



CREDIT RISK MANAGEMENT, COST OF DEBT AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA: A CASE STUDY OF THE NATIONAL COMMERCIAL BANK OF AFRICA, HEADQUARTERS NAIROBI

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ABSTRACT :

Commercial banks' performance is largely determined by their financial leverage. This study investigated the effect of financial leverage on the performance of Kenya's NCBA Bank. It focused on credit risk management practices, the cost of debt, capital structure decisions, and interest rate volatility, all of which influenced the bank's profitability, liquidity, and overall stability. The purpose of the study was to examine how credit risk management and cost of debt affected financial performance. The research was anchored on three key financial theories: the Trade-Off Theory, the Pecking Order Theory, and the Agency Theory. A descriptive research design was adopted, and data were collected through structured questionnaires administered to a sample of 148 employees, of which 136 responses were properly completed and analyzed. Descriptive statistics showed that respondents generally agreed that credit risk management and cost of debt were key drivers of financial performance. The overall model was statistically significant ($F = 5.675$, $p = 0.000$) with an R-squared value of 0.148, indicating that the four independent variables explained 14.8% of the variation in financial performance at NCBA Bank. The study recommended that NCBA Bank strengthen its credit risk management frameworks, optimize the cost of borrowing through strategic debt sourcing, and enhance interest rate risk management to improve profitability. Although capital structure was not a significant predictor in this context, it was suggested that it be regularly reviewed to ensure financial stability. Future research was recommended to expand the study to include multiple banks for generalizability, consider additional financial and operational variables, adopt longitudinal designs, and possibly use mixed methods to uncover deeper insights into leverage-performance dynamics. These efforts would help build a broader and more nuanced understanding of financial performance in Kenya's banking sector.

Key words: Credit risk management, Cost of debt, Financial Performance, Commercial Banks

1.0 Introduction and Background of the Study

Financial leverage is essential in banking sector, as it involves strategic use of borrowed funds to enhance returns on investment. By leveraging debt, banks can expand their operational capacity, increase their lending potential, and strengthen their competitive position in the market (Zelalem, 2020). This approach allows financial institutions to maximize profitability while maintaining a relatively lower equity base. However, while financial leverage can be beneficial, excessive reliance on debt can expose banks to significant risks. High leverage levels may lead to liquidity challenges, making it difficult for a bank to meet its short-term obligations (Angima, Miroga, & Otinga, 2022). Effective risk management, regulatory compliance, and prudent financial planning are necessary to ensure that leverage is used optimally without compromising the institution's long-term sustainability (Enria, & Woods, 2022).

The concept of financial leverage is widely studied in global financial markets. According to Modigliani and Miller (1958), under ideal market conditions, financial leverage does not affect a firm's value. However, in reality, capital structure decisions significantly impact banking performance due to market imperfections such as taxes, bankruptcy costs, and asymmetric information (Berger & Bouwman, 2020). In developed economies, banks utilize leverage to optimize returns on equity while managing risks through regulatory frameworks such as Basel III, which imposes capital adequacy requirements to ensure financial stability (BIS, 2019). Studies in the U.S. and European banking sectors indicate that excessive leverage contributed to the 2008 financial crisis by exposing banks to liquidity and insolvency risks (Admati & Hellwig, 2020). In contrast, well-capitalized banks with controlled leverage ratios tend to have higher resilience and profitability.

In Africa, financial leverage plays a dual role: enabling expansion while posing systemic risks. The banking sector in Africa is characterized by high-interest margins, underdeveloped capital markets, and significant reliance on short-term debt financing (Beck & Cull, 2020). Many African banks face regulatory pressures to maintain leverage within acceptable limits, but challenges such as limited access to long-term funding and high non-performing loans persist. Empirical studies suggest that financial leverage positively influences bank performance when managed prudently. A study by Naceur and Omran (2020) on Middle Eastern and North African banks found that higher leverage increases return on equity but may also heighten financial vulnerability. The risk-return trade-off is particularly evident in countries with weak regulatory enforcement and macroeconomic instability.

According to a study by Murikwa (2020), Kenyan commercial banks' financial performance and leverage were positively correlated. Likewise, Njoroge and Mugambi's (2021) study made clear that, good risk management techniques are necessary. Financial leverage is essential to bank operations in Kenya, which has one of the most vibrant banking sectors in East Africa. The Central Bank of Kenya enforces capital adequacy regulations under the Basel framework to ensure financial stability (CBK, 2022). Kenyan banks, including NCBA Bank, leverage debt financing to expand credit facilities and enhance profitability. The bank's financial statements indicate a strong capital base, with a leverage ratio that aligns with regulatory requirements. NCBA has expanded its asset base through credit offerings, digital banking solutions, and corporate lending. However, like other Kenyan banks, NCBA faces risks associated with leverage, such as loan defaults and economic downturns (NCBA Annual Report, 2023).

NCBA Bank, a prominent Kenyan commercial bank, has experienced substantial growth, partly due to strategic financial leverage practices. The bank's 2023 financial statements indicate a 15.3% increase in customer deposits and an 18.6% growth in assets, reflecting its leverage strategies. Financial leverage is a double-edged sword in the banking sector, affecting profitability, risk exposure, and financial stability. Globally, leverage management is critical for bank performance, while in Africa, it facilitates expansion despite regulatory and economic challenges. In Kenya, NCBA Bank has leveraged debt strategically, but it must continuously assess its risk exposure to maintain financial health. Future research should explore the impact of digital transformation on leverage strategies in African banking (Murikwa, 2020). The general objective of the study *To determine the effect of financial leverage and financial performance of commercial banks in Kenya with a focus on The National Commercial Bank of Africa Headquarters Nairobi*

1.1 Credit Risk Management Practices

Identification, evaluation and mitigation of prospective losses are all part of credit risk management, *if borrowers fail to meet their financial obligations. Effective practices include the use of credit scoring models, setting collateral requirements, and continuous monitoring of credit exposures. To fully assess and manage credit risk, financial institutions frequently use frameworks such as the CAMEL grading system (McKinsey & Company, 2023). Rising interest rates, high inflation, and geopolitical tensions are some of the factors that have contributed to the increased volatility of the financial environment in recent years. The significance of strong credit risk management procedures has been highlighted by these circumstances. It is recommended that financial institutions review and improve their credit risk management strategies in order to successfully handle economic uncertainty.*

Monitoring loan portfolios, evaluating borrower creditworthiness, and putting policies in place to reduce possible losses from non-performing loans are all made easier by efficient credit risk management. Because they are better able to handle bad debts and preserve asset quality, organizations with strong credit risk management frameworks typically report stronger profitability and financial stability (Njanike, 2020). Interest income, a major source of income for many financial institutions, is protected when default rates are decreased through the use of appropriate risk assessment tools, prompt loan monitoring, and adherence to lending standards.

According to Owusu-Antwi and Antwi (2020), by raising loan default rates and eroding investor trust, inadequate credit risk management can seriously jeopardize an institution's financial stability. Ineffective credit risk management can result in a large number of non-performing loans (NPLs), which deplete capital reserves and necessitate increased provisioning. This reduces the bank's capacity to make additional loans, which limits revenue production and may result in liquidity issues. Financial performance may also be further strained by regulatory penalties for subpar credit management techniques. Because they handle credit-related risks proactively, companies that invest in ongoing employee training, use sophisticated credit scoring algorithms, and implement strict credit appraisal procedures typically outperform rivals over the long term.

1.2 Cost of Debt

According to a study by Murikwa (2020), *factors influencing the cost of debt include prevailing interest rates, the company's creditworthiness, and broader economic conditions. By lowering interest costs, a reduced cost of debt can improve a business's financial performance. Conversely, a higher cost of debt can strain a company's finances, especially if it leads to increased leverage and potential financial distress. Companies must carefully manage their debt levels and strive to maintain favourable credit ratings to secure debt at reasonable costs. Effective debt management strategies are essential to balance the benefits of leverage against the risks associated with high debt costs.*

According to Musiega et al. (2020), because it affects a company's capital structure and profitability, the cost of debt has a big impact on its financial success. By lowering interest costs, a reduced cost of debt can improve financial performance by raising net income and return on equity. Businesses that are able to get loans at advantageous interest rates frequently demonstrate better financial performance because interest payments are tax deductible, hence reducing the total cost of capital. As a result, businesses have more money to invest in lucrative projects, grow their business, or increase shareholder value. Thus, a company's competitive edge in the market can be strengthened and financial performance optimized with a strategic balance between debt and equity and a controllable cost of debt.

A high cost of debt can have a detrimental effect on financial performance by making interest payments more onerous, decreasing profitability, and possibly causing financial trouble. Businesses that incur high interest costs as a result of unfavourable loan terms or low credit ratings are more likely to experience lower profitability and less financial flexibility, claim Chepkorir and Moronge (2020). This could make them more susceptible to economic shocks or downturns and limit their capacity to reinvest earnings into expansion prospects. Furthermore, excessive debt that has significant servicing costs can undermine overall financial sustainability, lower stock values, and erode investor confidence. Thus, maintaining sound financial performance requires controlling the cost of debt through sensible borrowing choices and efficient creditworthiness techniques.

1.3 Financial Performance

A company's capacity to turn a profit and provide value for its shareholders is gauged by its financial performance. By examining these measures, one may gain knowledge about the business's overall financial health, profitability, and operational effectiveness. A company's ability to effectively manage risks like credit and interest rate variations are some of the elements that affect its financial success. To improve financial performance and guarantee

long-term sustainability, it is crucial to put best practices in risk management into practice and to keep the right ratio of debt to equity financing (Darno and Gelatan, 2025).

Finding, evaluating, and reducing the possibility that a borrower or counterparty won't fulfil their responsibilities are all part of effective credit risk management. *Robust practices in this area are essential for maintaining financial stability and performance. Establishing a suitable credit risk environment and maintaining appropriate credit administration processes to manage credit risk effectively is essential. In recent years, economic volatility has heightened the need for sound credit risk management. Factors such as rising interest rates, high inflation, and geopolitical tensions have deepened uncertainty for bank credit exposures (Enria, & Woods, 2022).*

1.4 Statement of the Problem

While financial leverage drives growth and profitability, excessive use can lead to financial instability. NCBA Bank's consistent use of debt financing has supported its expansion, but the sustainability of these practices is uncertain amid evolving economic conditions. The intricate connection between bank performance and financial leverage has been brought to light by recent studies. This implies that, higher debt levels may burden banks with increased interest obligations, potentially diminishing returns. Additionally, a study examining the moderating role of artificial intelligence (AI) found that while financial leverage negatively affects firm performance, the integration of AI can mitigate these adverse effects, leading to improved ROE (Darno, and Gelatan, 2025).

Despite these insights, there remains a gap in understanding how financial leverage specifically influences NCBA Bank's financial performance, considering its unique market position and strategic initiatives. Furthermore, the interplay between financial leverage and performance indicators at NCBA Bank has not been thoroughly explored (Chukwu, & Efang, 2025). Given the evolving economic conditions, it is core to investigate how NCBA Bank's use of debt financing affects its financial performance. This study will bridge this gap through establishing ways financial leverage affects NCBA Bank's financial performance and focusing on key indicators including ROA, ROE, and liquidity ratios. Policymakers, regulators, and financial institutions will find the findings useful in gaining a better understanding of the sustainability of debt financing processes in Kenyan commercial banks. Previous research has mostly examined how leverage affects corporate businesses, with little attention paid to Kenyan commercial banks. Furthermore, not enough research has been done on how financial leverage interacts with NCBA Bank performance metrics including ROA, ROE, and liquidity ratios. By examining a link that connects financial leverage and NCBA Bank's financial performance, this study will seek to close this gap.

2.0 LITERATURE REVIEW

2.1 Theoretical Literature review

Understanding connection between bank performance and financial leverage requires a strong theoretical basis. The Trade-Off Theory, which describes how businesses balance debt and equity to enhance performance while reducing financial distress, serves as the foundation for this investigation. The anchor theory is further supported by three auxiliary theories: the Pecking Order Theory, Agency Theory, and Modern Portfolio Theory. These theories shed light on various factors influencing financial performance, including interest rate volatility, capital structure, cost of debt, and credit risk management.

2.1.1 Trade-Off Theory

Kraus and Litzenberger's (1973) Trade-Off Theory is still a mainstay of corporate finance, especially when it comes to describing how businesses choose their best capital structures. According to the idea, businesses weigh the possible costs of financial distress, agency conflicts, and bankruptcy risks against the advantages of debt financing, such as tax shielding and higher returns on equity. The theory basically says that when the marginal benefit of debt is equal to its marginal cost, there is an optimal capital structure.

A major critique of this theory is that it assumes firms have precise knowledge of their risk-return trade-offs and can easily determine an optimal leverage level. In reality, firms especially in dynamic financial environments like Kenya's banking sector face uncertainty and regulatory constraints that complicate such optimization. Additionally, the theory may not fully account for behavioral factors, market imperfections, or managerial risk aversion that influences financing decisions (Maxwell, 2020).

The theory relevance to this study lies in its direct connection to the financial leverage decisions of commercial banks such as NCBA Bank. As banks strive to balance profitability and solvency, they must evaluate the advantages of using debt to expand credit facilities while managing the risks of over-leverage. This study applied the theory to assess how credit risk management, cost of debt, capital structure, and interest rate volatility influence the bank's financial performance. For instance, NCBA Bank's ability to maintain an optimal leverage ratio determines its capacity to lend sustainably without exposing itself to insolvency risks (Enria & Woods, 2022).

Financial institutions also use the Trade-Off Theory to control credit risk, making sure that lending policies meet capital adequacy and risk tolerance requirements. Because excessive leverage increases exposure to default risk, sound credit risk management techniques including portfolio diversification, stress testing, and risk-based lending are crucial. In order to avoid systemic crises, the Central Bank of Kenya mandates that banks balance their exposure to risk and debt use through prudential standards (Basel Committee on Banking Supervision, 2025).

Another component that is consistent with the Trade-Off Theory is the cost of debt. Despite the tax benefits of debt, excessive borrowing increased the risk of default and, consequently, borrowing costs. Financially stable banks maintain optimal leverage levels where the cost of debt does not erode its benefits. Empirical findings suggest that banks that manage leverage efficiently tend to record stronger financial sustainability and competitive advantage (Chukwu & Efang, 2025). This aligns with NCBA Bank's financial strategy, where cost-effective debt management enhances profitability and stability. Finally, interest rate volatility influences how effectively banks apply the Trade-Off Theory. Variations in interest rates affect borrowing costs, loan pricing, and net interest margins, thereby impacting overall financial performance. Research indicates that institutions with adaptable capital structures

are better positioned to absorb rate shocks and maintain financial resilience (Darno & Gelatan, 2025). Therefore, this theory provided a theoretical foundation for understanding how NCBA Bank balances the use of debt for growth against the risks associated with financial instability.

2.1.2 Pecking Order Theory

A Myers and Majluf's (1984) Pecking Order Theory offers an alternate explanation for financial leverage choices. According to the hypothesis, businesses would rather use retained earnings for internal financing than debt or stock for external financing. Businesses are more likely to use debt than to issue fresh equity when external financing becomes necessary. This preference stems from the fact that internal funds don't have issuance costs, whereas external financing could come with higher transaction costs and knowledge asymmetry. This idea is especially pertinent to commercial banks since regulatory capital requirements and liquidity considerations have an impact on financial decisions. Therefore, before turning to external borrowing, banks typically prioritize retained earnings to finance loan portfolios and asset growth (McKinsey & Company, 2023).

A notable critique of this theory is that it assumes firms always have sufficient internal funds and ignores the possibility that firms may strategically use debt for tax advantages or to signal financial strength. Moreover, in highly regulated sectors such as banking, institutions often face mandatory capital adequacy thresholds that compel them to use both internal and external sources of financing. The theory also overlooks the influence of macroeconomic conditions and investor expectations on financing behavior, which can lead to deviations from the idealized pecking order (Zelalem, 2020).

The relevance of this theory on this study lies in its emphasis on internal financing and its implications for the key determinants of financial performance, credit risk management, cost of debt, capital structure, and interest rate volatility. In terms of credit risk management, banks that rely more on internal funds are less exposed to default risk and can maintain stronger credit portfolios. This is because they reduce dependency on external borrowing and thereby minimize excessive leverage. Empirical evidence shows that financial institutions adopting prudent earnings retention policies report lower default rates and enhanced loan portfolio quality, strengthening overall financial stability (IOSR Journals, 2022).

The cost of debt is another area where the Pecking Order Theory is applicable. According to this framework, banks that prioritize internal financing can maintain stronger credit ratings and negotiate favorable borrowing terms. Conversely, overreliance on external debt leads to higher financing costs due to perceived risk exposure. Studies reveal that institutions aligning their financing strategies with the Pecking Order Theory often record improved financial performance owing to reduced dependence on costly external borrowing (Njoroge & Mugambi, 2021).

Furthermore, institutions adhering to this approach maintain conservative leverage ratios, emphasizing financial resilience over aggressive expansion. This conservative financing structure ensures solvency during economic downturns and minimizes exposure to financial distress. Evidence indicates that firms with lower leverage and greater reliance on internal capital tend to achieve superior long-term profitability and operational stability (Murikwa, 2017).

In relation to this study, the Pecking Order Theory provided a theoretical basis for understanding how NCBA Bank's financing preferences influenced its financial performance. The study demonstrated that the bank's tendency to utilize retained earnings before external borrowing aligns with the theory's postulates, thereby shaping its credit risk management practices, cost of debt, and capital structure decisions in pursuit of sustainable profitability (Wambua & Otieno, 2024).

2.1.3 Agency Theory

Conflicts The Agency Theory, developed by Jensen and Meckling (1976), examines the conflicts of interest that arise between principals (shareholders) and agents (managers) in organizations. The theory postulates that such conflicts occur when managers, who control day-to-day operations, pursue personal goals such as maximizing short-term profits or managerial benefits at the expense of shareholders' long-term wealth. Within the banking sector, these conflicts are particularly significant due to the complex nature of financial leverage and risk-taking behavior. When managers engage in excessive borrowing or risky lending to boost short-term returns, they expose banks to increased credit risk and potential financial instability. To minimize these conflicts, effective governance mechanisms, regulatory oversight, and incentive alignment systems are essential in ensuring that managerial decisions reflect the best interests of shareholders (Angima, & Otinga, 2022).

A key critique of the Agency Theory is that it assumes rational behavior and clearly defined relationships between managers and shareholders, which may not always exist in practice. It also overlooks external factors such as regulatory interventions, market competition, and macroeconomic pressures that influence managerial decision-making. Moreover, the cost of monitoring and controlling managerial behavior known as *agency cost* can be substantial, particularly in large, complex financial institutions. Despite these limitations, the theory remains highly relevant in explaining how governance and financial policies influence organizational performance.

This theory relates to this study lies in its application to leverage management and financial performance within commercial banks such as NCBA Bank. In terms of credit risk management, the theory helps explain how managerial decisions regarding loan approvals and debt exposure can either enhance or undermine financial stability. High leverage may incentivize managers to engage in risky lending practices to increase returns, thereby elevating credit risk. Conversely, strong governance structures such as independent risk management committees and internal audit systems help reduce agency conflicts and maintain prudent lending practices (McKinsey & Company, 2023).

Regarding the cost of debt, Agency Theory suggests that higher agency costs may increase borrowing costs because creditors perceive the institution as riskier when managerial interests are misaligned with shareholder goals. Similar to this, agency concerns impact capital structure decisions since businesses need to figure out the best debt and equity ratio to reduce agency expenses and maximize company value. Sound governance mechanisms ensure that managers select financing options that enhance profitability without exposing the firm to excessive risk (Poot, 2020).

In relation to interest rate volatility, Agency Theory provides insight into how managerial decision-making under fluctuating economic conditions affects a bank's financial performance. Managers driven by short-term incentives may increase leverage during low-interest periods, heightening vulnerability when rates rise. Therefore, NCBA Bank's adherence to sound governance practices and responsible leverage management aligns with the Agency Theory's emphasis on minimizing conflicts of interest to enhance financial performance (Nyambura & Kibet, 2024).

2.1.4 Modern Portfolio Theory

Harry Markowitz created the Modern Portfolio Theory (MPT) in 1952, and it highlights diversification as a key idea for risk management and return optimization. According to the hypothesis, by diversifying over a range of assets, investors can create efficient portfolios that optimize projected returns for a specific degree of risk. The basic idea is that by combining assets with imperfectly correlated returns, a portfolio's overall risk can be decreased. In the context of the banking industry, this theory is highly relevant in guiding institutions on how to manage credit risk and interest rate volatility through diversification strategies. By spreading lending portfolios across various sectors, borrower categories, and geographical regions, banks can reduce their vulnerability to market fluctuations and economic downturns, thereby achieving greater financial stability (Basel Committee on Banking Supervision, 2025).

A key critique of the Modern Portfolio Theory is that it relies heavily on the assumptions of rational investors, stable correlations, and normally distributed returns, conditions that rarely hold true in real-world financial markets. Moreover, the theory does not fully account for systemic risks, sudden market shocks, or behavioural biases that can influence investment and lending decisions. In the banking context, diversification alone may not eliminate credit and liquidity risks, especially when economic shocks affect multiple sectors simultaneously. Therefore, while MPT provides a useful foundation for risk management, it should be complemented by more dynamic and adaptive financial models that account for changing market conditions (Smith & Zhao, 2024).

The relevance of the Modern Portfolio Theory to this study lies in its application to the management of credit risk and interest rate volatility, which are critical components of financial performance. Banks such as NCBA Bank apply diversification principles by distributing their lending portfolios across multiple sectors to mitigate default risk and stabilize income streams. This approach helps protect the bank's profitability and liquidity during periods of market turbulence. Empirical evidence supports the idea that financial institutions with well-diversified credit portfolios tend to have lower default rates and enhanced financial resilience (Chukwu & Efanga, 2025).

Furthermore, the Modern Portfolio Theory complements other financial frameworks in explaining how banks make leverage-related decisions. While the Trade-Off Theory focuses on balancing the costs and benefits of debt and the Pecking Order Theory emphasizes financing preferences, MPT highlights how risk diversification supports sustainable financial performance. Together, these theories provide an integrated framework for understanding how NCBA Bank manages leverage, credit exposure, cost of debt, and interest rate fluctuations to achieve financial stability and long-term profitability within Kenya's dynamic banking sector (Otieno & Odhiambo, 2020).

2.2 Empirical Literature Review

2.2.1 Credit Risk Management and Financial Performance

Recent empirical studies have increasingly examined how credit risk management influences financial performance across different sectors. Maintaining profitability, reducing credit losses, and guaranteeing business sustainability all depend on efficient credit risk management procedures. However, the nature of this relationship often varies depending on industry context, governance structure, and technological adoption, creating a growing need for context-specific research to deepen understanding of credit risk management effectiveness (Smith & Zhao, 2024).

Noja et al. (2021) carried out an empirical investigation among European financial service firms to examine how board composition relates to financial performance and risk management disclosure. Drawing on data from 144 companies across 25 European countries obtained from the 2020 Thomson Reuters Eikon database, and employing Gaussian Graphical Models (GGMs) alongside Structural Equation Modeling (SEM), the study revealed that board features, particularly size, gender diversity, and the presence of a two-tier governance structure positively influenced risk management disclosure and led to better financial performance. These findings highlighted that strong corporate governance structures play a vital role in supporting effective credit risk management and overall financial success. However, the research primarily focused on financial institutions in developed economies, leaving a gap regarding how similar governance and credit risk management mechanisms function in developing countries such as Kenya, where organizational and regulatory environments differ considerably (Noja et al., 2021).

Poot (2020) examined the role of CRM and Credit and Collection Management Practices (CCMP) in promoting sustainability and profitability within private higher education institutions. Statistical methods were applied to assess four main CCMP dimensions: coordination, leadership, organization and personnel, and planning and their relationship with CRM components such as credit risk control and collection policies. Findings revealed a moderately positive relationship between well-structured CCMP frameworks and institutional profitability, indicating that efficient credit and collection practices enhance financial performance. Nonetheless, this study was confined to the education sector, which limits its applicability to other industries such as logistics or manufacturing that face different credit risk dynamics and operational challenges (Poot, 2020).

Effective credit risk control is strongly associated with increased profitability, according to Maxwell's (2021) investigation on the relationship between credit risk management tactics and financial performance. According to the survey, organizations who implemented strict credit risk management procedures saw improvements in risk mitigation and financial stability. However, it also observed that not all credit risk management practices yielded significant financial benefits, suggesting that their effectiveness may vary across different contexts and organizational structures. This highlights a research gap on the moderating role of contextual factors such as organizational culture, technology use, and regulatory frameworks in shaping the effectiveness of credit risk management practices across sectors (Maxwell, 2021).

In another study, Aziakpono and Sanga (2023) performed a bibliometric and systematic literature review on FinTech and SME financing from 2008 to 2022. Their analysis indicated that empirical research on FinTech-related credit risk management practices has expanded significantly since 2018, primarily employing quantitative methods based on survey and platform data. The study revealed that FinTech innovations have improved credit risk management processes by enhancing data precision, minimizing transaction costs, and reducing information asymmetry. Additionally, FinTech adoption

has streamlined lending procedures from credit screening to repayment, thereby improving efficiency and financial inclusion. However, rapid technological adoption has also introduced new risks such as data privacy issues and cyber threats. The research did not empirically test how FinTech-driven credit risk management practices directly impact financial performance, especially in emerging economies like Kenya where digital finance ecosystems are still maturing (Aziakpono & Sanga, 2023).

Overall, the reviewed studies consistently affirm that effective credit risk management contributes positively to financial performance by enhancing profitability, stability, and sustainability. However, most existing research has been conducted in developed economies or within the financial and educational sectors, leaving limited evidence on how credit risk management practices influence financial outcomes in logistics companies operating in developing markets. Therefore, the purpose of this study is to close these gaps by investigating the relationship between credit risk management methods and the financial performance of Kenyan logistics companies, offering a contextualized and sector-specific knowledge of the efficacy of credit risk management.

2.2.2 Cost of Debt and Financial Performance

A major subject in contemporary corporate finance, the dynamic relationship between a firm's cost of debt and its financial performance has been better understood thanks to recent empirical studies. The effective rate at which a business repays borrowed money is known as the cost of debt, and it has a big impact on long-term financial stability, capital structure, and profitability. Prior studies have examined various determinants of debt costs, including firm-specific characteristics, macroeconomic conditions, and regulatory frameworks. However, notable research gaps persist in understanding how the cost of debt interacts with firm performance across different sectors and economic contexts. Furthermore, the literature remains limited in integrating emerging dimensions such as environmental, social and governance factors and corporate governance practices into analyses of debt cost determinants (Otieno, 2024).

Businesses with good ESG credentials typically have lower borrowing costs because lenders view them as less hazardous and more sustainable borrowers, according to Wang and Chen's (2023) investigation on the relationship between ESG performance and loan costs. Companies with robust ESG ratings typically benefit from favourable loan terms and reduced interest rates due to perceived lower default risks. Conversely, Smith et al. (2022) noted that firms heavily investing in ESG activities may encounter higher debt costs, particularly when such initiatives involve uncertain or long-term financial payoffs. These contradictory findings suggest that the influence of ESG performance on debt costs is not uniform and may depend on industry characteristics and the maturity of ESG integration in lending decisions. Thus, a key research gap exists in empirically validating how ESG adoption shapes debt financing outcomes in developing economies, where sustainability reporting and ESG compliance are still evolving (Wang & Chen, 2023; Smith et al., 2022).

By affecting managerial responsibility and investor trust, corporate governance also has a significant impact on the cost of debt. According to Johnson and Li (2021), companies with robust governance structures which include independent boards, efficient oversight, and open disclosure procedures are more likely to be able to obtain financing at reduced interest rates. Similarly, Nguyen and Tran (2023) observed that diversified ownership structures and gender-diverse boards enhance investor trust, leading to lower borrowing costs. However, governance mechanisms operate differently across institutional environments. Existing studies primarily focus on firms in developed markets with established governance norms, leaving a gap in understanding how variations in governance quality influence debt costs in emerging markets like Kenya, where corporate governance standards are still consolidating (Johnson & Li, 2021; Nguyen & Tran, 2023).

Capital structure and leverage ratios have also been identified as major determinants of financial performance and debt costs. Baker and Wurgler (2021) emphasized that an optimal debt level enhances firm value by exploiting tax shields and financing profitable projects, consistent with the trade-off and pecking order theories. Miller and Modigliani (2023) further demonstrated that moderate leverage can support growth by reducing the weighted average cost of capital. However, excessive reliance on debt increases financial distress risk and undermines profitability, as supported by Kumar and Singh (2024). Despite these insights, existing literature offers limited empirical evidence on the optimal leverage threshold across different industries and macroeconomic cycles, creating a research gap in identifying context-specific debt levels that maximize firm performance (Baker & Wurgler, 2021; Miller & Modigliani, 2023; Kumar & Singh, 2024).

The role of agency costs in determining the cost of debt has also attracted scholarly attention. Jensen and Meckling (2022) argued that agency conflicts where managers prioritize personal objectives over shareholder interests can lead to inefficient financing decisions and higher borrowing costs. Lenders often respond to such risks by imposing stricter lending conditions or higher interest premiums. While the link between agency costs and the cost of debt is well-documented, existing studies lack longitudinal analyses that capture how governance reforms and incentive mechanisms evolve to mitigate these agency problems over time (Jensen & Meckling, 2022). Therefore, a dynamic methodology should be used in future research to examine how ownership structure, business size, and macroeconomic factors modify the relationship between loan costs and financial performance across industries.

In summary, empirical studies underscore that the cost of debt significantly affects financial performance through its influence on profitability, capital structure, and firm sustainability. However, gaps remain regarding the contextual determinants of debt costs, particularly in developing economies where governance practices, financial regulations, and market maturity differ from those in developed nations. By examining the impact of debt costs on Kenyan commercial banks' financial performance with a particular emphasis on NCBA Bank, this study aims to close these gaps and provide context-driven insights into the effectiveness of debt financing.

2.4 Conceptual Framework

The structure, focus, and guiding principles of a study are outlined in this framework, which acts as a fundamental research instrument. It highlights the importance of the subject being studied by synthesizing prior research and existing theories to frame on-going studies (EBSCO, 2024). A conceptual framework can be visual, often represented through graphs or charts, or narrative, incorporating detailed descriptions and organized points to enhance

clarity. A well-developed conceptual framework helps researchers establish relationships between variables, define research scope, and guide data analysis.

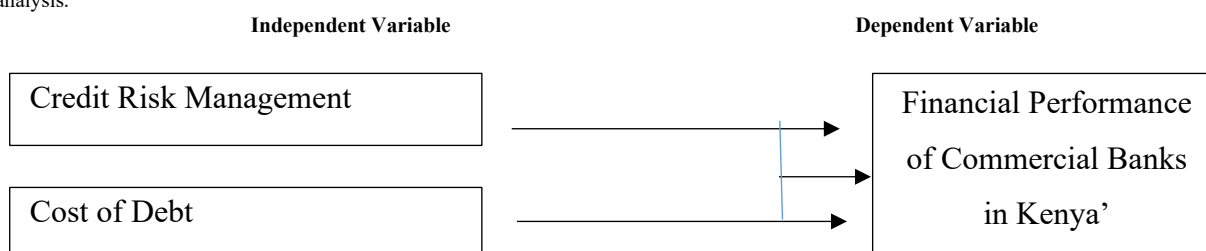


Figure 1: Conceptual Framework

2.5 Operationalization of variables

This involves identifying key variables, determining appropriate indicators, and selecting measurement scales that accurately capture the intended phenomena. This process also facilitates replication and comparison of findings across different studies, strengthening the credibility of the research. Effective operationalization ensures clarity in research methodology, allowing for precise interpretation of relationships between independent, dependent, and moderating variables.

Table 1: Operationalization of variables

Research Object	Variable Type	Indicators	Measurement Scale	Tools of Analysis
To assess how commercial banks' financial performance is affected by credit risk management	Independent	Non-performing loan ratio, loan repayment rate, loan default rate, credit risk exposure, loan loss provision ratio	Ratio Scale	Descriptive statistics, Correlation analysis, Multiple regression
Research Object	Variable Type	Indicators	Measurement Scale	Tools of Analysis
Impact of debt costs on commercial banks' financial performance	Independent	Weighted average cost of capital interest coverage ratio, average borrowing rate,	Ration scale	Descriptive Statistics and Regression analysis

3.0 RESEARCH DESIGN AND METHODOLOGY

3.1 Research design, Target population, Sampling and Sample size

A descriptive research design applied focused on providing a clear and structured understanding of the target population or phenomenon. This approach utilized various methods to investigate one or more variables in depth. While it did not establish causal relationships, the descriptive research design highlighted possible associations or trends among variables, providing a valuable foundation for future research to explore these patterns more thoroughly (Turner & Malik, 2024).

The target population represented the entire group of individuals about whom the researcher aimed to draw conclusions based on the study's outcomes. It served as the broader context from which insights were generalized. According to Bennett and Osoro (2024), the accessible population is the specific, reachable segment of this larger group that the researcher could practically involve in the study. In this research, the focus was on all 234 employees of NCBA.

Table 3 Target Population

Category	Frequency	Percentage
Finance Department	70	29.9
Asset Finance Department	55	23.6
Trade Finance Department	60	25.6
Investment Banking Department	49	20.9
Total	234	100.0

Source; NCBA (2025)

The research uses a well-known formula introduced by statistician Taro Yamane in determining sample size. Although originally developed in 1967, Yamane's formula remains relevant today for determining efficient and representative sample sizes, especially when researchers need to balance accuracy with resource constraints.

The formula is as follows;

Yamane formula is stated as $n = N / (1 + N(e)^2)$

Where: n = Sample Size, N = Population Size, e = Level of Precision

The level of precision is taken as 0.1.

$$n = \frac{234}{1 + 234(0.05)^2}$$

Sample Size = 148

Table 3: Sample Size

Department	Sample Size	Percentage
Finance Department	45	30.4
Asset Finance Department	35	23.6
Trade Finance Department	38	25.7
Investment Banking Department	30	20.3
Total	148	100

The questionnaire comprised of participants' demographic data the study's four main variables interest rate, capital structure, cost of debt, and credit risk management. Before the main data collection process began, the research instrument underwent a pilot test to ensure its effectiveness and reliability. According to Nyambura and Kibet (2024), piloting is an essential step in research in which the questionnaire is tested on a smaller group that closely reflects the characteristics of the actual target population. This process helped evaluate whether the questions were clear, relevant, and capable of capturing the intended data. To ensure the instrument was dependable, the pilot test involved fifteen staff members from NCBA Bank. This number represented approximately 10% of the anticipated total sample size, in line with the recommendations of Muthoni and Karani (2025), who emphasize the importance of using a representative fraction of the sample to identify potential flaws in the design and structure of research tools. The final data analysis did not include the pilot group's results. Rather, by pointing out ambiguities, repetitions, or items that did not adequately support the goals of the study, the information acquired during this phase assisted in improving the questionnaire. Furthermore, the pilot study gave the researcher a chance to become acquainted with the procedure for gathering data, make any necessary modifications, and verify that the research tools accurately measured the variables being studied.

3.2 Validity and Reliability of the Instrument

This refers to how accurately the conclusions drawn from data reflect the subject of the study. As highlighted by Kamau and Wambui (2024), validity ensures that the results of the research truly represent the concepts being investigated. Authenticity, as described by Kiplagat and Mutua (2025), is similarly concerned with the accuracy of data in representing the topic at hand. Construct validity was evaluated in this study to see if the research tool actually assesses the theoretical idea it is intended to evaluate. This process shall involve comparing the new instrument against previously validated tools that measure the same variables.

The supervisor and other research professionals evaluated both the face validity and content validity of the questionnaire. The review process included an examination of the content, sequence, format, organization, and practical applicability of the questions and instructions. Additionally, feedback from the pilot respondents was considered, and necessary adjustments were made to the questionnaire before it was distributed to the full participant group at NCBA Bank, Headquarters, Nairobi.

The reliability of the data collection instruments was assessed for this study using an internal consistency technique. A Cronbach's alpha value greater than 0.7 suggested that the instrument was adequately dependable, as suggested by Njoroge and Mwangi (2025)

Using the pilot study's early data and a 95% confidence interval, the researcher computed the Cronbach's Alpha Coefficient. Version 26 of SPSS was utilized to calculate the Cronbach's alpha coefficient after the data from the pilot phase was input into a statistical software program. A Cronbach's alpha score of more than 0.7 indicated that the questionnaire was deemed reliable for use in the primary study without the need for any changes.

3.3 Data Collection Procedure

The data collection was conducted in person at NCBA Bank, with direct interaction between the researcher and the participants. The researcher, assisted by a research assistant, distributed the surveys to the participants. Respondents were given a four-day period to complete the questionnaires, after which they were collected for analysis.

3.4 Data Analysis and Presentation

Data analysis referred to the process of systematically organizing and structuring the collected data to draw meaningful conclusions that were easy to interpret and communicate (Johnson & Smith, 2024). Since this study was descriptive in nature, frequency distributions and percentage calculations were used to summarize the data, with the aid of SPSS software (version 28). Correlation analysis was used to determine the direction and strength of the relationships between the study's variables. To investigate the connections between variables, a correlation matrix was made. A perfect positive or negative association between the variables was represented by a correlation coefficient of ± 1.0 , while no relationship was indicated by a value of zero. Interpretation was based on values ranging from 0 (no relationship) to 1.0 (perfect relationship). To investigate the connections between the variables, regression analysis was also performed.

3.5 Ethical Consideration

One essential element of ethical research was informed consent. Before they started taking part, participants were fully informed about the nature and goal of the study. *In this study, participation was completely optional. Participants were made aware that they were under no obligation to participate and that their choice would not affect their personal or professional circumstances. Strict confidentiality was maintained throughout the study. All information gathered from participants was securely stored, ensuring the protection of sensitive and private data. Participants' names remained anonymous, and neither the final analysis nor the report contained any identifying information.*

4.0 RESEARCH FINDINGS AND DISCUSSION

4.1 Presentation of Research Findings

The results and comments of the output data from SPSS version 28 were given. The results came from the validity and reliability evaluation of the data that was conducted during the pilot research. Additionally, the research variable and its impact on the independent variable were discussed in the section.

4.1.1 Reliability and Validity test Result

Table 1: Reliability and Validity Result

Indicator	Cronbach's Alpha	No. of Item Tested
Credit Risk Management	0.623	5
Cost of Debt	0.706	5
Financial Performance	0.709	5

The reliability of the research instrument was assessed using Cronbach's Alpha, a statistical measure used to evaluate the internal consistency of questionnaire items. This analysis was essential in determining whether the items within each construct reliably measured the intended variables. The results showed that all constructs met the minimum threshold of reliability, with Cronbach's Alpha values ranging from 0.623 to 0.709. According to conventional standards, an alpha value of 0.7 and above is considered acceptable, although slightly lower values may still be deemed reliable in exploratory studies.

The construct for Credit Risk Management recorded a Cronbach's Alpha of 0.623, which, though marginally below the standard threshold, indicates a moderate level of internal consistency. This suggests that while the items measuring this variable are somewhat consistent, there is room for refinement

in future studies to improve clarity and alignment. Cost of Debt attained a score of 0.706, which meets the recommended reliability level, indicating that the items within this construct were interpreted consistently by respondents and are therefore reliable for use in further analysis.

Table 2: Analysis of Rate of Response

Category	Frequency	Percentage (%)
Sample Size	148	100.0
Questionnaires Returned	140	94.6
Properly Filled Questionnaires	136	91.9

Source; Researcher (2025)

4.1.8 Descriptive analysis of Credit Risk Management

Table 3: Descriptive analysis of Credit Risk Management

Statements	Mean	Std. Deviation
The percentage of non-performing loans is a significant factor impacting the bank's financial performance.	4.02	1.352
The bank's financial performance is positively impacted by its loan payback rate.	4.36	1.059
The bank's capacity to turn a profit is impacted by the loan default rate.	4.21	1.123
The bank's financial results are significantly influenced by its exposure to credit risk.	4.34	1.097
Loan loss provision ratio is a crucial factor in managing the financial health of the bank.	4.10	1.284

The descriptive statistics on credit risk management at NCBA Bank provide crucial insight into how this factor influences financial performance. Based on the analysis of responses from 136 participants, the results show that credit risk management was generally rated positively across five key indicators, each with relatively high mean scores.

The statement “The bank’s financial performance is positively impacted by its loan payback rate” had the highest mean score of 4.36 (SD = 1.059), indicating strong agreement among respondents. This suggests that efficient loan recovery processes are viewed as a vital contributor to profitability and cash flow stability. This finding aligns with Poot (2020), who emphasized that institutions with structured credit collection frameworks often report better financial outcomes due to minimized revenue leakage.

The item “The bank’s financial results are significantly influenced by its exposure to credit risk” also received a high mean of 4.34 (SD = 1.097), showing broad consensus that managing credit risk exposure is critical to sustaining financial performance. Similarly, the loan default rate was noted to impact profitability, with a mean score of 4.21 (SD = 1.123), highlighting the negative implications of defaulted loans on earnings and capital adequacy.

Another critical aspect, the non-performing loans ratio, yielded a mean of 4.02 (SD = 1.352). Although slightly lower than the other indicators, it still reflects moderate agreement that high NPL levels threaten the financial health of the bank. This view is supported by Owusu-Antwi and Antwi (2020), who observed that rising NPLs erode investor confidence, reduce credit availability, and compromise liquidity factors that weaken financial resilience.

Finally, the loan loss provision ratio had a mean of 4.10 (SD = 1.284), reinforcing the perception that proactive provisioning for potential loan losses is a key strategy in safeguarding the bank’s balance sheet and maintaining regulatory compliance. These findings mirror the principles outlined by the Basel Committee on Banking Supervision (2025), which emphasizes provisioning and early risk recognition as central to sound credit risk practices.

The descriptive results are well supported by existing literature. For instance, Noja et al. (2021) argue that strong governance structures, including effective risk oversight boost both disclosure and financial outcomes. Their study of European financial service firms highlighted the importance of organizational practices that support robust credit risk frameworks.

Moreover, empirical findings by Njanike (2020) in the Zimbabwean banking context also revealed that effective credit risk control mechanisms such as monitoring systems, early warning tools, and compliance with loan policies, significantly improved the financial performance of commercial banks. These strategies reduce the incidence of bad debts and enhance operational efficiency

Descriptive Analysis of Cost of Debt

Table 4: Descriptive Analysis of Cost of Debt

Statements	Mean	Std. Deviation
One important measure of the bank's financial health is the interest expenditure to total debt ratio.	4.11	1.146
The average borrowing rate affects the overall profitability of the bank.	4.53	1.011
A higher debt-to-equity ratio has a detrimental effect on the bank's financial performance.	4.51	0.919
The bank's profitability and decision-making process are impacted by the Weighted Average Cost of Capital.	4.36	1.140
An essential indicator of the bank's capacity to meet its debt servicing commitments is the interest coverage ratio.	4.51	0.927

The descriptive statistics for cost of debt in this study offer a clear understanding of how debt servicing influences the financial performance of NCBA Bank. The analysis focused on five indicators, all of which received high average scores, indicating a strong consensus among respondents on the significance of managing the cost of debt.

The item “The average borrowing rate affects the overall profitability of the bank” had the highest mean score of 4.53 (SD = 1.011). This suggests that most respondents agree that borrowing costs directly affect profitability, as interest payments reduce net income. Closely related is the item “A higher debt-to-equity ratio has a detrimental effect on the bank’s financial performance,” which scored a mean of 4.51 (SD = 0.919). This response points to concerns about over-reliance on debt financing, which can burden the institution with unsustainable interest obligations, especially during economic downturns.

Additionally, the interest coverage ratio, which gauges the bank's capacity to pay interest, received a solid score of 4.51 (SD = 0.927), indicating that respondents saw this as a crucial sign of sound financial standing. A mean of 4.36 (SD = 1.140) was also obtained for the Weighted Average Cost of Capital, highlighting the need of maintaining a balance between debt and equity in order to maximize financing costs and profitability. Finally, the “Interest expenditure to total debt ratio” question had a score of 4.11 (SD = 1.146), indicating moderate to high agreement that this metric is essential for assessing how cost-effective the bank's borrowing practices are.

These findings align closely with earlier empirical studies. Murikwa (2017) observed that firms with high borrowing costs often experience weakened financial performance due to reduced liquidity and profitability. Similarly, Musiega et al. (2020) noted that when the cost of debt is efficiently managed, particularly through favourable interest terms and solid credit ratings, it results in increased returns on equity and improved overall financial performance. This is because reduced interest obligations free up resources for reinvestment, growth, and shareholder value creation.

Moreover, Chepkorir and Moronge (2020) highlighted that a high cost of debt exposes firms to financial distress and erodes investor confidence, especially in volatile markets. Their findings suggest that controlling debt expenses through strategic borrowing and financial planning enhances both short-term performance and long-term sustainability. The current study’s findings reflect these insights, confirming that cost of debt is a critical determinant of bank profitability and financial health.

The descriptive analysis clearly indicates that employees at NCBA Bank recognize the central role of debt costs in shaping financial outcomes. Each of the five key indicators scored well above average, confirming that cost of debt is perceived as a strategic factor that must be carefully monitored and managed. These findings are in line with contemporary literature, reinforcing the idea that optimizing borrowing strategies and maintaining low-cost capital structures are vital to sustaining financial performance in the banking sector.

4.1.13 Linear Regression Analysis

Table 5: Model Analysis

The study's regression model research sheds crucial light on the relationship between NCBA Bank's financial performance and financial leverage factors, including interest rates, capital structure, cost of debt, and credit risk management. According to the model's R-value of 0.384 and R-squared (R^2) value of 0.148, the chosen independent variables account for around 14.8% of the variation in financial performance. Though additional variables not included in the model may potentially be important, the limited explanatory power indicates that these parameters have a quantifiable influence on financial performance. The model's somewhat diminished but still valid explanatory strength is confirmed by the modified R^2 of 0.122, which takes the number of predictors into consideration. The average difference between the actual and anticipated financial performance ratings was shown by the standard error of the estimate, which were 4.869.

4.1.14 ANOVA Analysis

Table 6: ANOVAa Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	538.141	4	134.535	5.675	.000b
	Residual	3105.676	131	23.707		
	Total	3643.816	135			

a Dependent Variable: Financial Performance

b Predictors: (Constant), Interest Rate Value, Credit Risk Management, Cost of Debt, Capital Structure

The model’s overall significance was tested using ANOVA, which produced an F-statistic of 5.675 and a p-value of 0.000. This result indicates that the regression model is statistically significant and that the combination of credit risk management, cost of debt, capital structure, and interest rate meaningfully influences the bank’s financial performance. The regression coefficients further revealed the direction and strength of each independent variable’s relationship with financial performance.

4.1.15 Analysis of Coefficient Determinant of the Independent Variable

The model demonstrates that credit risk management, cost of debt, and interest rate significantly influence financial performance at NCBA Bank. While capital structure was not a statistically significant factor, the other variables validate the importance of sound financial leverage practices in achieving and sustaining profitability. These findings are supported by the Basel Committee on Banking Supervision (2025) and the Kenya Bankers Association (2023), both of which advocate for strategic financial management in navigating the evolving challenges of the banking sector.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusion

In conclusion, the study validates the relevance of financial leverage variables particularly credit risk management, cost of debt, and interest rate as determinants of financial performance in the banking sector. The theoretical frameworks applied were instrumental in interpreting the dynamics observed, while the research methodology ensured accurate, reliable, and objective measurement of relationships. While capital structure was not a statistically significant predictor in this case, it remains conceptually important and may require further investigation across a broader sample or using a longitudinal design. The findings offer critical insights for NCBA Bank's management and the broader banking industry on strategic management of financial leverage to enhance institutional performance.

Recommendation

The NCBA Bank should prioritize continuous improvement of its credit risk assessment procedures. This includes enhancing due diligence during loan issuance, tightening credit scoring models, and investing in data analytics to detect early signs of default. Additionally, the bank should implement automated monitoring systems to ensure real-time tracking of loan repayment behaviour and enforce timely loan recovery measures. Strengthening staff training in credit appraisal and recovery processes can further mitigate default risk and maintain asset quality.

The study established that the cost of debt negatively impacts financial performance. To address this, the bank should engage in prudent borrowing by negotiating lower interest rates with lenders and maintaining a favourable credit rating. It is also advisable to diversify funding sources by leveraging more cost-effective financing options, such as long-term concessional loans or issuing corporate bonds at competitive rates. Effective debt planning and forecasting can also help align borrowing with periods of favourable market conditions, minimizing exposure to high-interest environments.

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