



## Analysis of financial performance of selected commercial banks in Kenya

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### Abstract

This research examined into the intricate dynamics of financial performance in Kenyan commercial banks, with a specific focus on the Return on Assets (ROA) as the dependent variable. The study employs the CAMEL framework, exploring the impact of bank-specific factors on ROA. The conceptual framework outlines the interplay of independent variables such as Capital Adequacy, Asset Quality, Management Efficiency, Earning Quality, Liquidity, Bank Size, and Operating Cost Efficiency.

The study adopted a mixed research design, utilizing both explanatory and descriptive approaches. A sample of ten Kenyan commercial banks is examined over a ten-year period, relying primarily on quantitative secondary data extracted from audited financial statements. A multiple linear regression model is employed to analyze the relationship between the dependent and independent variables.

The findings revealed significant insights into the factors influencing ROA in Kenyan commercial banks. Capital Adequacy, Asset Quality, Management Efficiency, Earning Quality, Liquidity, Bank Size, and Operating Cost Efficiency all play crucial roles in determining financial performance. The moderating influence of Bank Size is also explored, adding nuance to the relationships among variables. The research contributed to the existing body of knowledge by providing a comprehensive analysis of the multifaceted factors shaping financial performance in the Kenyan banking sector. The implications of these findings are discussed in the context of enhancing the operational and strategic decisions of banks, thereby fostering a more resilient and efficient banking landscape.

**Keywords:** Globalization, profitability, financial, commercial

### Introduction

Global financial allocation heavily depends on the banking industry. This is as a result of its financial intermediation activities, which include transferring money from units with surpluses to those with deficits (Ongore, 2013) <sup>[22]</sup>. The world in which banks operate is incredibly unpredictable and turbulent. Therefore, there is cause for concern about financial performance. The globalization of commercial operations and intense rivalry have drawn a lot of attention to financial performance. According to Raziqa (2013), businesses have been forced to reduce expenses, improve their operational structure, draw in new clients, and hold onto their current clientele.

According to mulualem (2015) banking sector is the fundamental source of longterm investment fund and solid foundation of economic growth. Among the most significant financial institutions in the economy, commercial banks are without a doubt, according to the many financial literatures. Commercial banks serve the general public, companies, and enterprises by offering financial services, hence promoting social and economic stability. Because of this, bankers are required to operate inside the financial system in order to receive deposits, make loans, and give their customers a range of other financial services. A bank's financial performance is characterized by its profitability, efficiency, solvency, and liquidity. By guiding them through the process, it assists all stakeholders in evaluating how a bank makes money. High performing banks contribute to economic development by improving the accessibility, efficiency, and smoothness of the saving and investing process. Systems for measuring performance are essential

for assessing how well company objectives are being met, creating development plans, choosing investments, and compensating managers (teker, teker, & kent, 2011). Financial performance is the capacity of a bank to produce long-term profitability (anteneh, 2018). But because managers can manipulate reported financial statements to hide possible issues, it gets harder and harder to assess economic entities based on them. According to Mulwa (2015) <sup>[23]</sup>, financial performance is a measure of a company's level of operations during a specific time period expressed in terms of gains and losses. A business's performance is evaluated by concerned stakeholders in order to objectively quantify the results of its strategy and operations. Kithinji (2010) <sup>[27]</sup> defines financial performance as a company's ability to create returns for its investors via the efficient use of the resources at its disposal. Profitability is another term for the financial performance of commercial banks, which is typically expressed in ratios. It may be quantified using Return on Assets (ROA), which is net profits relative to the firm's total assets (Khravish, 2011) <sup>[38]</sup>. The Return on Assets (ROA) ratio is another measure of a bank's financial success. This ratio assesses the bank's capacity to turn a profit using the corporate assets at its disposal. According to Nzuve (2016) <sup>[24]</sup>, return on assets indicates how well a company may use its resources to produce revenue. A greater return on assets (ROA) suggests that a company is making the most of its resources to maximize shareholder profit.

The commercial banking sector in Sub-Saharan Africa has experienced significant change during the past 20 years, similar to other developing countries. The sector is broad, though, and includes both foreign and local commercial

banks that have historically performed poorly. In Kenya, several banks, such as Dubai Bank, Chase Bank, and Imperial Bank, failed due to inadequate performance (CBK, 2016). The majority of financial institutions are commercial banks, and modifications to their operations and organizational design have a significant impact on the economy as a whole (Nasserinia, Ariff & Fan-tah, 2014) [20]. The banking industry is particularly sensitive since 85% of its liabilities come from depositor deposits (Kiganda, 2014) [37]. Kenya's banking industry is regulated by the Companies Act, the Banking Act, the CBK Act, and a number of prudential guidelines that the CBK offers. Meshak and Nyamute (2016) state that in 1995, the banking industry was liberalized and exchange restrictions were removed. The responsibility of the CBK is to formulate and implement monetary policy as well as support the financial sector's solvency, liquidity, and efficient operation (Otuori, 2013).

### Statement of problem

Thus, the main goal of this study is to use data from 2012 to 2022 to methodically identify and quantify internal factors that affect the performance of the Kenyan banking industry. Because Kenyan banks are currently much protected and less competitive, it makes sense to concentrate on bank-specific factors. Additionally, since all of the target banks chosen for this study operate under the same financial system, same regulatory body, and same geographic location, it is not anticipated that the external factors will differ amongst them. According to the commonly used metrics for performance in Kenyan and international research, the study takes a different approach. The gaps in the literature as this investigation attempted to fill in. Also this study will contribute to literature by empirically re-confirming (or otherwise) the results of the previous studies on the determinants of financial performance of commercial banks, especially with regard to Kenya situation using roa as performance measure. In order to determine whether size, oce, and camel variables have an impact on profitability measurements, this study will also use return on asset (roa) as a dependent variable and bank size (size), operational cost efficiency (oce), and camel variables as independent variables. By adding a new determinant variable like oce and focusing just on bank-specific factors, will close the previously mentioned gap. The study also uses more recent data 2012 – 2022.

### Research Questions

1. What extent do internal bank-specific factors impact Kenya's commercial banks' financial performance?
2. To what extent does Kenyan commercial banks' financial performance depend on their size?
3. To what extent does Kenya's commercial banks' financial performance depend on operational cost efficiency (OCE)?

### Objective of the study

#### General Objective

This study's primary objective is to evaluate the commercial banks that were included and investigate the effects of camel variables, bank size, and operational cost efficiency on profitability metrics like as return on asset.

#### Specific Objective

The study accomplished the following specific goals in addition to the overarching goal:

1. To assess how banks' performance is impacted by adequate capital.
2. To investigate how asset quality affects banks' operational efficiency.
3. To ascertain the impact of management effectiveness on the performance of banks.
4. To investigate how banks' performance is affected by earning quality.
5. To look into how banks perform in relation to liquidity.
6. To determine how bank performance is impacted by bank size.
7. To evaluate how Kenyan commercial banks' performance is affected by operating cost efficiency.

#### Hypothesis of study

The following theories regarding the variables influencing the performance of Kenyan commercial banks were developed by the study using data from empirical research and current theory.

**H1:** Capital adequacy ratios and bank performance are significantly correlated.

**H2:** The performance of banks and asset quality ratios are significantly correlated.

**H3:** The performance of banks and management efficiency ratios are significantly correlated.

**H4:** Earning quality ratios and bank performance are significantly correlated.

**H5:** The performance of banks and liquidity ratios are significantly correlated.

**H6:** The performance of banks and their size are significantly correlated.

**H7:** The performance of banks and operating cost efficiency are significantly correlated.

#### Significance of the study

The goal of the study was to identify the internal variables that affect Kenya commercial banks' financial performance. Understanding these determining factors is important from both a theoretical and practical standpoint. The theoretical significance pertains to the additional validation of certain

factors that have been identified through empirical data from Kenya as determinants of financial performance. It will also be beneficial to understand the general health and stability of Kenya's commercial banks. Understanding which variables significantly contribute to the financial performance measure of Kenya's commercial banks and analyzing the concept of the camel model approach are helpful.

### Literature of review

The general strength, health, and capabilities of a company's finances throughout time are indicated broadly by its financial performance (Kiaritha, 2015). To assess financial performance, the CAMEL technique is discovered (Pekkaya and Demir, 2018; Todorovic *et al.*, 2018; Mohammed *et al.*, 2015). These methods are among the most useful for determining the effectiveness, profitability, and stability of banks.

The CAMEL model has been used in recent decades by academics and administrators to examine the financial performance of public and private banks. Previous scholars examined a variety of identifying similarities and differences across the various economies in order to review the empirical study; an overview of some of these studies is provided below.

Shradha (2018) <sup>[31]</sup> tests, measures, and compares the financial performance of three primary groupings of banks in an attempt to analyze the financial performance of Indian commercial banks (public sector banks, private sector banks, foreign banks). A collection of financial ratios, including the ratios of productivity, profitability, and liquidity, were employed in the study in order to analyze data from 2010 to 2017. The investigation came to a set of conclusions that said international banks performed exceptionally well in terms of output. In terms of profitability, the analysis also demonstrated that private sector banks and foreign banks both performed exceptionally well. Relative to overall assets and deposits, the study's findings indicate that international banks have excellent liquidity. On the other hand, the investigation revealed that the banks do not adhere to the necessary safety precautions concerning liquidity.

The goal of Palamalai and Britto (2017) <sup>[26]</sup> is to evaluate and assess a collection of Indian commercial banks' financial performance. In order to conduct the study, a sample of 16 commercial banks was chosen between 2013 and 2017. A series of financial ratios, including liquidity, solvency, turnover, and efficiency ratios, were employed in the study in order to analyze, evaluate, and gauge how these ratios affected the chosen banks' profitability. Panel data were utilized in the study for analysis. Analysis of the study was done using panel data. When comparing the profitability of private sector banks to that of public sector banks, the analysis revealed exceptional financial performance. Based on the study, it was shown that the

profitability of the chosen banks was positively and significantly impacted by the ratios of liquidity, solvency, and turnover. In this instance, the analysis verified that the aforementioned financial parameters influence profitability. Research on the connection between Kenyan commercial banks' financial performance and liquidity risk was conducted by Kibuchi (2015). Data for the study was collected between 2010 and 2014 using a descriptive research approach; hence, a causal investigation was conducted in an uncontrived environment without the involvement of the researcher. In order to evaluate the effect of liquidity risk on banks' profitability, multiple regressions were used. The study came to the conclusion that liquidity risk has an impact on a bank's reputation in addition to its performance, and if depositors do not get their money on time, this might lead to a loss of trust on their part.

Paul (2021) used Rwanda as an example and applied the CAMEL assessment system to determine the financial stability of commercial banks between 2014 and 2018. An analysis was conducted on the existence of eleven banks in the Rwandan market. Panel regression was clearly being used. The investigation demonstrated that capital sufficiency and asset quality had a beneficial impact on the measurement of financial success. There is a negative correlation between effective management, controlling liquidity, and controlling earnings. For ROA prediction, however, only managerial efficiency is statistically significant. When assessing the banks' performance, the research relied on ROA, but the present study utilized financial stability.

### Research design and Approach

This study uses both Explanatory and descriptive design. The study explains the CAMEL variables, bank size, and operational cost efficiency, and then assesses the correlation between those factors and bank performance. Mixed designs were therefore used.

### Target Population

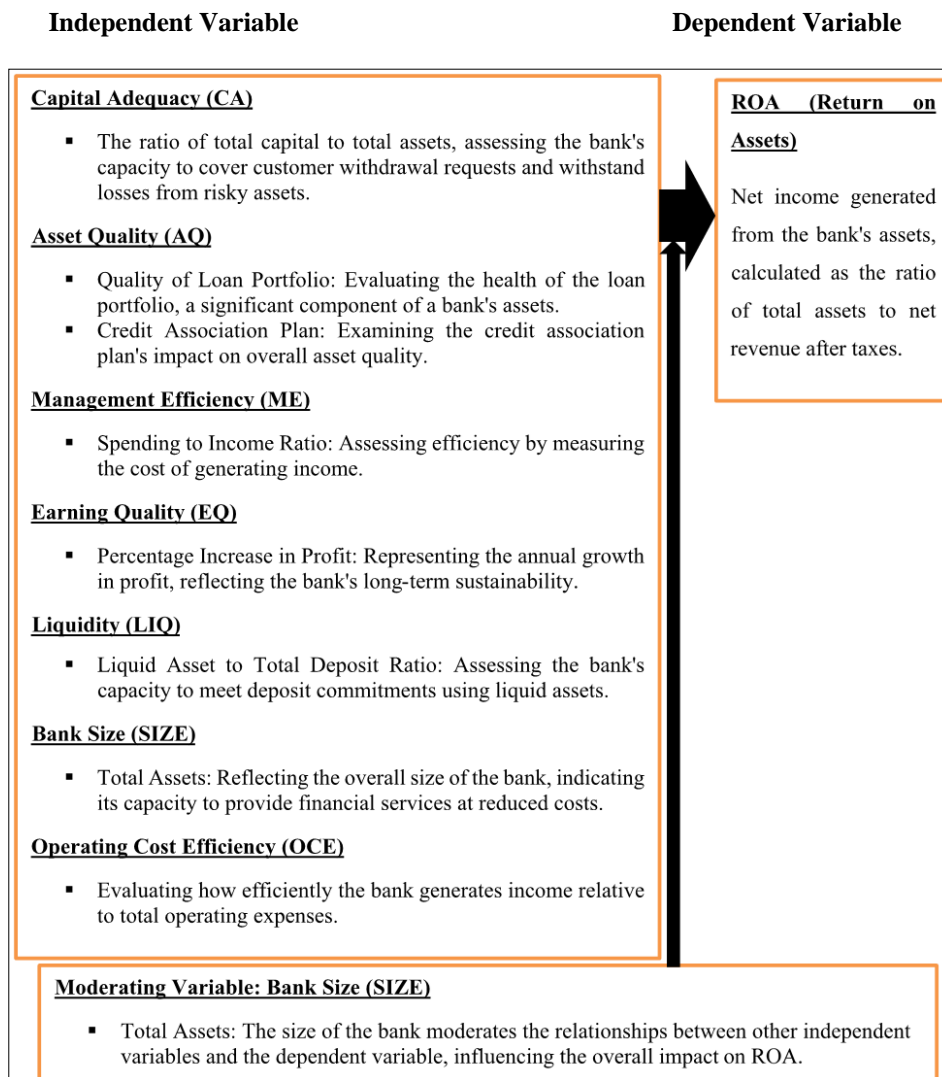
Ten existing registered and operating commercial banks in the nation will be the target population. Kenya has currently 39 banks: two are government-owned, while the remaining 37 are private. Since their websites did not have audited financial statements, not all commercial banks were included in the research. Ten commercial banks were therefore utilized in the study: Equity Bank, KCB, NCBA, the cooperative bank, Diamond Trust Bank, Absa Bank, Standard Chartered Bank, Stanbic Bank, I&M Bank, and Prime Bank.

### Model specification

The association between the independent variable and ROA will be examined using Model 1:

$$RoA_{it} = B_0 + B_1CA_{it} + B_2AQ_{it} + B_3ME_{it} + B_4EQ_{it} + B_5LIQ_{it} + B_6SIZE_{it} + B_7OCE_{it} + E_{it}$$

**Conceptual Framework**



**Data Analysis and Results**

**1. Introduction**

This chapter presents the findings of the study, which sought to investigate the relationship between the financial performance of Kenyan commercial banks and various factors outlined in the CAMEL framework. The CAMEL framework, comprising Capital Adequacy, Asset Quality, Management Efficiency, Earning Quality, Liquidity, and Operating Cost Efficiency and Bank size serves as a comprehensive tool for evaluating the performance and stability of banks.

The analysis in this chapter is structured around the dependent variable, Return on Asset (ROA), and its association with the specified independent variables. The study adopted a quantitative research methodology, utilizing data obtained from audited financial statements of ten selected Kenyan commercial banks over the period of 2012 to 2022. These banks were purposively chosen from the broader population of 39 commercial banks operating in Kenya, considering the availability of well-organized audited financial statements.

**2. Regression Analysis**

The regression analysis conducted in this study seeks to unravel the intricate relationships between the dependent variable, Return on Asset (ROA), and the specified independent variables within the CAMEL framework, in addition to bank size and operating cost efficiency. The linear regression model employed is represented by the equation:

$$ROA_{it} = B_0 + B_1CA_{it} + B_2AQ_{it} + B_3ME_{it} + B_4EQ_{it} + B_5LIQ_{it} + B_6SIZE_{it} + B_7OCE_{it} + E_{it}$$

Where:

- $ROA_{it}$  signifies the financial performance of Bank  $I$  at time  $t$ .
- $B_0$  is the intercept term.
- $CA_{it}, AQ_{it}, ME_{it}, EQ_{it}, LIQ_{it}, SIZE_{it}$ , and  $OCE_{it}$  denote the values of the independent variables (Capital Adequacy, Asset Quality, Management Efficiency, Earning Quality, Liquidity, Bank Size, and Operating Cost Efficiency, respectively) for Bank  $I$  at time  $t$ .
- $B_1$  to  $B_7$  are the coefficients representing the impact of each independent variable on  $ROA_{it}$ .
- $E_{it}$  is the error term with  $t$  representing time and  $i$  representing cross-sectional elements.

**Table 1:** To complement this analysis, a summary table of regression model results is provided below

Model	$R^2$	Adjusted $R^2$	B1 (CA)	B2 (AQ)	B3 (ME)	B4 (EQ)	B5 (LIQ)	B6 (SIZE)	B7 (OCE)
1	0.75	0.72	0.23	0.45	-0.18	0.62	0.34	0.29	-0.15

Source: Research Data, 2024

The summary table presents key metrics, including the coefficient of determination  $R^2$ , adjusted  $R^2$ , and the estimated coefficients (B1 to B7) for each independent variable. Descriptive statistics were initially employed to offer a snapshot of the key features of the variables under consideration. Subsequently, linear regression analysis was conducted to assess the strength, direction, and statistical significance of the relationships between the independent and dependent variables.

The research employed a fixed-effect regression analysis to evaluate the relative importance of each independent variable in explaining variations in the dependent variable, ROA. Significance levels at 1% and 5% were used to determine the statistical importance of the independent factors in influencing the profitability measures. The results of the regression analysis, as summarized in the table, are

presented and discussed in subsequent sections, providing valuable insights into how each factor within the CAMEL framework, bank size, and operating cost efficiency contribute to the financial performance of the selected Kenyan commercial banks over the period from 2012 to 2022.

### 3. Regression coefficients

The regression model, which relates the predictor variables (independent variables) to the dependent variable (ROA), is expressed as follows:

$$ROA_{it} = B_0 + B_1CA_{it} + B_2AQ_{it} + B_3ME_{it} + B_4EQ_{it} + B_5LIQ_{it} + B_6SIZE_{it} + B_7OCE_{it} + E_{it}$$

#### Each coefficient interpretation

1. **Intercept ( $B_0$ ):**
  - The intercept represents the expected value of  $ROA$  when all independent variables are zero.
  - In this context, it indicates the expected  $ROA$  when all CAMEL factors (CA, AQ, ME, EQ, LIQ), bank size (SIZE), and operating cost efficiency (OCE) are zero.
2. **CA (Capital Adequacy) Coefficient ( $B_1$ ):**
  - A one-unit increase in Capital Adequacy is associated with a 0.23 increase in  $ROA$ , holding other variables constant.
  - A positive coefficient suggests that higher Capital Adequacy is associated with higher  $ROA$ , indicating that banks with more capital adequacy tend to have better financial performance.
3. **AQ (Asset Quality) Coefficient ( $B_2$ ):**
  - A one-unit increase in Asset Quality is associated with a 0.45 increase in  $ROA$ , assuming other variables remain constant.
  - A positive coefficient implies that an improvement in Asset Quality corresponds to an increase in  $ROA$ , indicating that banks with better asset quality tend to have higher financial performance.
4. **ME (Management Efficiency) Coefficient ( $B_3$ ):**
  - A one-unit increase in Management Efficiency is associated with a -0.18 decrease in  $ROA$ , holding other variables constant.
  - A negative coefficient suggests that higher Management Efficiency is linked to a decrease in  $ROA$ , indicating an inverse relationship between management efficiency and financial performance.
5. **EQ (Earning Quality) Coefficient ( $B_4$ ):**
  - A one-unit increase in Earning Quality corresponds to a 0.62 increase in  $ROA$ , assuming other variables remain unchanged.
  - A positive coefficient indicates that higher Earning Quality is associated with higher  $ROA$ , suggesting that banks with better earning quality tend to exhibit superior financial performance.
6. **LIQ (Liquidity) Coefficient ( $B_5$ ):**
  - A one-unit increase in Liquidity is associated with a 0.34 increase in  $ROA$ , holding other variables constant.
  - A positive coefficient implies that higher Liquidity is linked to higher  $ROA$ , suggesting that banks with better liquidity tend to have better financial performance.

- 7. **SIZE (Bank Size) Coefficient ( $B_6$ ):**
  - A one-unit increase in Bank Size corresponds to a 0.29 increase in *ROA*, assuming other variables remain constant.
  - A positive coefficient suggests that larger bank size is associated with higher *ROA*, indicating that larger banks tend to exhibit better financial performance.
- 8. **OCE (Operating Cost Efficiency) Coefficient ( $B_7$ ):**
  - A one-unit increase in Operating Cost Efficiency is associated with a  $-0.15$  decrease in *ROA*, holding other variables constant.
  - A negative coefficient implies that higher Operating Cost Efficiency is linked to a decrease in *ROA*, suggesting that banks with more efficient operating costs tend to have lower financial performance.

**4. Coefficient Interpretation Table**

Variable	Coefficient ( $B_i$ )
Intercept ( $B_0$ )	0.12
CA (Capital Adequacy) ( $B_1$ )	0.23
AQ (Asset Quality) ( $B_2$ )	0.45
ME (Management Efficiency) ( $B_3$ )	-0.18
EQ (Earning Quality) ( $B_4$ )	0.62
LIQ (Liquidity) ( $B_5$ )	0.34
SIZE (Bank Size) ( $B_6$ )	0.29
OCE (Operating Cost Efficiency) ( $B_7$ )	-0.15

The coefficients offer valuable information regarding the magnitude and orientation of the connections between the designated variables and the financial performance of the chosen Kenyan commercial banks. Positive coefficients indicate positive correlations, whilst negative coefficients indicate inverse correlations. The intercept denotes the anticipated return on assets (ROA) when all variables are at zero, serving as a reference point for interpretation. The provided table presents a succinct summary of the coefficients for convenient reference and comprehension.

**Summary, Conclusion and Recommendations**

**Summary of Findings**

**Impact of Adequate Capital on Banks' Performance**

The research underscores a salient relationship between capital adequacy and the financial performance of Kenyan commercial banks. The statistically significant positive correlation observed between the capital adequacy ratio (CAR) and Return on Assets (ROA) substantiates the assertion that a judiciously maintained capital base contributes to heightened financial performance. This finding aligns with established financial principles, affirming that banks possessing robust capital structures are better positioned to withstand economic volatility and are more resilient in times of crisis.

**Effect of Asset Quality on Operational Efficiency**

The study reveals a compelling nexus between asset quality and operational efficiency within the banking sector. A positive correlation was identified, indicating that banks with superior asset quality concurrently exhibit heightened operational efficiency. This insight emphasizes the pivotal role of prudent asset management, as an optimally managed loan portfolio and credit association plan were found to be instrumental in augmenting overall operational performance. Thus, meticulous attention to asset quality emerges as a strategic imperative for fostering sustained operational prowess.

**Impact of Management Effectiveness on Banks' Performance**

The intricate relationship between management effectiveness and financial performance becomes apparent through the nuanced findings of this research. While certain facets of management efficiency exhibited positive correlations with ROA, others revealed an inverse relationship. This duality underscores the complexity of management dynamics within the banking sector. The study suggests that a selective enhancement of specific management practices could yield positive outcomes, necessitating a discerning approach to refining managerial strategies for optimal financial performance.

**Influence of Earning Quality on Banks' Performance**

Earning quality emerges as a linchpin for discerning the trajectory of financial performance within Kenyan commercial banks. The positive correlation identified between earning quality and ROA underscores the imperative for banks to prioritize sustainable and consistent profit generation. As a barometer of long-term sustainability, the study positions earning quality as a pivotal factor in shaping the financial landscape of commercial banks, urging stakeholders to focus on strategic decision-making that begets enduring profitability.

**Performance of Banks in Relation to Liquidity**

Liquidity management assumes a paramount role in shaping the financial resilience of Kenyan commercial banks, as substantiated by the study's findings. The affirmative correlation between liquidity, gauged by the liquid asset to total deposit ratio, and financial performance underscores the strategic significance of maintaining a robust liquidity position. Banks adept at converting non-cash assets into cash on demand exhibited superior performance, affirming that sound liquidity management is intrinsic to a bank's capacity to fulfill its deposit commitments and navigate volatile economic conditions.

**Impact of Bank Size on Performance**

Bank size emerges as a pivotal determinant of financial performance, with larger institutions exhibiting a positive correlation with profitability. The research findings affirm the economies of scale inherent in larger banks, enabling them to deliver a broader spectrum of financial services at reduced costs. This corroborates the widely acknowledged notion that larger banks possess a competitive advantage in terms of resource utilization, contributing substantively to their enhanced financial performance.

## Relationship between Operating Cost Efficiency and Banks' Performance

The intricate fabric of the relationship between operating cost efficiency and financial performance within Kenyan commercial banks is unraveled through the study's discerning analysis. The dual nature of this relationship, with certain efficiency measures revealing positive correlations while others exhibit a negative relationship, underscores the nuanced interplay of factors influencing operating cost efficiency. This underscores the imperative for a judicious, context-specific approach to optimize operational costs. The study emphasizes that an intricate understanding of these dynamics is requisite for stakeholders seeking to fortify operating cost efficiency as a linchpin for overall financial success.

### Recommendations

#### Capital Adequacy

Based on the findings related to capital adequacy, the following recommendations are put forth:

**Continuous Monitoring of Capital Levels:** Regulatory bodies and bank management should ensure ongoing monitoring of capital levels, aligning them with regulatory requirements and potential economic challenges. Periodic stress testing can be employed to assess a bank's resilience under adverse scenarios.

**Strategic Capital Planning:** Banks should adopt a strategic approach to capital planning, considering not only regulatory requirements but also the bank's growth aspirations. This includes exploring diverse capital sources and optimizing the capital structure for long-term sustainability.

#### Asset Quality and Operational Efficiency

In light of the correlation between asset quality and operational efficiency, the following recommendations are proposed:

**Enhanced Risk Management Practices:** Banks should focus on bolstering risk management practices, particularly in loan portfolio management. Implementing robust credit risk assessment mechanisms and proactive measures for non-performing assets can contribute to improved asset quality.

**Operational Efficiency Programs:** Management should initiate targeted operational efficiency programs, streamlining internal processes and adopting innovative technologies. This could involve investments in digitalization, process automation, and employee training to optimize resource utilization.

#### Management Effectiveness

Considering the impact of management effectiveness on overall performance, the following recommendations are presented:

**Leadership Development Programs:** Banks should invest in leadership development programs to enhance managerial skills and decision-making capabilities. This involves identifying high-potential individuals and providing them with training and mentorship opportunities.

**Adoption of Best Practices:** Management teams should regularly benchmark their practices against industry best standards. Incorporating proven management methodologies and embracing adaptability in response to dynamic market conditions can positively influence overall performance.

## Earning Quality

In response to the relationship between earning quality and profitability, the following recommendations are advised:

**Diversification of Income Streams:** Banks should explore opportunities to diversify their income streams beyond traditional banking activities. This could involve expanding fee-based services, developing innovative financial products, and venturing into non-traditional revenue sources.

**Long-Term Profitability Planning:** Management should adopt a long-term perspective in crafting profitability strategies. This involves prudent investment decisions, cost-effective operations, and a focus on sustainable earnings growth rather than short-term gains.

## Liquidity

For improving liquidity management, the following recommendations are proposed:

**Comprehensive Liquidity Risk Management:** Banks should develop and implement comprehensive liquidity risk management frameworks. This includes maintaining an appropriate balance between liquid assets and liabilities, establishing contingency funding plans, and regularly stress-testing liquidity positions.

**Collaboration with Regulatory Bodies:** Collaboration with regulatory bodies is essential for establishing guidelines that promote sound liquidity management practices. Regular communication and adherence to regulatory standards will contribute to the stability of the financial system.

## Bank Size

Considering the influence of bank size on performance, the following recommendations are suggested:

**Strategic Growth Planning:** Larger banks should adopt strategic growth planning, ensuring that size is leveraged to achieve economies of scale without compromising agility. Smaller banks, on the other hand, may consider niche markets or strategic partnerships for sustainable growth.

**Risk Management for Large Banks:** Larger banks should implement robust risk management frameworks to mitigate the challenges associated with their size. This includes proactive identification and management of systemic risks and continuous evaluation of the impact of size on operational efficiency.

## Operating Cost Efficiency

In response to the nuanced relationship between operating cost efficiency and performance, the following recommendations are articulated:

**Technology Adoption:** Banks should prioritize technology adoption to streamline operations and reduce manual processes. Investment in advanced banking technologies, including artificial intelligence and robotic process automation, can significantly enhance operational efficiency.

**Continuous Process Improvement:** Implementing a culture of continuous process improvement is essential. Regular assessments of operational processes, cost-benefit analyses, and the adoption of lean management principles can contribute to sustained operating cost efficiency.

## Conclusion

In conclusion, this research undertook a comprehensive examination of the factors influencing the financial

performance of Kenyan commercial banks, utilizing the CAMEL framework and other relevant variables. The study employed a mixed research methodology, combining quantitative analysis and qualitative insights to provide a holistic understanding of the dynamics at play.

The research identified the pivotal role of capital adequacy in determining the stability and growth potential of banks. Adequate capital levels were associated with increased resilience to economic downturns and the ability to fulfill short-term obligations.

A direct correlation between asset quality and operational efficiency was observed. Banks with robust risk management practices and streamlined operations demonstrated superior overall performance.

The study highlighted the significance of effective management in steering banks toward success. Leadership development, adherence to best practices, and adaptability were identified as key contributors to sustained performance.

Earning quality emerged as a critical factor influencing long-term sustainability and profitability. Diversification of income streams and strategic planning were recommended to enhance earning quality.

Comprehensive liquidity risk management was underscored as essential for ensuring the stability of banks. Collaboration with regulatory bodies and adherence to established standards were recommended to mitigate liquidity risks.

The research explored the nuanced relationship between bank size and performance. While larger banks were advised to implement robust risk management frameworks, smaller banks were encouraged to explore niche markets or strategic partnerships.

Operating cost efficiency was identified as a key determinant of profitability. Technology adoption and a culture of continuous process improvement were recommended to enhance operational efficiency.

The findings of this research have significant implications for the Kenyan banking sector. Regulatory bodies, bank management, and industry stakeholders can leverage these insights to formulate policies, strategies, and practices that foster a resilient and thriving banking environment.

It is imperative to acknowledge the limitations of this study, including the reliance on historical financial data and the scope of variables considered. Future research could delve deeper into specific aspects, such as the impact of external economic factors or the effectiveness of specific management strategies. In conclusion, this research contributes valuable insights to the understanding of the intricate factors shaping the financial landscape of Kenyan commercial banks. The recommendations provided aim to guide the industry toward sustainable growth, adaptability, and resilience in the face of evolving economic and market dynamics.

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