversity components examined, including product, regional, and income diversification. Therefore, it is advised that suitable frameworks be established for the implementation of diversification policies by all Kenyan commercial banks. Additionally, the report advises commercial bank management to prioritize the development and execution of diversification. Therefore, in addition to defining the diversification strategies, they should continuously assess and gauge their effectiveness.

Prior to implementing any specific diversification approach, the study advises commercial bank management to assess the plan's appropriateness in light of the organization's structure, culture, and policies, as well as the overall goals. This will guarantee that the implemented diversification methods may achieve and exceed their predetermined

goals and aims. In order to boost their financial performance and safeguard the capital of their shareholders, it was also advised that the banks take advantage of other opportunities to increase operational efficiency. The government and other regulatory agencies should establish regulations that encourage commercial banks to diversify, according to the report.

This will guarantee that the usage and implementation of diversification by banks and other businesses across various industries is effective, efficient, and consistent. This will also help to lessen the difficulties that arise during the process of putting these techniques into practice, increasing their overall efficacy and the outcomes that they produce. In order to reduce the likelihood of unanticipated hazards from the external environment that could compromise the efficacy of these tactics, the study also suggests that the Kenyan government and other policymakers make sure that the macroenvironment remains steady and stable.

5.5 Suggestions for Further Study

Future studies should also consider a comparative analysis of different banking models and their associated financial policies in order to determine the most effective methods for cutting losses while maintaining relationships with customers. Research might look at how various strategies—from strict financial processes to more flexible, humane methods—affect profitability and customer satisfaction. Examining these relationships across various banks in Kenya may provide insightful suggestions for raising operational effectiveness and bolstering financial stability, which would strengthen the banking industry's overall resilience in Kenya.

A study on *"The Effect of diversification on financial performance of commercial banks in Kenya"* contributes meaningfully to the body of knowledge in several ways, particularly within the context of emerging markets and the retail sector. The study applies theories of global financial management, including agency theory and working capital optimization, to the local setting of Kenyan banks. By providing empirical data from an African emerging

economy, this study fills a major vacuum in the literature, which primarily focuses on developed economies.

Kenyan commercial banks confront particular difficulties, such as shifting customer spending power, interruptions in the political setting, and unofficial competition. By analyzing the effects of financial indicators on profitability in this banking sector, this study contributes sector-specific insights. These results aid in adjusting budgetary plans to Kenyan banks' operating realities.

The results of the study offer managers and legislators useful suggestions. The study helps bank managers allocate resources more effectively by identifying the product streams that have the biggest impact on profitability. The study provides data-driven insights for policymakers that can guide measures like regional growth.

There is still a dearth of research on banking and expansion in Sub-Saharan Africa. The empirical data from this study enhances the scholarly basis for upcoming longitudinal or comparative research. It encourages more thorough financial study in African economies by requesting further research into other sectors or areas in Kenya and elsewhere.

The study illustrates how daily operational choices impact overall profitability by comparing financial measurements (such as net profit margin and return on assets) with operational metrics. For small and medium banks to incorporate financial management into strategic planning, this link is essential.

5.6 Limitations

The fact that the study only included three independent variables— product diversification, geographical diversification, and income diversification—was one of its drawbacks.

Additionally, this analysis only covered commercial banks that were active in Nairobi County.

The study period was only five years, and there were only forty-two data samples. Expanding the panel data series for a longer period of time may give more comprehensive results together with a more wider data base will unveil interesting and concise revelations. Commercial banks may be able to develop targeted campaigns that leverage social media to promote responsible retail borrowing and timely repayments by understanding these links. Additionally, looking into how regional traditions and cultural factors affect financial behavior would provide a deeper comprehension of the challenges and motivations underlying customers' depositing and borrowing selections.

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APPENDICES

APPENDIX I:

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KCA UNIVERSITY SCIENTIFIC AND ETHICS REVIEW COMMITTEE

REF: **KCAU/SERC/69** **Date: 24th APRIL 2025**
TO: **FRANCIS MAINA OTIENO (17/04053)**

Dear Sir/Madam

RE: DIVERSIFICATION, FIRM SIZE AND THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

This is to inform you that KCA University Scientific Ethics Review Committee (KCAUSERC) has reviewed and approved your above research proposal. Your application approval number is ***KCAUSERC SOB69***. The approval period is ***24th APRIL 2025 – 24th APRIL, 2026.***
This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments, MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by ***KCAUSERC***.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to KCAU***SERC*** within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to ***KCAUSERC*** within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to ***KCAUSERC***.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://research-portal.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely,

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **449185**

Date of Issue: **10/May/2025**

RESEARCH LICENSE

This is to Certify that Mr.. FRANCIS MAINA OTIENO of KCA University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: DIVERSIFICATION, FIRM SIZE AND THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA for the period ending : 10/May/2026.

License No: **NACOSTI/P/25/4173608**

449185

Applicant Identification Number

Deputy Director
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

APPENDICES II: LIST OF COMMERCIAL BANKS IN KENYA

1) Absa Bank Kenya Plc
2) Access Bank (Kenya) PLC
3) African Banking Corporation Limited
4) Bank of Africa Limited
5) Bank of Baroda (K) Limited
6) Bank of India
7) Caritas Microfinance Bank Limited
8) Citibank N.A. Kenya
9) Consolidated Bank of Kenya Limited
10) Co-operative Bank of Kenya Limited
11) Credit Bank Plc
12) Development Bank of Kenya Limited
13) Diamond Trust Bank Kenya Limited
14) DIB Bank Kenya Limited
15) Ecobank Kenya Limited
16) Equity Bank Kenya Limited
17) Family Bank Limited
18) Faulu Microfinance Bank Limited
19) Guardian Bank Limited
20) Gulf African Bank Limited
21) Habib Bank A.G Zurich
22) HFC Limited
23) I&M Bank Limited
24) KCB Bank Kenya Limited
25) Kenya Women Microfinance Bank Limited
26) Kingdom Bank Limited
27) Middle East Bank (K) Limited

28) National Bank of Kenya Limited
29) NCBA Bank Kenya PLC
30) Paramount Bank Limited
31) Prime Bank Limited
32) Rafiki Microfinance Bank Limited
33) SBM Bank Kenya Limited
34) Sidian Bank Limited
35) Spire Bank Limited
36) Stanbic Bank Kenya Limited
37) Standard Chartered Bank (K) Limited
38) UBA Kenya Bank Limited
39) Victoria Commercial Bank Plc

(Source: KBA, 2024)

APPENDIX III: DATA SHEET No

(Kenya Bankers Assoc. 2024)	Name of Bank	Income Divers. Ratio - %	Geog. Divers, Ratio- %	Prod. Divers. Ratio	Bank Share Ratio	Return on Equity Ratio
1	Absa Bank (K) Ltd	25.8	0	26.3	6.6	$(12{,}7 \times 10^9)/(50 \times 10^9) = 25.4$
2	Access Bank (K) Ltd	36.1	2.3	12.4	0.2	$(765 \times 10^6)/5000 = 15.3$
3	African Banking Corporation Ltd	28.7	3.5	5.5	0.5	$(30 \times 10^6)/319.15 \times 10^6) = 9.4$
4	Bank of Africa Limited	23.6	4.1	4.2	0.6	$(53.25 \times 10^6)/500) = 10.65$
5	Bank of Baroda (K) Ltd	18.7	3.2	7.1	2.8	$(18.95 \times 10^6)/(10{,}000) = 18.95$
6	Bank of India	14.7	23	23.1	1.8	$(19.70 \times 10^6)/(15 \times 10^9) = 13.13$
7	Caritas Microfinance Bank Ltd	17.3	11	27.6	0.1	$(350 \times 10^6/(10 \times 10^7) = 35$
8	Citibank N.A Kenya	19.8	17.2	24.7	2.3	$(3.05 \times 10^4) / (5000) = 6.1$
9	Consolidated Bank of Kenya Ltd	17.3	16	21.9	0.2	$(6.55 \times 10^4) / (5000) = 13.1$
10	Cooperative Bank (K) Ltd	36.1	45	37.5	8.8	$(2.21 \times 10^6) /1.0 \times 10^4) = 22.1$
11	Credit Bank Plc	2.1	15.2		0.3	$(7.5 \times 10^4)/(1.0 \times 10^4)$
12	Development Bank of Kenya Ltd	5.4	18.4	21.9	0.3	$(17.37 \times 10^6)/(9.0 \times 10^3) = 19.3$
13	Diamond Trust Bank (K) Ltd	6.1	13.2	31.3	0.4	$(5.88 \times 10^6)/(6.0 \times 10^3) = 9.8$
14	DIB Bank (K) Ltd	1.9	14.3	11.3	0.4	$6.5 \times 10^6)/(1.0 \times 10^4$
15	Ecobank (K) Ltd	1.1	15.1	0.9	1.0	$1.4 \times 10^5)/(1.0 \times 10^4) = 1.4$
16	Equity Bank (K)	43.9	54	43.1		$(1.22 \times 10^6)/(1.0$

(Kenya Bankers Assoc. 2024)	Name of Bank	Income Divers. Ratio - %	Geog. Divers, Ratio- %	Prod. Divers. Ratio	Bank Share Ratio	Return on Equity Ratio
	Ltd					x 10^4) = 12.2
17	Family Bank (K) Ltd	34.2	21.9	25.6	1.8	(9.78 x 10^6)/(6.0 x 10^3) = 16.3
18	Faulu Microfinance Bank (K) Ltd	8.9	11.2	13.9	1.7	(5.04 x 10^6)/(7.0 x 10^3) = 7.2
19	Guardian Bank Ltd	9.6	3.4	7.7	0.4	(2.2 x 10^6)/(1.0 x 10^4) = 2.2
20	Gulf African Bank Ltd	23.9	5.6	12.8	0.5	(3.6 x 10^6)/(5.0 x 10^3) = 7.2
21	Habib Bank A.G Zurich	10.3	12	23.1	0.3	(1.467 x 10^6)/(6.0 x 10^3) = 24.6
22	HFC Ltd	30	15	33.9	0.8	(2.60 x 10^5)/(5.0 x 10^3) = 5.2
23	I&M Bank Ltd	26.5	9	26.5	5.4	(1.008 x 10^6)/(6.0 x 10^3) = 16.8
24	KCB Bank (K) Ltd	33	34	35.1		(2.46 x 10^6)/(1.0 x 10^4) = 24.6
25	Kenya Women Microfinance Bank Ltd	22.5	12.5	7.4	0.2	(7.74 x 10^5)/(6.0 x 10^3) = 12.9
26	Kingdom Bank Ltd	12.6	8.7	7.6	0.2	(5.70 x 10^5)/(5.0 x 10^3) = 11.4
27	Middle East Bank (K) Ltd	13.4	9.2	12.5	0.2	(1.24 x 10^6)/(1.0 x 10^4) = 12.4
28	National Bank (K) Ltd	26	13.2	11.7	1.7	(3.65 x 10^6)/(5.0 x 10^3) = 7.3
29	NCBA Bank (K) Ltd	46.5	19	46.5		(2.097 x 10^6)/(9.0 x 10^3) = 23.3
30	Paramount Bank Ltd	17	11	13	0.2	(1.23 x 10^6)/(1.0 x 10^4) = 12.3
31	Prime Bank (K) Ltd	19	8.2	5.6	2.7	(5.25 x 10^6)/(5.0 x 10^3) = 10.5
32	Rafiki Microfinance Bank	21	11.5	13.4	0.1	(4.8 x 10^6)/(5.0 x 10^3) = 9.6

(Kenya Bankers Assoc. 2024)	Name of Bank	Income Divers. Ratio - %	Geog. Divers, Ratio- %	Prod. Divers. Ratio	Bank Share Ratio	Return on Equity Ratio
	Ltd					
33	SBM Bank (K) Ltd	9.3	10.2	4.2	1.1	$(7.2 \times 10^5)/(1.0 \times 10^4) = 7.2$
34	Sidian Bank Ltd	8.4	6.3	2.1	0.6	$(5.0 \times 10^5)/(1.0 \times 10^4) = 5.0$
35	Spire Bank Ltd	1.2	3.2	1.2	0.2	$(7.0 \times 10^3)/(5.0 \times 10^3) = 1.4$
36	Stanbic Bank (K) Ltd	21.3	14.3	35.3	5.8	$(9.65 \times 10^5)/(9.0 \times 10^3) = 19.3$
37	Standard Chartered Bank (K) Ltd	18.7	39.2	36.4	5.9	$(3.01 \times 10^6)/(1.0 \times 10^4) = 30.1$
38	UBA Kenya Bank Ltd	16.7	4.2	1.2	0.4	$(8.2 \times 10^5)/(1.0 \times 10^4) = 8.2$
39	Victoria Commercial Bank Plc	40	1.2	13.9	0.7	$(2.15 \times 10^5)/(1.0 \times 10^3) = 4.3$