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EFFECT OF LIQUIDITY RISK ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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ABSTRACT

The objective of the study was to assess the effect of liquidity risk on financial performance of commercial banks in Kenya. The theory reviewed was the pecking order theory. The study adopted descriptive research. The target population was 47 senior management, 128 middle management and 303 lower management employees working in the Commercial Banks' headquarters in Nairobi. The study used stratified sampling technique. To learn more about the interest rate drivers and financial performance of commercial banks, the study used primary data. The reliability and validity of the study tools were examined using a pilot group of 22 participants. With the use of descriptive statistics like means, medians, standard deviations, and proportions, as well as the response rate, quantitative, data was evaluated using SPSS version 28, the statistical tool for the social sciences. To find out what mathematical model revealed the association between variables, multiple linear regression analysis was performed. It is common practice to conduct parametric tests that make assumptions about the data. The study showed that the independent objective namely liquidity risk, positively influenced financial performance of commercial banks in Kenya. The following recommendations were made; enhance liquidity management and strengthen regulatory frameworks for liquidity.

Key Words: *Liquidity Risk, Financial Management, Banks in Kenya*

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INTRODUCTION

The banking industry acts as a go-between for individuals, companies, and governments in terms of money. According to Muriithi and Waweru (2022), commercial banks have played a crucial role in propelling Kenya's economy. Nevertheless, banks' financial viability and performance are undermined by periodic financial crisis. Problems with commercial banks' performance can make it hard for individuals, companies, and governments to get the money they need (Ratemo & Ndede, 2021).

Alrwashdeh, Ahmed, Danish, and Shah (2023) state that financial intermediation is a core role of commercial banks. It links businesses, individuals, and other entities with providers of financial services. Loans to businesses and individuals are the main activities of commercial banks. Commercial banks also support savings services. Furthermore, commercial banks check the credit of potential borrowers before giving them loans (Al-Ardah & Al-Okdeh, 2022). According to Ali and Oudat (2020), commercial banks facilitate the transfer of cash from lenders to borrowers through their actions. Commercial banks mediate between those who have surplus cash and those who are short or require more funding, leveling the playing field (Nawabzada, 2021). Furthermore, commercial banks have facilitated small and medium firms' access to credit facilities. Economic growth is therefore stimulated by commercial banks (Kaddumia & Al-Kilani, 2020).

In South Africa, the South African Reserve Bank (SARB) implements monetary policy to achieve inflation targets and maintain currency stability. Interest rate adjustments by the SARB influence banks' lending rates and deposit rates, affecting their net interest margins and profitability (Alfawareh et al., 2022). South African banks operate in a mature and highly concentrated banking sector, facing competitive pressures, regulatory scrutiny, and credit risks associated with high household indebtedness and economic uncertainties (Naji & Shabib–Ul-Hassan, 2023). Diversification into non-interest income streams and digital banking innovations are imperative for South African banks to enhance competitiveness and profitability in a rapidly evolving market landscape (Bekhet, Alsmadi & Khudari, 2020).

In the Kenyan financial landscape, the drivers of interest rates and their impact on the performance of commercial banks are subjects of critical discussion and analysis. Understanding these drivers is paramount as they shape the broader economic environment, influence investment decisions and directly affect the profitability and stability of commercial banks (Walde & Makori, 2022). According to Ngaruiya, Obi and Mathuva (2022), one of the primary drivers of interest rates in Kenya is the monetary policy set by the CBK. Through mechanisms such as the Central Bank Rate (CBR), the CBK regulates the cost of borrowing, thereby influencing commercial banks' lending rates. Changes in the CBR ripple through the financial system, impacting banks' profitability and overall performance (Ogum & Jagongo, 2022).

Commercial banks in Kenya engage in a wide range of banking activities, including deposit-taking, lending, trade finance, treasury operations, foreign exchange services, and electronic banking (Ngaruiya et al., 2022). They offer various banking products and services to individuals, businesses, government entities, and other institutions, tailored to meet diverse customer needs and preferences (Kaimu & Muba, 2021). Typical banking services provided by commercial banks in Kenya include current accounts, savings accounts, fixed deposits, personal loans, mortgages, business loans, credit cards, overdraft facilities, trade finance solutions, cash management services, and wealth management services (Kori et al., 2020).

Statement of the Problem

Ongore and Kusa (2021) investigated the factors influencing the effectiveness of banks in Kenya. The findings revealed that managerial and board of director decisions significantly influenced financial performance at Kenyan commercial banks, in contrast to the low influence of macroeconomic

variables. But the study didn't account for how bank-specific factors affected financial results. Listed Kenyan banks' bottom lines were investigated by King'oo (2020) in relation to specific internal characteristics. While the study found that managerial effectiveness, capital sufficiency, and bank size substantially impacted commercial banks' financial performance, revenue diversification and liquidity had little influence. The impact of earning potential on bank performance was not taken into account in the study. According to Kamande's (2022) research on listed commercial banks in Kenya, asset quality is the most important factor influencing commercial banks' profitability when controlling for other bank-specific variables. Only commercial banks that are listed were considered for the study. Studies on the profitability of commercial banks seem to disagree on a number of key points. There is a lack of research on the effects of interest rates on the profitability of Kenyan commercial banks. To fill that knowledge vacuum, this study examined the impact of liquidity risk, on the profitability of commercial banks in Kenya.

Research Objective

This study was carried out to establish the effect of liquidity risk on financial performance of commercial banks in Kenya. The study was guided by the following hypothesis;

- **H_{01}:** There is no significant relationship between liquidity risk and financial performance of commercial banks in Kenya.

LITERATURE REVIEW

Theoretical Framework

Pecking Order Theory

According to Adusei (2021), Pecking Order Theory, developed by Myers and Majluf in 1984, offers insights into how firms, including commercial banks, prioritize their sources of financing based on the pecking order of available funding options. According to this theory, firms have a hierarchy of preferred financing sources, with internal funds (such as retained earnings) being the most preferred, followed by debt, and finally external equity issuance being the least preferred. The theory suggests that firms prefer internal financing because it avoids the costs and asymmetry of information associated with external financing (Jefferis et al., 2020).

Alkhazali et al. (2021) asserts that Pecking Order Theory can be applied to understand how commercial banks manage liquidity risk and its effects on their financial performance. Liquidity risk refers to the risk that a bank may not be able to meet its short-term obligations due to a shortage of liquid assets or an inability to raise funds at a reasonable cost. Commercial banks rely on various sources of funding to manage liquidity risk, including deposits, interbank borrowing, and short-term debt (Muriithi & Waweru, 2022).

According to Pecking Order Theory, commercial banks prefer to use internal funds, such as retained earnings and existing deposits, to finance their operations and meet liquidity needs. Internal funds are considered the most reliable and cost-effective source of financing, as they do not involve the issuance of new debt or equity, which can be costly and may signal negative information to investors (Ratemo & Ndede, 2021). However, if internal funds are insufficient to meet liquidity needs, commercial banks may resort to external sources of financing, starting with debt issuance. Debt financing allows banks to raise funds quickly to cover short-term liquidity needs, such as funding loan growth or meeting withdrawal demands from depositors. Commercial banks in Kenya often issue short-term debt instruments, such as commercial paper or certificates of deposit, to manage liquidity risk efficiently (El Mahdy, 2023).

According to Yulianti and Pakata (2023), the use of debt financing to manage liquidity risk can have implications for the financial performance of commercial banks in Kenya. While debt issuance provides a temporary solution to liquidity shortages, it also increases the bank's leverage and interest expense, which can reduce profitability and financial stability in the long run. Moreover, excessive reliance on debt financing may signal to

investors that the bank is facing liquidity or solvency concerns, leading to higher borrowing costs and potential rating downgrades (Binsaddig et al., 2023). Furthermore, Pecking Order Theory suggests that commercial banks prefer to issue equity as a last resort to raise funds, as it can signal negative information to investors and dilute existing shareholders' ownership. Equity issuance is typically viewed as a costly and unfavorable option for managing liquidity risk, as it can erode shareholder value and undermine investor confidence (Al-Ardah & Al-Okdeh, 2022).

In summary, Pecking Order Theory provides a framework for understanding how commercial banks in Kenya prioritize their sources of financing to manage liquidity risk and maintain financial performance. By relying on internal funds and debt financing as preferred options, banks can mitigate the costs and risks associated with external equity issuance while ensuring sufficient liquidity to meet short-term obligations and support sustainable growth. Proponents of Pecking Order Theory have contributed to our understanding of corporate finance and capital structure decisions, informing policymakers and investors' strategies to promote financial stability and efficiency in the banking sector.

Empirical Literature Review

According to Muriithi and Waweru (2022), Kenyan commercial banks' financial performance was studied in relation to liquidity risk. The interest period for each of the 43 officially registered commercial banks in Kenya was from 2005 to 2014. To measure financial success, we utilized return on equity (ROE), and to keep an eye on liquidity risk, we used liquidity coverage ratio (LCR) and net stable funding ratio (NSFR). The information came from commercial banks' financial reports that were sent to the Kenyan Central Bank. Panel data techniques, including GMM and random effects estimates, were utilized to minimize time-invariant, unobserved firm specific effects and to decrease the risk of endogeneity concerns. We used a pairwise technique to find the correlation between the variables. Using Wald and F-tests, we found out whether the regression was statistically significant. We next used within and between coefficients of determination to estimate how much of the dependent variable's variation could be explained by the independent variables. According to the findings, commercial banks in Kenya are mostly unaffected by LCR with respect to their short- and long-term financial performance, but NSFR significantly reduces bank profitability. The long-term effects of liquidity risk on financial performance are negative, nevertheless. Therefore, bank management should prioritize liquidity management.

Ratemo and Ndede (2021) investigated the effect of liquidity worries on the business financial performance of banks. Determine the effect of bank size, asset quality, operational efficiency, and capital sufficiency on this performance; these were some of the researchers' primary objectives. Additionally, the impact of the money supply on the relationship between liquidity risks and the profitability of commercial banks was discerned. Every one of the 42 Kenyan commercial banks that made up the sample employed a causal research strategy. To compile its findings, this research used secondary sources. Financial information and reports from CBK and individual commercial banks made up the secondary data. Financial performance of commercial banks is positively and significantly affected by the size coefficient, according to the data. Investment banks' bottom lines improved when capital was adequate, but they suffered a negative and statistically significant impact when asset quality was a factor. A commercial bank's operational efficiency coefficient was positively and significantly associated with the bank's financial performance. This relationship between liquidity hazards and the performance of commercial banks is moderated by the money supply, which has a stronger coefficient of determination. As a big proposal, commercial banks could consider expanding their product offerings to boost their profits.

When it comes to Egyptian banks, El Mahdy (2023) looked at how liquidity risk affects their performance. Also investigated in this study was the impact on Egyptian banks' performance of the interaction between liquidity risk and nonperforming loans. Egyptian banks registered on the Egyptian Stock Exchange provided the empirical data, which was derived from a sample of 396 observations for the period 2013–2021. As a means of statistical analysis, the data was examined using mixed-effects models. Common metrics for evaluating financial institutions include ROA, ROE, and stock price. Using return on assets (ROA) as a metric, the empirical results show that liquidity risk significantly lowers financial performance for banks. Additionally, nonperforming loans are significantly and negatively correlated with bank performance as measured by return on equity (ROE). Even more so, when looking at the stock price model, we find that nonperforming loans and liquidity risk interact negatively with one another to affect bank performance. Because of this, it is clear that methods for controlling liquidity risk are critical for determining whether or not a bank will be profitable. Investors' money is at stake, thus banks need to employ careful risk management techniques.

A study conducted by Yulianti and Pakata (2023) examined how optimizing liquidity risk affected stability. For the years 2012–2021, researchers in Indonesia set out to determine how liquidity risk affected the stability of Islamic commercial banks, controlling for credit risk and operational efficiency. From 2012 through 2021, the financial services regulator released financial reports detailing the activities of Islamic commercial banks, which this study uses as secondary data. The sample was taken using a non-probability sampling technique, namely purposive sampling in order to obtain 10 Islamic commercial banks. The analysis technique is carried out by testing 6 (six) hypotheses. The results of this study indicate that liquidity risk can have a direct effect on bank stability, but there are also credit risk and operational efficiency variables play a role in mediating the relationship to the stability of the bank.

The factors influencing the liquidity risk of commercial banks in Jordan were examined by Alrwashdeh, Ahmed, Danish, and Shah (2023) using data gathered from 2003 to 2017. Each and every commercial bank is represented in the study's sample through the use of pooled ordinary least squares and panel 2 standard linear regression econometric techniques. According to the academic study, liquidity risk is favorably impacted by bank size, ROA, CAR, risk, nonperforming loans (NPL), T-equality, and T-liability. A negative and large influence on liquidity risk is revealed by ROE, though. This study suggests that regulators should monitor the discovered internal characteristics that decrease bank liquidity in order to decrease the probability of a bank run.

Using data from the Amman Stock Exchange, Alshehadeh (2021) analyzed the connection between liquidity risk and profitability for commercial banks. Annual reports from 2010–2019 were the basis of the study. This was accomplished by employing a suitable multiple regression model. The majority of profitability measurements did not demonstrate a meaningful correlation with the liquidity risk indicators. But whatever the case may be, there was statistical significance in both the UR and CRR indices. There was a statistically significant relationship between return on equity, legal reserve ratios, and investment returns. This study suggests that financial policy planners in Jordanian commercial banks should be more cognizant of the correlation between liquidity risk indicators and profitability. This is due to the fact that the amount of investments that banks get is directly impacted by the degree of liquidity that is maintained. So, by raising the bank's stock exchange stake, it influences the market value of the bank.

Success or failure for a financial institution is largely dependent on its ability to predict its liquidity needs, which can be achieved through various deposit structures or the surplus amount that ultimately decides performance (Kaddumia and Al-

Kilani, 2020). To accomplish its goals, the study used an analytical descriptive technique to quantify the correlation between banks' performance and liquidity risk management. We computed and examined liquidity and performance metrics of thirteen publicly traded Jordanian commercial banks to study this impact. Both the population and the sample for this study are financial records from commercial banks in Jordan. The research showed that there was no influence on EPS and a strong negative effect on operational cash flow per share (OCFS) when the ratio of loans to total deposits was high. Indicators of banking sector performance showed an improvement, which was explained by quick ratio. One performance metric that showed improvement was the ratio of cash and investments to total deposits. If the ratio of loans to total assets were to drop, it would have a significant negative effect on OCFS and a little negative effect on earnings per share. In conclusion, while implementing a liquidity risk management plan, it is more appropriate to use cash basis performance measures rather than accrual basis indicators since the impact on OCFS was greater than on EPS.

Al-Ardah and Al-Okdeh (2022) examined how liquidity risk affected the bottom lines of Jordanian banks. Liquidity ratios, net working capital, and the ratio of cash and investments to total deposits were among the criteria utilized to assess liquidity risk. The bank's size was modified using the natural logarithm of total assets, and return on assets was utilized as an additional criterion for financial success. The goals of the study were achieved by the application of the analytical quantitative approach. The study's participants represented all thirteen of the Amman Stock Exchange's commercial banks. According to the data, liquidity risk had an impact on the bottom lines of Jordanian commercial banks traded on the Amman Stock Exchange. This was also true for the following ratios: current liquidity, net working capital, cash to total deposits, and investment to total deposits. Researchers found that the impact of liquidity risk on return on assets (ROA), a metric for financial performance, is affected by bank size among Jordanian commercial banks listed on the Amman Stock Exchange. Using liquidity more actively within acceptable risk boundaries is something that commercial bank administrations should do if they want to attain ideal financial performance ratios, according to the report. Banks' bottom lines can benefit from liquidity risk if they strike a good balance between the potential rewards and the dangers of these expenditures.

Conceptual Framework

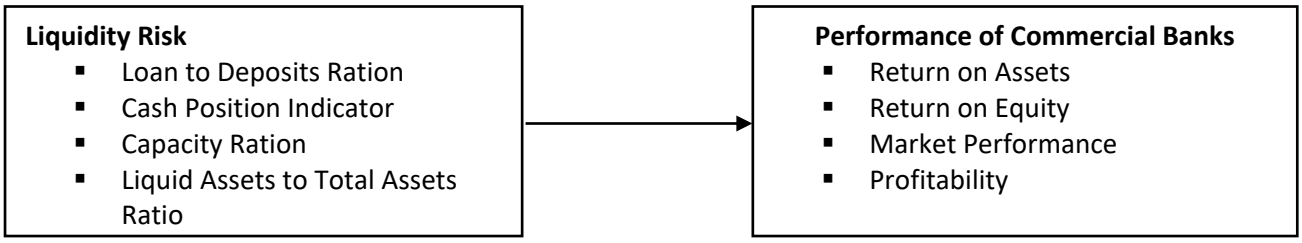

Figure 1: Conceptual Framework

METHODOLOGY

This study used a descriptive research strategy. The target population for this study consisted of employees working in the headquarters of commercial banks located in Nairobi, Kenya. All commercial banks based in Nairobi were included in this study's sampling frame, including both managerial and administrative personnel. The research employed a stratified sampling method. The Yamane formula was used to determine the sample population. The data in the table indicate

that 218 participants made up the sample for this research.

$$\mathbf{n} = \frac{\mathbf{N}}{\mathbf{1+N(e^2)}}$$

Therefore, the size of the sample based on the formula is depicted in equation below;

$$\mathbf{n} = \frac{\mathbf{478}}{\mathbf{1+478(0.05^2)}}$$

n = 218

The study depended on the use of questionnaires as the primary resource. Twenty-two participants served as pilots for the research instruments used in this study. The dependability of the research tools was evaluated in this study using the test-retest approach. The researcher later computed the reliability coefficient by using Cronbach's alpha formula to the reliability test.

Acceptance of both content and face validity were exhibited in this study. The quantitative data was examined using SPSS version 28, which included descriptive statistics like means, medians, standard deviations, and proportions, as well as the calculation of the response rate. Frequency tables were used to display the data to be studied.

RESULTS AND DISCUSSIONS

Response Rate

The number of questionnaires that were administered was 218 and a total of 188 questionnaires were properly filled and returned. Some of the respondents returned the questionnaires half-filled while others refused to return them completely despite a lot of follow up. The response rate was 86% as shown on Table 1.

Table 1: Response Rate

Response	Frequency	Percent
Returned	188	86
Unreturned	30	14
Total	**218**	**100**

Descriptive Results

Liquidity Risk

The study sought to establish the effect of liquidity risk on financial performance of commercial banks in Kenya. Table 2 presents a detailed analysis of respondents' perceptions of liquidity risk in banks, measured through various statements. Each statement is evaluated by respondents on a scale, with the results summarized in terms of mean scores and standard deviations. This analysis provides a comprehensive understanding of how different liquidity indicators are perceived in terms of their effectiveness and reliability.

The statement "Banks with a higher Loan to Deposits Ratio are more exposed to liquidity risk" has a mean score of 4.1064 and a standard deviation of 0.66168. This high mean score indicates a strong agreement among respondents that a higher Loan to Deposits Ratio is associated with greater liquidity risk. The relatively low standard deviation suggests that there is a consensus among the respondents regarding this perception, highlighting a shared understanding of the relationship between loan-to-deposit ratios and liquidity risk.

In assessing whether "The Loan to Deposits Ratio adequately captures the liquidity risk associated with lending activities," the mean score is 3.9309 with a standard deviation of 0.85937. While the mean score suggests general agreement, the higher standard deviation compared to the previous statement indicates more variability in respondents' opinions. This suggests that while many believe the Loan to Deposits Ratio is a useful measure, there is some divergence in views on its adequacy in capturing liquidity risk.

The statement "A higher Cash Position Indicator indicates better liquidity management by banks"

has a mean score of 4.2021 and a standard deviation of 0.58647. The high mean score reflects strong agreement that a higher Cash Position Indicator is indicative of better liquidity management. The low standard deviation shows that respondents largely agree on this point, underscoring the importance placed on cash positions in assessing liquidity management.

Regarding the reliability of the Cash Position Indicator as a predictor of a bank's ability to meet short-term obligations, the mean score is 3.9787 with a standard deviation of 0.63715. The mean score indicates agreement among respondents, and the low standard deviation suggests that there is a consistent belief in the reliability of the Cash Position Indicator for this purpose. This consistency emphasizes the confidence in using the Cash Position Indicator to gauge short-term liquidity.

For the statement "A higher Capacity Ratio indicates a stronger liquidity buffer against unexpected cash outflows," the mean score is 3.9255 and the standard deviation is 0.74201. The mean score shows general agreement that a higher Capacity Ratio suggests a stronger liquidity buffer. However, the slightly higher standard deviation indicates some variability in opinions, suggesting that while many see the Capacity Ratio as indicative of liquidity strength, there is some variation in how strongly this view is held.

The statement "The Capacity Ratio provides a comprehensive assessment of a bank's liquidity risk exposure" has a mean score of 4.2606 with a standard deviation of 0.59512. This high mean score signifies strong agreement on the comprehensiveness of the Capacity Ratio in assessing liquidity risk. The low standard deviation indicates that this view is widely shared among respondents, reinforcing the perceived value of the Capacity Ratio in liquidity risk assessment.

The mean score for the statement "A higher Liquid Assets to Total Assets Ratio indicates a more liquid balance sheet" is 4.1383, with a standard deviation of 0.63078. The high mean score reflects strong agreement that a higher ratio of liquid assets to total assets indicates better liquidity. The low standard deviation suggests a consensus among respondents, highlighting the importance of this ratio in evaluating a bank's liquidity.

Lastly, for the statement "Banks with a lower Liquid Assets to Total Assets Ratio are more likely to face liquidity constraints during economic downturns," the mean score is 3.9043 with a standard deviation of 0.80199. The mean score indicates agreement, while the higher standard deviation shows more variability in respondents' views. This variability suggests that while many believe that lower liquid asset ratios correlate with liquidity constraints, opinions on this relationship are less uniform compared to other statements.

In summary, the analysis in Table 2 reveals a strong consensus among respondents regarding the importance and effectiveness of various liquidity risk indicators. The high mean scores across most statements indicate general agreement on the principles underlying liquidity risk, while the standard deviations provide insight into the degree of consensus. These findings underscore the perceived reliability of specific liquidity measures in assessing a bank's ability to manage liquidity risk effectively.

Recent studies support these findings. Aspal et al. (2019) examined the impact of liquidity risk on the financial performance of Indian commercial banks, finding that liquidity risk negatively affects financial performance. This supports the perception that higher Loan to Deposits Ratios are risky, as increased loan-to-deposit ratios correlate with higher liquidity risk, leading to reduced financial stability and performance (Aspal et al., 2019). Similarly, Gitari and Musau (2023) conducted a study on Kenyan banks, revealing that effective liquidity management, indicated by higher cash reserves, positively impacts financial performance. This finding aligns with the high mean score for the Cash Position Indicator, suggesting that better liquidity management through maintaining substantial cash reserves can improve a bank's

ability to meet short-term obligations and enhance overall financial performance.

Table 2: Liquidity Risk

Statements	N	Mean	Std. Dev
Banks with a higher Loan to Deposits Ratio are more exposed to liquidity risk	188	4.1064	.66168
The Loan to Deposits Ratio adequately captures the liquidity risk associated with lending activities	188	3.9309	.85937
A higher Cash Position Indicator indicates better liquidity management by banks	188	4.2021	.58647
The Cash Position Indicator is a reliable predictor of a bank's ability to meet short-term obligations	188	3.9787	.63715
A higher Capacity Ratio indicates a stronger liquidity buffer against unexpected cash outflows	188	3.9255	.74201
The Capacity Ratio provides a comprehensive assessment of a bank's liquidity risk exposure	188	4.2606	.59512
A higher Liquid Assets to Total Assets Ratio indicates a more liquid balance sheet	188	4.1383	.63078
Banks with a lower Liquid Assets to Total Assets Ratio are more likely to face liquidity constraints during economic downturns	188	3.9043	.80199
Valid N (listwise)	188		

Financial Performance

Table 3 offers an analysis of respondents' perceptions regarding various aspects of their bank's financial performance. Each statement is evaluated based on its mean score and standard deviation, providing insights into the consistency and competitiveness of the bank's financial metrics. The statement "Our bank's ability to generate profit from its assets is consistently strong" has a mean score of 4.1809 and a standard deviation of 0.87095. The high mean score indicates a strong agreement that the bank is effective in generating profits from its assets, reflecting a positive assessment of asset utilization. The standard deviation suggests a moderate level of variability in responses, indicating that while the overall sentiment is positive, there are varying degrees of confidence in this ability among respondents.

For the statement "Compared to industry benchmarks, our bank's ROA is competitive and satisfactory," the mean score is 3.9309 with a standard deviation of 0.93677. The mean score suggests general agreement that the bank's Return on Assets (ROA) is competitive within the industry. However, the standard deviation indicates some variability in responses, suggesting that while many respondents see the ROA as satisfactory, opinions differ on how well the bank truly compares to industry benchmarks.

The statement "Our bank consistently delivers strong returns to shareholders relative to its equity" has a mean score of 4.2074 and a standard deviation of 0.62441. This high mean score indicates strong agreement that the bank provides substantial returns to shareholders, reflecting positive perceptions of shareholder value. The low standard deviation indicates a strong consensus among respondents, suggesting widespread confidence in the bank's ability to deliver these returns consistently.

Regarding the efficiency of shareholder investment utilization, the statement "Our bank's ROE reflects efficient utilization of shareholder investments and resources" has a mean score of 3.7234 and a standard deviation of 1.19181. The mean score shows moderate agreement, indicating that respondents believe the Return on Equity (ROE) reflects efficient use of investments. However, the high standard deviation indicates considerable variability in opinions, suggesting that some

respondents may have reservations about the bank's efficiency in utilizing shareholder resources.

The statement "Our bank's market share and penetration are consistently expanding in the industry" has a mean score of 4.1011 and a standard deviation of 1.05232. The mean score reflects strong agreement that the bank is successfully expanding its market share and penetration. The higher standard deviation, however, indicates notable variability in responses, suggesting that while many respondents see growth, others may perceive it as inconsistent or less significant.

For the adaptability of the bank, the statement "Our bank is effectively adapting to changing market dynamics and customer needs to sustain and improve market performance" has a mean score of 3.9787 and a standard deviation of 1.20586. The mean score suggests agreement that the bank is effectively adapting to market changes. However, the high standard deviation indicates significant variability in responses, highlighting differing opinions on the bank's adaptability and responsiveness to market dynamics.

The statement "Cost management strategies implemented by our bank contribute positively to overall profitability" has a mean score of 4.3138 and a standard deviation of 0.52978. The very high mean score indicates strong agreement that cost management strategies are positively impacting profitability. The low standard deviation shows strong consensus, suggesting widespread confidence in the effectiveness of these strategies.

Finally, the statement "Our bank's profitability is resilient against external economic shocks and fluctuations" has a mean score of 4.2181 and a standard deviation of 0.62076. The high mean score reflects strong agreement that the bank's profitability is resilient to external economic conditions. The relatively low standard deviation indicates a strong consensus among respondents, suggesting confidence in the bank's ability to withstand economic fluctuations.

In summary, Table 3 reveals a generally positive assessment of the bank's financial performance across various dimensions. High mean scores indicate strong agreement on the bank's profitability, competitive positioning, and adaptability. Standard deviations provide insights into the degree of consensus, with some areas showing more variability in opinions than others. These findings underscore a broad confidence in the bank's financial strategies and resilience, while also highlighting areas where perceptions may differ among respondents.

Recent studies corroborate these perceptions. A study by Tamakloe et al. (2023) examined the impact of risk management on the performance of commercial banks in Ghana. The study found that operational risk significantly influences bank performance, accounting for 99.24% of variability. Additionally, total risk management explained 74.74% of the variance in bank performance. This suggests that effective risk management, particularly operational risk, is crucial for maintaining strong financial performance. The findings align with the high mean scores, indicating strong profitability and resilience. The study utilized a panel regression approach, analyzing secondary data from the yearly financial statements of seven commercial banks, which represent over 50% of Ghana’s financial market. The research emphasizes the importance of robust risk management strategies in sustaining bank performance amidst various operational challenges.

Similarly, research by Majondo et al. (2023) explored the impact of credit risk management on the financial performance of commercial banks in Tanzania. The study highlighted that proper management of credit risks significantly enhances financial stability and profitability. This supports the perceptions reflected in Table 3, where respondents noted strong returns to shareholders and effective utilization of resources. Majondo et al. utilized a comprehensive analysis of credit risk management practices and their direct impact on key financial metrics, such as return on equity (ROE) and return

on assets (ROA), underscoring the critical role of credit risk mitigation in achieving robust financial performance.

Table 3: Financial Performance

Statements	N	Mean	Std. Dev
Our bank's ability to generate profit from its assets is consistently strong	188	4.1809	.87095
Compared to industry benchmarks, our bank's ROA is competitive and satisfactory	188	3.9309	.93677
Our bank consistently delivers strong returns to shareholders relative to its equity.	188	4.2074	.62441
Our bank's ROE reflects efficient utilization of shareholder investments and resources.	188	3.7234	1.19181
Our bank's market share and penetration are consistently expanding in the industry	188	4.1011	1.05232
Our bank is effectively adapting to changing market dynamics and customer needs to sustain and improve market performance	188	3.9787	1.20586
Cost management strategies implemented by our bank contribute positively to overall profitability	188	4.3138	.52978
Our bank's profitability is resilient against external economic shocks and fluctuations	188	4.2181	.62076
Valid N (listwise)	188		

Correlation Analysis

Table 4 provides a correlation matrix that highlights the relationships between Financial Performance and Liquidity Risk. The Pearson Correlation coefficients and their significance levels offer insights into the strength and direction of these relationship. The correlation between Financial Performance and Liquidity Risk is (0.605), with a significance level of ($p < 0.01$). This positive correlation suggests a moderate to strong relationship, indicating that as liquidity risk is managed effectively, financial performance tends to improve. The significant p-value underscores that this relationship is statistically meaningful. This implies that liquidity management practices are crucial for enhancing a bank's financial performance, as better liquidity positions reduce risks and contribute positively to overall financial health.

Table 4: Correlation Matrix

		Financial Performance	Liquidity Risk
Financial Performance	Pearson Correlation	1	.605**
	Sig. (2-tailed)		.000
	N	188	188
Liquidity Risk	Pearson Correlation	.605**	1
	Sig. (2-tailed)	.000	
	N	188	188

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

Model Diagnostics

Normality Test using Kolmogorov-Smirnov

Table 5 presents the results of the Tests of Normality for Liquidity Risk and Financial Performance using the Kolmogorov-Smirnov and Shapiro-Wilk tests. These tests evaluate whether the distribution of these variables deviates significantly from a normal distribution. For Liquidity Risk, the Kolmogorov-Smirnov test yields a statistic of 0.209 and a significance level of 0.000. The Shapiro-Wilk test results in a statistic of 0.902 with a significance level of 0.000. Both tests indicate

that the distribution of Liquidity Risk significantly deviates from normality ($p < 0.01$). The low significance values (p-values) from both tests confirm that Liquidity Risk does not follow a normal distribution, suggesting that non-parametric methods or data transformation may be necessary for further analysis involving this variable.

Table 5: Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Liquidity Risk	.209	188	.000	.902	188	.000
Financial Performance	.162	188	.000	.956	188	.000

a. Lilliefors Significance Correction

Test for Multicollinearity

Table 6 presents the results of the multicollinearity test for the regression model, specifically focusing on the tolerance and Variance Inflation Factor (VIF) values for the independent variables, Liquidity Risk..

The tolerance value for Liquidity Risk is 0.469, and its corresponding VIF is 2.134. Tolerance values below 0.1 indicate high multicollinearity, while VIF values above 10 suggest severe multicollinearity. In this case, the tolerance value is well above 0.1, and the VIF value is below 10, indicating that Liquidity Risk does not exhibit problematic multicollinearity in this model.

Table 6: Multicollinearity Test

		Collinearity Statistics	
Model		Tolerance	VIF
1	Liquidity Risk	.469	2.134

a. Dependent Variable: Financial Performance

Test for Linearity

The scatter plots in the image illustrate the relationship between Financial Performance and Liquidity Risk. These plots help to visually assess the linearity between each pair of variables, which is an important assumption in regression analysis.

The scatter plot for Liquidity Risk vs Financial Performance shows a positive linear relationship. As Liquidity Risk increases, Financial Performance also tends to increase. This suggests that higher liquidity risk management correlates with better financial performance, aligning with the positive correlation observed in the correlation matrix.

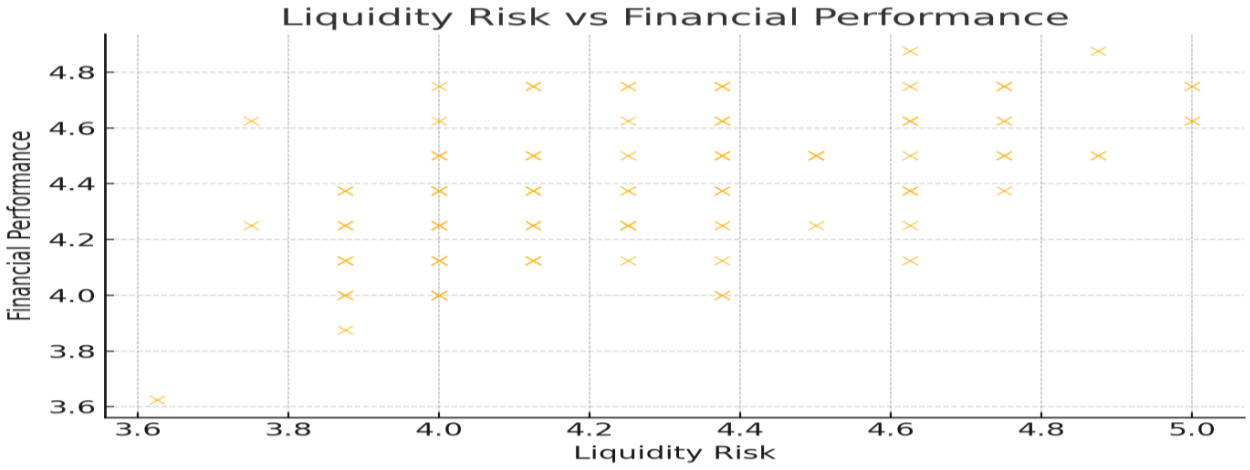

Figure 2: Scatter Plot

Regression Analysis

Regression Coefficients

The unstandardized coefficients (B) in the regression model represent the change in the dependent variable, Financial Performance, for a one-unit change in the independent variable, while holding all other variables constant. These coefficients provide insights into the direct impact of each predictor on Financial Performance.

The unstandardized coefficient for the Constant (Intercept) is 0.685, with a standard error of 0.158. This value indicates the baseline level of Financial Performance when the independent variable (Liquidity Risk) is zero. Essentially, it represents the expected Financial Performance in the absence of any influence from the predictors. The standard error of 0.158 shows the level of precision in estimating this coefficient.

Table 7: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.685	.158		4.326	.000
	Liquidity Risk	.125	.042	.156	2.937	.004

a. Dependent Variable: Financial Performance

Hypothesis Test

Table 8: Summary of Hypothesis Tested

S/No	Hypothesis	Decision
H_{01}	There is no significant relationship between liquidity risk and financial performance of commercial banks in Kenya.	Reject (Significant: $p < 0.05$)

CONCLUSIONS AND RECOMMENDATIONS

The study concludes that liquidity risk is a crucial determinant of financial performance for commercial banks in Kenya. The positive and significant relationship between liquidity risk and financial performance suggests that effective liquidity management practices are vital. Banks that maintain adequate liquidity are better positioned to meet short-term obligations and navigate financial uncertainties. The ability to quickly convert assets into cash without a significant loss of value is essential for meeting withdrawal demands, funding loans, and other financial obligations. Liquidity management involves not just having sufficient liquid assets but also implementing strategies to manage cash flows effectively. These strategies might include maintaining a balance between short-term assets and liabilities, investing in highly liquid and low-risk securities, and establishing reliable lines of credit. Therefore, improving liquidity risk management can lead to enhanced financial performance, reinforcing the importance of maintaining a strong liquidity buffer.

The study recommended implementation of Robust Liquidity Monitoring Systems. Banks should invest in advanced liquidity monitoring systems that provide real-time data on liquidity positions. This will enable timely decision-making and ensure that banks can quickly respond to liquidity shortages or surpluses. Establish comprehensive contingency funding plans that outline strategies for accessing emergency funding during liquidity crises. This could include pre-arranged lines of credit, asset sales, and access to central bank facilities.

The study also recommended that regulators should impose stricter liquidity requirements, such as higher liquidity coverage ratios and net stable funding ratios, to ensure banks maintain sufficient liquid assets to meet short-term obligations. Require banks to conduct regular liquidity stress tests to assess their ability to withstand economic shocks. These tests should simulate various

scenarios, including sudden withdrawals and market disruptions.

Areas for Further Research

Future research should explore several key areas to build on the findings of this study and deepen the understanding of factors influencing the financial performance of commercial banks. One potential area for further investigation is the impact of other macroeconomic variables, such as exchange rates, GDP growth, and unemployment rates, on the financial performance of banks.

Another promising area for further research is the role of regulatory changes and compliance requirements in shaping the financial stability and performance of banks. Investigating how different regulatory regimes impact banks' risk-taking behavior and financial outcomes could provide insights into the effectiveness of regulatory policies. Comparative studies across different countries or regions could highlight best practices and identify regulatory approaches that support financial stability and growth.

Finally, considering the increasing importance of environmental, social, and governance (ESG) factors, future research could analyze how ESG practices influence bank performance. Investigating the relationship between sustainability initiatives, corporate social responsibility, and financial outcomes can shed light on the long-term benefits of incorporating ESG considerations into banking operations.

By exploring these areas, future research can contribute to a more nuanced and comprehensive understanding of the factors that influence the financial performance of commercial banks, guiding more effective strategic planning and policymaking in the banking sector.

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