

STRENGTHENING FINANCIAL STABILITY THROUGH INTERNAL CONTROLS: EVIDENCE FROM COMMERCIAL BANKS LISTED AT THE NAIROBI SECURITIES EXCHANGE

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ABSTRACT

Purpose of Study: This study therefore sought to examine the effect of internal controls on the financial stability of commercial banks listed at the Nairobi Securities Exchange. Financial stability was assessed using capital adequacy and liquidity.

Problem Statement: Commercial banks listed at the Nairobi Securities Exchange continue to experience episodes of financial instability despite operating under comprehensive corporate governance regulations and supervisory frameworks. This persistent instability raises concerns about whether conventional governance mechanisms adequately address the ownership structures, strategic relationships, and internal controls that shape the behaviour and resilience of banks in emerging markets.

Methodology: Guided by a pragmatist philosophical stance, the study adopted a mixed-methods approach with an explanatory design as the primary structure, complemented by descriptive elements for contextual understanding. The unit of analysis comprised the eleven commercial banks listed on the Nairobi Securities Exchange. Secondary quantitative data was extracted from annual reports, audited financial statements, and regulatory publications.

Result: The findings revealed that internal controls have a significant positive effect on capital adequacy ($\beta = 0.0273$, $p = 0.004$), indicating that stronger internal controls improve long-term financial stability. However, their effect on liquidity was statistically insignificant ($\beta = 0.0084$, $p = 0.212$) suggesting limited influence on short-term financial positions.

Conclusion: Internal controls primarily support long-term stability rather than immediate liquidity.

Recommendation: Listed commercial banks should support internal control systems as a foundation for long-term financial stability by investing in advanced risk management systems and internal audit technologies that improve the accuracy and timeliness of financial reporting.

Keywords: *Internal controls, Financial Stability, Commercial Banks, Nairobi Securities Exchange, Capital Adequacy*

INTRODUCTION

Global experiences have shown that weaknesses in capital adequacy, liquidity management, and governance oversight can trigger rapid institutional distress and systemic instability. Events such as the 2008 global financial crisis and more recent failures, including Silicon Valley Bank in 2023, illustrate how governance shortcomings and risk-management lapses can undermine the soundness of otherwise sophisticated financial systems (IMF, 2021; FDIC, 2023). These cases demonstrate that financial instability often emerges not only from market shocks but also from structural weaknesses in governance systems, supporting the need for governance-oriented research in banking. Within Sub-Saharan Africa, financial instability also persists despite the adoption of global supervisory reforms. Nigeria, for instance, has witnessed repeated cases of institutional distress, including the 2018 restructuring of Skye Bank into Polaris Bank and the 2024 revocation of Heritage Bank's license due to prolonged capital erosion and governance failures (Central Bank of Nigeria, 2018; 2024). In Ghana, the 2017 to 2019 banking-sector clean-up resulted in the closure of UT Bank, Capital Bank, and uniBank following significant deficiencies in capital positions, governance practices, and risk-management systems (Bank of Ghana, 2019). These regional experiences highlight persistent governance gaps and inconsistent regulatory enforcement, underscoring that regulatory reforms alone do not guarantee institutional stability.

Kenya's banking sector, although comparatively more regulated, continues to experience governance-related disruptions. The collapse of Imperial Bank in 2015 and the closure of Chase Bank in 2016 exposed weaknesses in board oversight, insider lending controls, and internal governance practices. The prolonged capital and asset-quality challenges at the National Bank of Kenya led to its acquisition by KCB Group in 2019 and later divestiture to Access Bank Plc in 2025 (CBK, 2023; Access Bank, 2025). Governance reforms undertaken by Equity Bank between 2020 and 2023, including digitisation, regional consolidation, and supported internal controls, demonstrated how deliberate governance interventions can support institutional resilience (KNBS, 2025). These mixed outcomes suggest that governance structures exert significant influence on institutional performance yet vary in effectiveness across banks.

Internal control systems constitute an important indicator and include audit mechanisms, compliance monitoring tools, and risk reporting frameworks that ensure operational discipline. Strong internal controls remain essential for promoting transparency and reducing irregularities such as insider lending, unauthorized transactions, and inaccurate financial disclosure. Empirical evidence from Kenyan banks shows that institutions with well-developed internal audit functions and risk assessment structures report fewer supervisory breaches and demonstrate stronger responsiveness to regulatory directives (Wanjiru and Karungu, 2022; Mwangi and Otieno, 2023). These controls are also directly linked to improvements in liquidity management and capital stability, which are essential components of financial resilience.

Persistent governance challenges observed among some NSE-listed commercial banks, including weak board oversight, irregular audits, and compliance failures, reinforce the relevance of Internalism governance for improving institutional soundness. Given recent supervisory findings indicating breaches of minimum liquidity ratios and declining capital

buffers in several listed banks, the strength of centralized oversight and internal control systems becomes a critical factor for understanding variations in financial stability outcomes (CBK, 2024; Economic Survey, 2025). By focusing on these two dimensions, the study evaluated how Internalism governance contributes to the stability of commercial banks within Kenya's evolving regulatory and market environment.

Capital adequacy was assessed using the Capital Adequacy Ratio, which is calculated as a percentage of a bank's core capital relative to its risk-weighted assets. This ratio reflects the institution's capacity to absorb unexpected losses and maintain solvency during periods of heightened financial stress. International regulatory frameworks, particularly Basel III, emphasize capital adequacy as a fundamental safeguard intended to prevent institutional collapse and systemic contagion, especially in environments characterized by rising credit risk and economic uncertainty (Basel Committee on Banking Supervision, 2021; World Bank, 2023). Recent trends among NSE-listed banks show weakening capital buffers, with the average Capital Adequacy Ratio declining from 18.3 percent in 2022 to 16.7 percent in 2024, raising concerns about long-term institutional resilience (Economic Survey, 2025).

Liquidity was evaluated using two complementary measures, namely the Liquidity Coverage Ratio and the Liquidity Gap. The Liquidity Coverage Ratio assesses the adequacy of high-quality liquid assets relative to projected net cash outflows over a 30-day stress scenario and serves as a globally recognized Basel III benchmark for short-term liquidity strength. The Liquidity Gap provided an additional assessment by comparing expected cash inflows and outflows across different maturity periods, thereby highlighting structural funding mismatches that may not be captured within the Liquidity Coverage Ratio. These two indicators collectively offer a comprehensive measure of the bank's ability to respond promptly and effectively to liquidity pressures (IMF, 2021; CBK, 2024).

STATEMENT OF THE PROBLEM

Commercial banks listed at the Nairobi Securities Exchange continue to face persistent financial instability despite operating under established governance and regulatory frameworks. Non-performing loans increased from 12.5 percent in 2019 to 14.5 percent in 2020 and reached 16.1 percent by April 2024, pointing to weaknesses in credit risk management and broader governance failures across the sector (Central Bank of Kenya [CBK], 2020; CBK, 2024). Liquidity pressures have also intensified, with at least four listed banks breaching the statutory liquidity ratio of 20 percent in early 2024, although average capital adequacy declined from 18.3 percent in 2022 to 16.7 percent in 2024, signalling reduced shock absorption capacity (Economic Survey, 2025).

Although regulatory interventions such as the 2019 Banking Sector Charter and the implementation of Basel III reforms were intended to support oversight, persistent governance weaknesses continue to be highlighted across official regulatory publications. CBK Bank Supervision Reports have repeatedly cited deficiencies in board effectiveness, related-party lending, concentration risk, and inadequate risk mitigation among several listed banks (CBK, 2020; CBK, 2023). The Banking Sector Annual Reports similarly document recurring challenges in compliance culture, internal audit effectiveness, and adherence to prudential guidelines, even within large institutions that possess sophisticated governance structures (CBK, 2024). These patterns suggest that traditional governance mechanisms centred on board independence, shareholder protection, and audit quality may not sufficiently address the structural complexities shaping modern banking institutions.

Empirical evidence further supports governance shortcomings as recurrent drivers of institutional instability. CBK Bank Supervision Reports continue to identify weak internal

controls, inadequate oversight of credit processes, and delayed escalation of emerging risks as contributing factors to financial distress among listed institutions (CBK, 2023; CBK, 2024). The Economic Survey and Banking Sector Annual Reports also highlight governance-induced credit risk accumulation, operational lapses, and restructuring interventions across banks (Economic Survey, 2025; CBK, 2024). Scholarly findings align with these regulatory observations. Muriuki and Karanja (2021) established that weak internal controls contributed to operational disruptions and financial distress, although Wanjiru and Karungu (2022) linked ineffective board oversight and poor strategic discipline to capital erosion and restructuring pressures. However, existing studies focus primarily on conventional governance mechanisms and rarely examine alternative models that may offer more resilient institutional safeguards.

Alternative governance approaches such as the Keiretsu model, characterized by long-term internal controls, cross-shareholding, and coordinated oversight, have demonstrated potential to improve institutional stability in East Asian markets (Tanaka, 2021; Sato & Nakamura, 2022). Internalism, which emphasizes centralized decision-making, procedural discipline, and formalized internal oversight, has similarly been associated with reduced agency conflict and supported operational control (Ngugi, 2022; Muriuki & Karanja, 2021). Despite their conceptual relevance, the applicability and effectiveness of these governance models in Kenya's banking sector remain largely unexamined. Furthermore, although regulation significantly shapes governance behaviour, the moderating effect of the regulatory framework on the relationship between governance practices and financial stability has not been empirically tested (Kimani & Awuor, 2023). This study addressed these gaps by examining the effect of internal controls on the financial stability of commercial banks listed at the Nairobi Securities Exchange.

RESEARCH OBJECTIVE

To assess the effect of internal controls on financial stability in commercial banks listed at the Nairobi Securities Exchange.

RESEARCH HYPOTHESIS

H₀: Internal controls have no statistically significant effect on the financial stability of commercial banks listed at the Nairobi Securities Exchange.

THEORETICAL REVIEW

This study was anchored on Agency Theory. Agency Theory was formally articulated by Jensen and Meckling (1976) in their seminal work on the separation of ownership and control. The theory argues that when ownership is held by principals and decision-making authority is delegated to agents, conflicts arise because agents may pursue their own interests rather than those of the principals. This divergence is intensified by information asymmetry, since agents often possess more operational knowledge than principals. Jensen and Meckling emphasise that monitoring systems, incentive structures, and contractual safeguards are therefore necessary to align managerial behaviour with ownership interests. Eisenhardt (1989) later consolidated the theory by identifying opportunism, self-interest, and goal incongruence as core behavioural assumptions, all of which justify the need for institutionalised governance controls.

The theory rests on several key assumptions. First, it assumes that agents are rational actors who may maximise their own utility even when doing so undermines organizational performance. Second, it assumes that information asymmetry is inherent and cannot be completely eliminated, which necessitates governance mechanisms designed to reduce moral hazard and improve transparency. Agency Theory predicts that strengthened monitoring,

centralized decision rights, internal audit structures, and strong internal controls reduce agency losses and improve institutional outcomes. In regulated sectors such as banking, these predictions imply that governance frameworks must incorporate rigorous oversight systems, structured reporting lines, and incentive mechanisms that limit opportunistic managerial behaviour (Eisenhardt, 1989).

In this study, Agency Theory served as the anchor theory because it directly informed the Internalism governance model. Internalism emphasises hierarchical coordination, centralized oversight, and formalized internal controls, all of which align with Agency Theory's prescriptions for mitigating principal-agent conflict. These governance features correspond with theoretical predictions that enhanced monitoring reduces the likelihood of financial misreporting, excessive risk-taking, and operational lapses. Although earlier empirical studies such as Muriuki and Karanja (2021) and Wanjiru and Karungu (2022) used agency-based logic to explain improvements in asset quality and operational performance, the present study extends this application to financial stability indicators, specifically capital adequacy and liquidity, which have not been widely analysed in agency-based research within the Kenyan banking context.

A major strength of Agency Theory is that it offers a clear, structured explanation of governance behaviour in environments where principal-agent conflicts are pronounced, such as commercial banks with complex operations, dispersed ownership, and stringent regulatory requirements. It highlights why institutions require systematic internal controls, robust audit functions, and oversight structures to safeguard assets and ensure compliance (Daily, Dalton and Cannella, 2003). However, the theory has been critiqued for its narrow emphasis on monitoring and control mechanisms. Critics argue that it underrepresents relational and behavioural dimensions of governance such as trust, professional ethics, and organizational culture, which also influence managerial behaviour and institutional outcomes (Daily et al., 2003). It has also been criticised for underestimating contextual influences such as regulatory pressures and institutional norms, which shape governance behaviour in dynamic environments.

Despite these critiques, Agency Theory was deemed applicable to the current study because it provided a coherent behavioural and structural explanation for Internalism governance. Its assumptions align with the variable on internal controls by clarifying why formal internal controls are expected to strengthen financial discipline. The theory provided an essential interpretive perspective for examining how NSE-listed commercial banks manage risk and maintain financial stability within a regulated environment.

EMPIRICAL REVIEW

Internal controls are structured systems within financial institutions that ensure the accuracy of financial reporting, compliance with regulations, and effective risk mitigation. Under the Internalism governance model, these controls are conceptualized as central tools for promoting institutional accountability and safeguarding against fraud, credit lapses, and liquidity strain. The effectiveness of internal controls has been extensively studied, with increasing attention to their role in shaping financial stability. Hassan (2021) reported that commercial banks in Sub-Saharan Africa with well-established internal audit functions and comprehensive risk management frameworks consistently exhibited stronger capital adequacy outcomes. These findings highlight the critical role that effective internal audit practices play in improving financial resilience, particularly within tightly regulated banking systems.

Mwangi (2021) investigated the relationship between internal audit practices and financial performance among NSE-listed banks in Kenya. The study found that banks with centralized

internal audit departments and routine risk reviews recorded stronger asset quality and compliance metrics. However, although the study established a connection between internal audits and risk governance, it did not explicitly assess their effect on liquidity or capital adequacy. Zoghalmi and Zouaoui (2022), in a cross-country study across North Africa and the Middle East, reported that banks with high board independence and effective internal control systems consistently maintained higher capital adequacy ratios. Although the study did not explicitly examine governance typologies such as Internalism, its findings reinforce the link between internal control strength and capital resilience.

Ngugi (2022) conducted a descriptive study on the role of internal controls in improving governance compliance among commercial banks in Kenya. The findings indicated that internal controls significantly improved fraud prevention and compliance with CBK disclosure requirements. Although the study supported the governance relevance of internal controls, it did not incorporate financial stability metrics such as the non-performing loan ratio or liquidity ratios, limiting its applicability to macro-prudential outcomes. Kimani and Awuor (2023) carried out a panel regression analysis on internal governance mechanisms among NSE-listed banks. Their findings demonstrated that internal control improvements led to improved return on equity, greater capital discipline, and higher investor confidence following governance failures. These results validate the governance and financial stability linkage.

Kariuki and Njiru (2023) studied the effectiveness of internal controls in both credit portfolio management and liquidity performance. Their analysis revealed that internal monitoring mechanisms such as dual approval systems, real-time reporting, structured audit trails, and centralized treasury oversight contributed to improved provisioning accuracy, stronger capital adequacy, and superior liquidity ratios during periods of monetary tightening. However, the study did not examine the influence of external regulations in supporting these control systems, highlighting a conceptual and contextual gap that the present study addressed. National regulators have also recognized the role of internal controls in promoting financial health. The Central Bank of Kenya (CBK, 2024) identified internal control adequacy as one of the top determinants of bank soundness in its 2023–2024 Financial Sector Stability Report. It emphasized the adoption of real-time compliance dashboards, centralized audit committees, and automated transaction monitoring. Institutions that implemented these reforms were more successful in maintaining capital buffers and meeting liquidity requirements during economic disruptions.

The Competition Authority of Kenya (2025) noted that weak internal controls contributed to related-party lending lapses, asset misclassification, and failure to enforce credit limits in past bank failures. The authority emphasized that strong internal control systems help curb governance misconduct, reduce compliance breaches, and support strategic financial planning. The Economic Survey (2025) corroborated these findings by showing that banks with internal control upgrades between 2020 and 2024 exhibited improved liquidity coverage and better audit compliance scores. These outcomes highlight the stabilizing role of controls not only in preventing operational losses but also in ensuring regulatory alignment.

CONCEPTUAL FRAMEWORK

A conceptual framework offers a visual representation of how various factors relate to one another. In this framework, internal controls is the independent variable, while financial stability is the dependent variable. This can be observed in the conceptual framework in Figure 1.

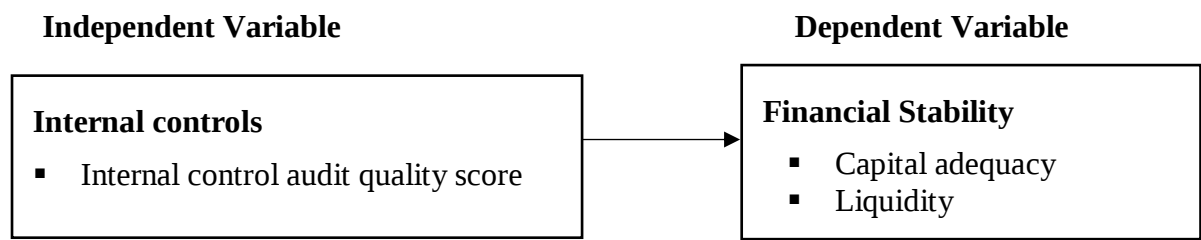


Figure 1: Conceptual Framework

RESEARCH METHODOLOGY

This study was grounded in the pragmatist paradigm, which prioritizes the practical value of inquiry and emphasizes the use of methods that best address the research problem. Pragmatism is premised on the belief that reality is complex, dynamic, and open to multiple interpretations. It therefore encourages methodological pluralism by allowing researchers to draw from both quantitative and qualitative traditions in order to generate findings that are useful, credible, and aligned with the objectives of the study (Creswell and Plano Clark, 2018). In line with the pragmatist worldview, this study adopted a mixed-methods approach that integrates quantitative and qualitative strands. The quantitative component reflects a positivist epistemology by employing objective measurements derived from audited financial statements, capital adequacy ratios, liquidity metrics, and governance disclosures. This strand facilitated statistical testing of the hypothesized relationships between internal controls and financial stability.

This study adopted an explanatory research design, consistent with the pragmatist paradigm and the mixed-methods approach. Explanatory designs are hypothesis-driven and are used to examine causal relationships between variables, making them suitable for studies that seek to identify the effect of independent variables on a dependent outcome (Bell, Bryman, and Harley, 2022). In this context, the explanatory design guided the analysis of how internal controls, influence financial stability indicators such as capital adequacy and liquidity. Although the explanatory design forms the core of this study, elements of descriptive research was incorporated to support the interpretation of results.

The target population comprised the eleven commercial banks listed on the Nairobi Securities Exchange as of 2024. These NSE-listed banks are analytically relevant due to their systemic importance, regulatory compliance obligations, and the availability of governance and financial data in the public domain. This study did not employ a sampling technique in the traditional sense, as it adopted a census approach. A census involves the inclusion of every unit of the population under investigation and was appropriate when the population is small, accessible, and sufficiently homogeneous to allow complete enumeration.

This study employed structured data extraction templates specifically designed to reflect the mixed-methods approach and the constructs under investigation. These templates guided the systematic collection of quantitative data on capital adequacy and liquidity, as well as qualitative data related to internal controls, cross-shareholding, centralized oversight, and internal controls. The study adopted a mixed-methods design that integrates both quantitative and qualitative strands, although relying exclusively on secondary data sources. This approach is justified by the richness of publicly available financial disclosures, regulatory reports, and governance documentation, which collectively provide sufficient depth for both strands of analysis. According to Saunders et al. (2019), the nature of selected data must align with the intended analysis and research design. The quantitative strand focused on numerical indicators

of financial stability, specifically capital adequacy and liquidity. These indicators were extracted from audited financial statements, annual reports, and Central Bank of Kenya (CBK) statistical bulletins for the period 2019 to 2024. By combining structured financial metrics with interpretive analysis of governance disclosures, the study ensures an effective mixed-methods examination. This integrated approach generated comprehensive and contextually grounded insights into the relationship between corporate governance, regulatory frameworks, and financial stability in Kenya’s commercial banking sector.

The study followed a rigorous data collection process, using secondary data from credible sources like audited financial statements, governance disclosures, and regulatory publications. Pretesting ensured the reliability and validity of structured data extraction templates, while content, construct, and external validity were maintained by aligning indicators with relevant theories. Reliability was bolstered by standardized procedures, inter-coder checks, and clear documentation to ensure consistency and replicability. The study operationalizes internal controls through the presence and number of formal partnerships (nominal scale) and financial stability using capital adequacy and liquidity ratios (ratio scale), with data sourced from audited financial statements, governance disclosures, and regulatory publications.

The study used panel regression to assess the impact of internal controls, measured by the presence and number of partnerships, on financial stability, measured by capital adequacy and liquidity ratios. Descriptive statistics summarized governance and financial data across the eleven NSE-listed commercial banks. The panel regression model allowed for controlling inter-bank variations and time-series data, ensuring accurate estimation of internal controls' influence on financial stability. This approach improved the model's explanatory power by addressing omitted variable bias and unobserved heterogeneity. The following models were used:

Model (i): Capital Adequacy

$$CA_{it} = \beta_0 + \beta IC_{it} + \varepsilon_{it} \dots\dots\dots (i)$$

Model (ii): Liquidity

$$LQ_{it} = \beta_0 + \beta IC_{it} + \varepsilon_{it} \dots\dots\dots (ii)$$

Where:

CA_{it} = Capital Adequacy of bank i at time t

LQ_{it} = Liquidity of bank i at time t

IC_{it} = Internal controls of bank i at time t

B₀ = Constant

β = Predictor coefficients

ε = Error term

RESULTS, FINDINGS AND DISCUSSION

Descriptive Analysis

Descriptive statistics were used to summarize the characteristics of the study variables for the eleven commercial banks listed at the Nairobi Securities Exchange over the period 2019 to 2024. This provided an overview of the distribution, trends and variability of internal controls alongside financial stability measured using capital adequacy and liquidity. Measures of central tendency and dispersion were adopted to describe the data, including the mean, maximum, minimum, and standard deviation. The descriptive statistics results are presented in Table 1.

Table 1: Descriptive Statistics

Variable	Obs.	Minimum	Maximum	Mean	Std. Deviation
CAR (%)	66	0.164	0.249	0.194803	0.0169288
LCR (%)	66	0.17	0.719	0.43027	0.142583
Liquidity Gap (%)	66	0.0128	0.0712	0.039452	0.0118382
Internal Controls	66	2	5	4.35	0.794

The descriptive results presented in Table 1 indicate the distribution and variability of financial stability and corporate governance models across the eleven commercial banks listed at the Nairobi Securities Exchange over the period 2019–2024. The findings show that the Capital Adequacy Ratio (CAR) recorded a mean of 0.1948 with a standard deviation of 0.0169, and values ranging between a minimum of 0.164 and maximum of 0.249. This suggests that most banks maintained stable and compliant capital levels, reflecting strong adherence to prudential requirements on core capital relative to risk-weighted assets. The low dispersion indicates consistency across institutions, implying that capital adequacy is well-regulated and uniformly enforced within the banking sector.

Similarly, the liquidity gap recorded a mean of 0.0395 with a standard deviation of 0.0118, indicating moderate variation in short-term liquidity positioning across banks, with most institutions maintaining adequate liquidity buffers to meet short-term obligations. However, the liquidity coverage ratio (LCR) exhibits higher variability compared to other financial stability indicators, with a mean of 0.4303 and a standard deviation of 0.1426, alongside a wide range between 0.17 and 0.719. This suggests differences in liquidity management strategies among banks, where some institutions maintain higher liquidity buffers although others operate closer to regulatory thresholds. Such variation reflects differences in asset-liability management practices, risk tolerance, and exposure to liquidity shocks. These findings indicate that although capital adequacy remains relatively stable across banks, liquidity management practices are more diverse and institution-specific. In addition, internal controls recorded a high mean score of 4.35 with a standard deviation of 0.794, suggesting that most banks have well-established internal audit and control mechanisms, though with slight variations in implementation strength. This indicates strong but not entirely uniform governance practices across institutions.

Trend Analysis

Trend Analysis on Capital Adequacy Ratio (CAR)

The trend analysis for Capital Adequacy Ratio (CAR) examined the yearly changes in banks' capital strength between 2019 and 2024. This was important in determining whether commercial banks listed at the Nairobi Securities Exchange consistently maintained adequate core capital relative to risk-weighted assets over the study period. The analysis provides information on the stability and resilience of banks in meeting regulatory capital requirements under varying economic conditions. The trend line is shown in Figure 2.

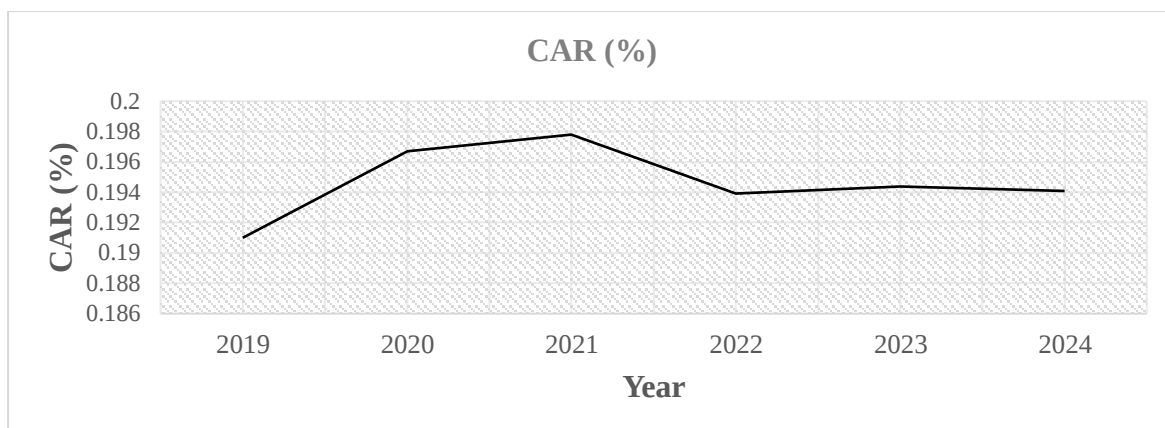


Figure 2: Trend Line on Capital Adequacy Ratio

The trend line in Figure 2 illustrates the annual changes in the average Capital Adequacy Ratio (CAR) of commercial banks listed at the Nairobi Securities Exchange from 2019 to 2024. In 2019, the average CAR stood at 19.1%, indicating that banks maintained capital levels above the minimum regulatory requirement, reflecting a strong capital base at the beginning of the study period. This ratio increased to 19.67% in 2020, representing an improvement in capitalization, which may be attributed to conservative risk management and improved capital retention during a period characterized by increased economic uncertainty.

In 2021, the CAR further increased to 19.78%, marking the highest level observed during the study period. This upward trajectory suggests a deliberate improvement in capital buffers, likely driven by prudential strategies aimed at scaling up solvency and absorbing potential credit risks. The consistent increase from 2019 to 2021 reflects a period of capital consolidation, where banks focused more on financial resilience and regulatory compliance. However, the results show that in 2022 the CAR declined to 19.39%, indicating a marginal contraction in capital adequacy. This reduction is associated with increased lending activities and expansion in risk-weighted assets as banks responded to improving economic conditions. In 2023, the ratio slightly increased to 19.44%, suggesting a modest recovery in capital levels as institutions adjusted their capital structures to align with evolving risk exposures.

The results further show that in 2024 the CAR recorded a slight decline to 19.41%, indicating stabilization within a narrow range. The trend demonstrates a stable capital adequacy position, with CAR consistently maintained above 19% throughout the study period. This stability reflects effective regulatory oversight by the Central Bank of Kenya and adherence to prudential requirements such as Basel III guidelines. The observed pattern indicates that commercial banks maintained adequate capitalization levels despite minor fluctuations, thereby supporting their capacity to absorb financial shocks and maintain operational stability. The trend suggests a well-capitalized banking sector characterized by resilience, regulatory compliance, and prudent financial management practices, which are critical determinants of financial stability.

Trend Analysis on Liquidity Coverage Ratio (LCR)

The trend analysis for Liquidity Coverage Ratio (LCR) examined the yearly changes in banks' short-term liquidity positions between 2019 and 2024. The trend line is shown in Figure 3.

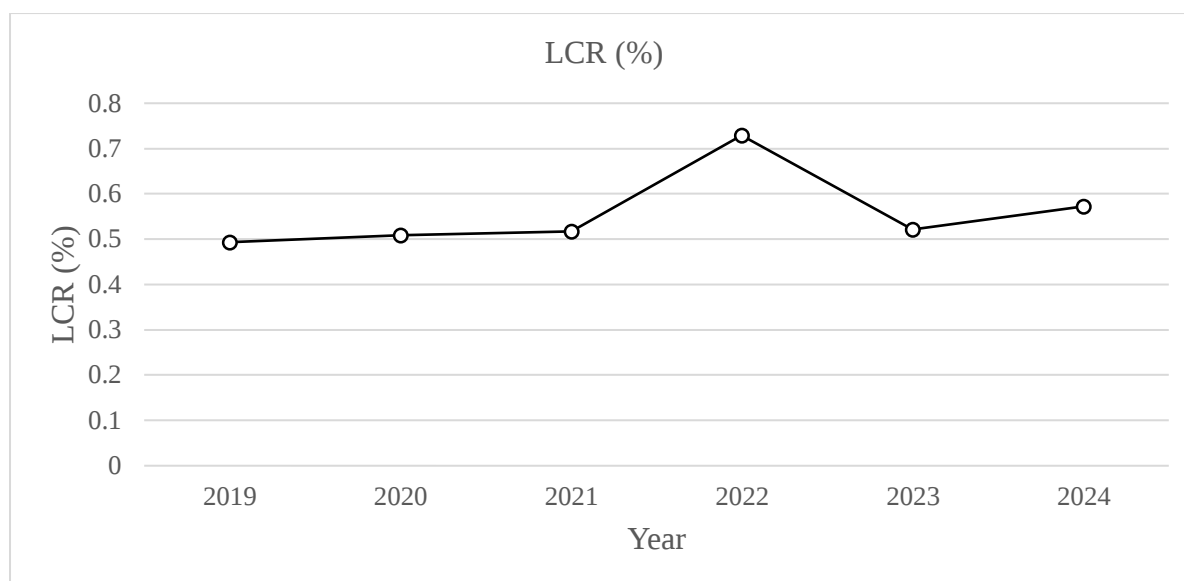


Figure 3: Trend Line for Liquidity Coverage Ratio

The trend line in Figure 3 illustrates the annual changes in the average Liquidity Coverage Ratio (LCR) of commercial banks listed at the Nairobi Securities Exchange from 2019 to 2024. In 2019, the average LCR stood at 49.33%, indicating that banks maintained moderate levels of high-quality liquid assets relative to their short-term net cash outflows. This ratio increased to 50.82% in 2020, indicating an improvement in liquidity positions, possibly driven by cautious liquidity management and regulatory guidance during periods of economic uncertainty. In 2021, the LCR further increased to 51.67%, suggesting continued supporting of liquidity buffers as banks improved their capacity to withstand short-term financial stress. The upward trend from 2019 to 2021 indicates a gradual improvement in liquidity resilience, consistent with prudent asset-liability management practices.

In 2022, the LCR rose significantly to 72.90%, suggesting that banks accumulated higher levels of liquid assets, potentially as a precautionary response to evolving macroeconomic risks or changes in regulatory expectations. Such increase may also reflect reduced lending activity or increased holdings of government securities, which are typically classified as high-quality liquid assets. The results however show that in 2023 the LCR declined to 52.15%, indicating a normalization of liquidity levels as banks possibly reallocated excess liquidity toward income-generating assets. In 2024, the ratio increased again to 57.22%, suggesting a renewed supporting of liquidity buffers and improved short-term solvency positions.

These trend line results on LCR demonstrates a generally upward trend with moderate fluctuations, indicating that listed commercial banks generally maintained adequate liquidity levels throughout the study period. The LCR remained above the thresholds, reflecting the sector's ability to absorb short-term liquidity shocks and meet regulatory requirements enforced by the Central Bank of Kenya. These findings suggest that the banking sector exhibited strong liquidity management practices, supporting overall financial stability and resilience.

Trend Analysis on Liquidity Gap

The trend analysis for liquidity gap analyzed the yearly changes in banks' short-term asset-liability positions between 2019 and 2024. The trend line is shown in Figure 4.

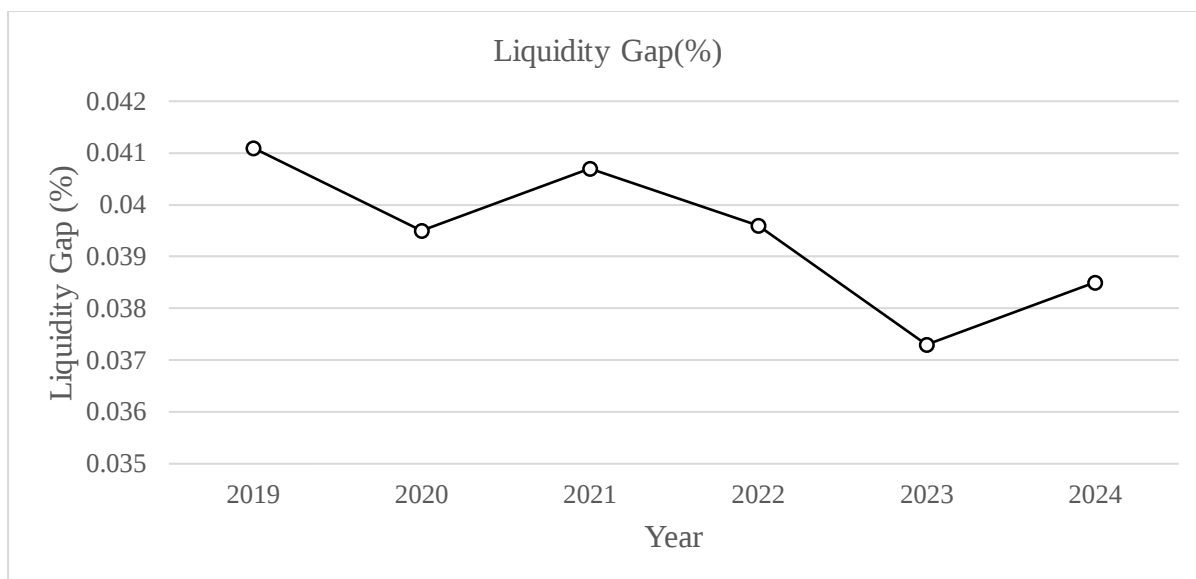


Figure 4: Trend Line on Liquidity Gap

The trend line in Figure 4 presents the progression of the average liquidity gap for commercial banks listed at the Nairobi Securities Exchange over the period 2019 to 2024. The results show that in 2019 the liquidity gap was 4.11%, indicating that banks maintained a moderate surplus of short-term assets relative to short-term liabilities, thereby supporting their ability to meet immediate financial obligations. In 2020, the ratio declined slightly to 3.95%, suggesting a marginal reduction in liquidity buffers, possibly reflecting increased utilization of liquid assets during a period of constrained economic activity. In 2021, the liquidity gap increased to 4.07%, signaling a recovery in short-term liquidity positions as banks adjusted their asset-liability structures to support operational liquidity. The results also show that in 2022, the ratio declined again to 3.96%, indicating a slight tightening of liquidity positions, which may be associated with increased lending or shifts in balance sheet composition.

The downward movement continued into 2023, where the liquidity gap reached 3.73%, representing the lowest level observed during the study period. This decline suggests that banks operated with relatively narrower liquidity margins, potentially reflecting more aggressive asset deployment or improved efficiency in liquidity utilization. In 2024, the liquidity gap increased to 3.85%, indicating a modest recovery in liquidity buffers as banks rebalanced their short-term assets and liabilities. The trend depicts moderate fluctuations within a relatively narrow range, suggesting that banks consistently maintained positive liquidity gaps throughout the study period. This indicates a stable liquidity position with limited exposure to severe mismatch risk. The observed pattern demonstrates that although banks actively adjust their short-term asset-liability structures in response to changing economic and operational conditions, they maintain sufficient liquidity buffers to support financial stability and meet regulatory expectations set by the Central Bank of Kenya.

Correlation Analysis

In this study, correlation analysis was employed to assess how internal controls relate to financial stability indicators, Capital Adequacy Ratio (CAR) and Liquidity, among commercial banks listed at the Nairobi Securities Exchange. Table 2 shows the results.

Table 2: Correlation Matrix

Variables	Internal controls	Capital Adequacy Ratio (CAR)	Liquidity
Internal controls	1.0000	0.4213*	0.3742*

The correlation between internal controls and CAR ($r = 0.4213^*$) was found to be positive and statistically significant, indicating that strong internal audit and control systems are associated with improved capital adequacy. This implies that effective internal controls improve financial discipline, reduce operational risks, and support prudent capital management. These findings are consistent with the Central Bank of Kenya, which emphasizes the role of internal governance systems in supporting risk management and financial stability. The higher coefficient suggests that internal controls play a more direct role in influencing capital adequacy compared to other governance variables.

Internal controls demonstrated a positive and significant association with liquidity ($r = 0.3742^*$), indicating that strong internal audit systems and control mechanisms contribute to effective liquidity management. This suggests that banks with effective internal controls are better able to monitor cash flows, manage risks, and maintain adequate liquidity buffers. These findings are consistent with the Central Bank of Kenya, which highlights the importance of internal governance structures in improving liquidity management and overall financial stability. The finding corroborates Kimani and Awuor, who found that regulatory enforcement improves capital retention and asset quality among Kenyan banks. It also agrees with findings of a study by Njoroge (2023) who reported that regulatory compliance supports liquidity and capital outcomes. However, the current study contributes by demonstrating how regulatory frameworks interact with governance structures to influence financial stability.

Panel Regression Analysis

Study conducted panel regression analysis to establish the effect of internal controls on financial stability as measured using capital adequacy ratio among commercial banks listed at the Nairobi Securities Exchange. Panel regression was adopted because it accounts for both cross-sectional and time-series variations, enabling more efficient and consistent estimates although controlling for unobserved heterogeneity across banks. In this model, Capital Adequacy Ratio (CAR) was specified as the dependent variable and internal controls as explanatory variable. The regression results on CAR model are presented in Table 3.

Table 3: Panel Regression Results using CAR Model

Dep. Var: CAR	Coef. (β)	Std. Err.	z	P> z
Internal Controls	0.0273	0.0094	2.90	0.004
Constant	0.1425	0.0312	4.57	0.000
P-value: 0.0000				

Estimated Model

$$CA = 0.1425 + 0.0273IC$$

Where:

CA = Capital Adequacy

IC = Internal controls

The findings show that internal controls have a positive and statistically significant effect on capital adequacy ($\beta = 0.0273$, $p = 0.004 < 0.05$). The results imply that a unit improvement in internal controls is expected to lead to 0.0273 unit increase in capital adequacy, holding other variables constant. These findings indicate that strong internal audit systems and risk management frameworks significantly improve financial stability. This suggests that banks with effective internal controls are better able to monitor risks, enforce compliance, and maintain adequate capital buffers. This finding is consistent with the assertions by Hassan (2021) that, banks with effective internal audit systems exhibited stronger capital adequacy outcomes in Sub-Saharan Africa. It also supports the findings by Mwangi (2021) which reported improved compliance and asset quality among banks with strong internal audit practices, although the study did not directly measure capital adequacy. Additionally, Zoghlami and Zouaoui (2022) found that effective internal control systems are associated with higher capital adequacy ratios across banking systems, supporting the importance of internal governance in financial resilience. Table 4 shows regression results using liquidity model.

Table 4: Panel Regression Results (Liquidity Model)

Dep. Var: Liquidity	Coef. (β)	Std. Err.	z	P> z
Internal Controls	0.0084	0.0067	1.25	0.212
Constant	0.3017	0.0824	3.66	0.001
P-value: 0.0000				

The estimated model is presented here below:

$$LQ = 0.3017 + 0.0084IC$$

Where:

LQ = Liquidity

IC = Internal controls

The results show that internal controls have a positive but statistically insignificant effect on liquidity ($\beta = 0.0084$, $p = 0.212 > 0.05$). This suggests that although internal control systems contribute to governance quality, their direct effect on short-term liquidity is limited. A unit improvement in internal controls leads to a 0.0084 unit increase in liquidity, but this effect is not statistically significant. This finding differs from the outcome of a study by Hassan (2021), who reported that strong internal audit systems significantly improved financial stability outcomes in Sub-Saharan Africa. It also contrasts with Zoghlami and Zouaoui (2022), who found that effective internal control systems were associated with stronger capital adequacy and financial resilience. The inconsistency may be explained by the fact that internal controls primarily influence long-term risk management and compliance rather than immediate liquidity positions. Similarly, Mwangi (2021) found that internal audit practices improved asset quality and compliance, but did not directly assess their effect on liquidity, supporting the argument that their influence may be indirect or delayed.

CONCLUSION

The study concludes that internal controls play a critical role in improving financial stability, particularly in supporting long-term capital adequacy, thereby rejecting the null hypothesis. Effective internal audit systems, compliance mechanisms, and risk management frameworks improve financial discipline and ensure adherence to regulatory standards. Internal controls operate as foundational governance structures that improve transparency, reduce operational

risks, and support prudent financial management. In addition, they contribute to institutional stability by supporting monitoring systems and improving the accuracy of financial reporting. Nonetheless, the influence of internal controls on short-term liquidity is less direct, indicating that their primary contribution lies in sustaining long-term financial resilience. Besides supporting capital positions, internal controls improve governance credibility and institutional integrity.

RECOMMENDATIONS

Banks should support internal control systems as a foundation for long-term financial stability. Institutions should invest in advanced risk management systems and internal audit technologies that improve the accuracy and timeliness of financial reporting. Banks should also ensure continuous training of audit and compliance personnel to keep pace with emerging financial risks and regulatory requirements. In addition, organizations should adopt proactive risk management approaches that identify and mitigate potential threats before they materialize. Banks should further integrate internal control systems with strategic planning processes to ensure that risk considerations are embedded in decision-making. Furthermore, regular internal audits and compliance reviews should be conducted to assess the effectiveness of control mechanisms and identify areas for improvement. Besides supporting systems, institutions should promote ethical practices and a strong compliance culture across all levels of the organization.

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