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FINANCIAL STRUCTURE AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS LISTED AT NAIROBI SECURITIES EXCHANGE (NSE), KENYA

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ABSTRACT

Commercial banks play a critical role in the economic development of Kenya. As financial intermediaries, they mobilize savings from the public and channel these funds into productive investments, thereby supporting business growth and economic stability. However commercial banks listed at the Nairobi Securities Exchange often face difficulties in balancing their financial structure components, such as retained earnings, long-term debt, to enhance their financial performance. This study focused on evaluating the influence of financial structure on the financial performance of commercial banks listed at Nairobi Securities Exchange in Kenya. Specifically, the study sought to evaluate the influence of retained earnings on financial performance of commercial banks listed at Nairobi Securities Exchange in Kenya, to analyze the influence of long-term debt on financial performance of commercial banks listed at Nairobi Securities Exchange in Kenya. The study is guided by Residual Theory of Dividends, and Trade-Off Theory. The study employs a explanatory research design. The target population consists of all 11 commercial banks listed on the Nairobi Securities Exchange (NSE) as of December 2024 (NSE, 2024). The sampling frame includes the 11 listed commercial banks on the NSE. Financial data for these banks was sourced from their audited financial statements, ensuring accuracy and credibility. The study employed a census approach, including all 11 listed banks. Secondary data was collected using a structured data extraction sheet. Quantitative data was analyzed using panel regression analysis. Descriptive statistics such as mean, standard deviation, and percentages were summarize data patterns, while inferential statistics tested research questions. Findings were presented using tables, graphs, and charts for clarity and interpretability. The study concludes that retained earnings has a positive and significant effect on financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya. Further, the study concludes that long-term debt has a positive and significant effect on financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya. From the findings, the study recommends that the management of commercial banks in Kenya should pursue deliberate policies that strengthen and optimally structure their share capital by encouraging rights issues, bonus issues, and strategic equity injections that enhance capitalization without diluting shareholder value.

Key Words: Financial structure, retained earnings, long-term debt, financial performance, return on assets, commercial banks, Nairobi Securities Exchange, Kenya.

INTRODUCTION

The financial sector encompasses a broad range of industries and institutions that manage money, including banks, investment firms, insurance companies, and real estate enterprises. It plays a critical role in supporting economic growth by facilitating the flow of capital, offering credit, managing risk, and providing liquidity to markets (Huynh *et al*, 2024). Key functions include savings and investment services, payment processing, asset management, and financial advising. The sector is heavily influenced by regulatory frameworks, interest rates, and global economic conditions, and it is increasingly shaped by technological advancements such as fintech, digital banking, and blockchain innovations (Dai, 2022). Its stability and efficiency are essential to the overall health of both national and global economies. Commercial banks are financial institutions that accept deposits from individuals and businesses, provide checking and savings accounts, and offer a range of loan products such as personal loans, mortgages, and business financing (Shamsuddin, *et al*, 2020). Commercial banks are regulated by government authorities to ensure financial stability and consumer protection, and they play a vital role in maintaining liquidity and supporting economic development within a country (Mohammad & Bujang, 2020).

Commercial banks play a central role in the economy by serving as financial intermediaries that facilitate the flow of money between savers and borrowers. They accept deposits from individuals, businesses, and institutions, providing a safe place to store funds while also offering interest on certain types of accounts (Rzeszowski & Sierpińska, 2022). These deposits form the base of the bank's lending capacity, enabling them to issue loans to consumers for purposes such as home purchases, education, or business expansion. By mobilizing savings and channeling them into productive investments, commercial banks support economic growth and development (Nakiranda & Onsiro, 2022). Commercial banks offer a range of financial services that support both individual and corporate clients. These include payment and money transfer services, issuance of debit and credit cards, foreign exchange operations, and wealth management (Serge, 2024). For businesses, commercial banks provide crucial services like payroll management, trade financing, and credit lines, which help maintain operational stability and promote expansion. By offering these services, banks contribute to the smooth functioning of commerce and the broader financial system (Desalegn & Emese, 2024).

Furthermore, commercial banks play a key role in maintaining financial stability within a country. They are subject to regulatory oversight and are required to maintain capital reserves to mitigate risks and ensure solvency (Arhinful, Mensah & Owusu-Sarfo, 2023). In times of economic distress, central banks may rely on commercial banks to implement monetary policies, such as adjusting interest rates or facilitating emergency lending. Their widespread presence and infrastructure also make them vital in promoting financial inclusion, especially in underserved or rural areas, by providing access to basic financial services. Overall, commercial banks are essential pillars of the modern financial system (Onwe, Mustapha & Yahaya, 2020).

Financial structure refers to the specific mix of debt and equity that a company uses to finance its overall operations and growth. It includes all sources of capital such as long-term debt, short-term borrowings, preferred stock, and common equity and reflects how a company balances risk and return in its capital funding (Priscah, Ndung'u & Abayo, 2021). The financial structure affects a firm's financial stability, cost of capital, and flexibility in responding to changes in the market or business environment. An optimal financial structure aims to minimize the cost of capital while maximizing shareholder value (Gathara, 2022). Share capital represents the funds raised by issuing shares to investors, and it reflects ownership in the company. It is a permanent source of capital

and doesn't require repayment, but it dilutes ownership and may involve dividends (Mwaniki, Oluoch & Ndambiri, 2023).

Retained earnings are profits that a company reinvests into the business rather than distributing as dividends. These funds are internal and cost-free compared to borrowed funds, often used for expansion, research and development, or reducing reliance on external financing (Ngure, Mutea & Muema, 2024). Long-term debt includes loans or bonds with repayment periods typically exceeding one year. It provides a stable source of funding for capital-intensive projects and usually comes with lower interest rates than short-term debt, but it increases financial risk through fixed interest obligations (Mwangi, 2023). Short-term debt, such as lines of credit or trade payables, is used to finance immediate working capital needs and typically matures within a year. While it can be more flexible and easier to obtain, it often carries higher interest rates and poses liquidity risks if not managed carefully (Huynh *et al*, 2024). This study seeks to evaluate the influence of financial structure on the financial performance of commercial banks listed at Nairobi Stock Exchange in Kenya.

Statement of the Problem

Commercial banks play a pivotal role in the economic development of Kenya by mobilizing savings from the public and channeling these funds into productive investments that support business growth and economic stability (Priscah, Ndung'u & Abayo, 2021). As financial intermediaries, their effectiveness and sustainability largely depend on their ability to utilize resources efficiently and maintain strong financial performance.

Financial performance is a key indicator of the efficiency and long-term sustainability of commercial banks. Return on Assets (ROA) is one of the most widely used measures of financial performance, as it captures how effectively a bank utilizes its asset base to generate profits. This measure is particularly important for banks due to their large asset portfolios, high leverage levels, and strict regulatory oversight. International evidence indicates that a bank ROA of approximately 1.5%–1.8% is considered strong, with banks in developed economies often recording ROA below 1.5%, while banks in emerging markets tend to achieve relatively higher returns from 3.0% (Athanasoglou et al., 2008; Saona, 2016).

Within this global context, commercial banks listed at the Nairobi Securities Exchange (NSE) have demonstrated moderate performance, recording average ROA levels ranging between 2% and 4% over the period 2015–2024. While this performance compares favorably with banks in developed economies, it remains significantly lower than that of other industries listed at the NSE. Sectors such as telecommunications, manufacturing, and energy have consistently reported ROA levels exceeding 8% to 15% over the same period. This persistent performance gap raises concerns about the efficiency of asset utilization among listed commercial banks relative to firms operating within the same economic environment.

Furthermore, despite regulatory reforms, enhanced capital adequacy requirements, and balance-sheet restructuring initiatives implemented by regulators over the years, improvements in ROA among listed commercial banks have remained marginal and inconsistent, particularly during periods of economic stress such as the COVID-19 pandemic. In contrast, other NSE-listed industries demonstrated greater resilience and superior ROA performance during the same period. This divergence raises critical questions regarding whether the financial structure decisions adopted by listed commercial banks adequately support sustainable financial performance.

Consequently, there exists a clear empirical research gap in understanding the extent to which retained earnings, share capital, long-term loans, and short-term loans affect the ROA of listed

commercial banks in Kenya. For instance, Mwangi (2023) researched on the effect of financial structure on financial performance of firms. Mwaniki, Oluoch and Ndambiri (2022) assessed on the effect of financing structure on the financial performance of deposit taking savings and credit cooperatives and Priscah, Ndung'u and Abayo (2021) investigated on the effect of financial structure on financial performance of listed commercial banks for 5 years between 2015-2019.

The existing studies largely examined financial structure components in isolation, within a different sector, within limited timelines or, and did not comprehensively assess the effect of all variables of financial structure(share capital, retained earnings, long-term debt, and short-term debt) on the financial performance of commercial banks listed at the NSE.

To fill the highlighted gaps, the current study sought to evaluate the effect of financial structure (share capital, retained earnings, long-term debt and short-term debt) on financial performance of commercial banks listed at Nairobi Securities Exchange in Kenya.

General Objective

The main objective was to evaluate the effect of financial structure on financial performance of commercial banks listed at Nairobi Securities exchange, kenya.

Specific Objectives

The study was guided by the following specific objectives;

i. To evaluate the effect of retained earnings on financial performance of commercial banks listed at Nairobi Securities exchange, kenya.
ii. To analyze the effect of long-term debt on financial performance of commercial banks listed at Nairobi Securities exchange, kenya.

Hypotheses of the Study

$H_0$2: Retained earnings has no statistically significant influence on financial performance of commercial banks listed at Nairobi Securities exchange, kenya

$H_0$3: Long-term debt has no statistically significant influence on financial performance of commercial banks listed at Nairobi Securities exchange, kenya

LITERATURE REVIEW

Theoretical Framework

Residual Theory of Dividends

The Residual Theory of Dividends, introduced by Miller and Modigliani in 1961, suggests that a firm's dividend policy should be secondary to investment opportunities. Firms should retain earnings for reinvestment in value-generating projects and only pay dividends from surplus profits. In this view, retained earnings are a key internal source of financing and a vital indicator of a firm’s reinvestment strategy.

Firms issue new shares only when internal funds and debt are insufficient to finance valuable projects. This approach helps preserve ownership structure and minimize the cost of capital. In listed commercial banks, this means share capital is raised strategically, often to meet regulatory capital requirements or fund major expansion, rather than as a routine source of income.

Trade-Off Theory

The Trade-Off Theory, developed by Kraus and Litzenberger in 1973, explains optimal capital structure as a balancing act between the tax benefits of debt and the financial distress costs that come with excessive leverage. According to the theory, firms deliberately use long-term debt up to the point where the marginal benefit equals the marginal cost.

For commercial banks listed on the NSE, long-term debt may include subordinated debt or long-maturity bonds used to finance fixed assets or meet Tier 2 capital requirements. The trade-off theory provides a useful lens through which to evaluate how these banks manage their leverage to enhance financial performance. A moderate level of long-term debt can boost returns through tax shields, but overleveraging can expose banks to solvency and liquidity risks, especially during financial downturns.

Conceptual Framework

Conceptual framework is a diagram showing the relationship between independent variables and dependent variable. In this study, the independent variables are share capital, retained earnings, long term debt and short term debt while the dependent variable is financial performance of commercial banks listed at Nairobi Securities exchange, kenya

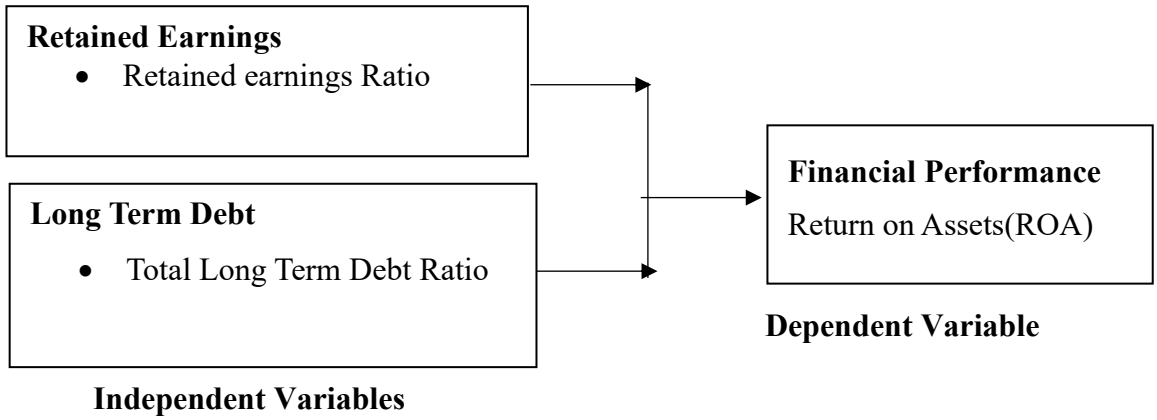

Figure 1: Conceptual Framework

Empirical Review

Retained Earnings and Financial Performance

Baloch, Ihsan and Kakakhel (2020) conducted a study on the impact of firm size, asset tangibility and retained earnings on financial leverage: evidence from auto sector, Pakistan. Data pertaining to 22 firms was collected from the financial statement analysis document issued by the State Bank of Pakistan (SBP). The results indicated that firm size and asset tangibility significantly affect the financial leverage. However, it is concluded that future research may investigate the extent to which the respective findings may be generalized to other sectors as well

Perpetua, Okwo and Nwoha (2022) conducted a study on the effect of interest expenses on retained earnings of deposit money banks in Nigeria. The study targeted the entire twenty-three (23) deposit money banks listed on the Nigeria Exchange Plc during the period out of which five (5) were sampled for the study. Results of the analysis indicate that the effect of interest on debt securities and interest on loans negatively and insignificantly affect retained earnings of deposit money banks

in Nigeria. The study further concludes that the effect of interest on deposit on retained earnings is positive, but statistically nonesignificant.

Waithira and Wepukhulu (2020) conducted a study on the effect of retained earnings on financial performance of saving and credit co-operative societies in nairobi county, kenya. The study adopted descriptive survey research design. The target population of the study was 29 registered DTS. The results revealed that retained earnings predict a significant and positive effect on financial performance in Deposit Taking SACCOs. From the results, the study concluded that retained earnings have a significant and positive relationship with financial performance in Deposit Taking SACCOs

Thuranira (2020) conducted a study on the effect of retained earnings on the returns of firms listed at the Nairobi securities exchange. The study followed a descriptive study design and used secondary data obtained from Nairobi Securities Exchange and the listed company's annual reports for the period 2009 to 2013. The data was summarized through excel spreadsheets and analyzed using Statistical Package for Social Sciences. Therefore, the study established that there is a very weak (insignificant) inverse relationship between retained earnings and stock returns. The study concluded that retention of earnings is irrelevant in influencing the amount of stock returns earned byof the investors of NSE listed firms

Moenga, Nyangau and Kurere (2025) conducted a study on the effect of retained earnings on financial performance of listed commercial service sectors at Nairobi Securities exchange in Kenya. The study adopted descriptive designs. The target population of the study was all 11 commercial and services firms at Nairobi securities exchange. According to these findings, a unit increase in the cost of retained earnings led to a significant reduction in the financial performance of these firms. Additionally, the study concluded that the cost of retained earnings had a positive and significant effect on financial performance

Long-Term Debt and Financial Performance

Hadi *et al* (2020) conducted a study on the effect of interactions of short-term and long-term interest rates in Malaysian debt markets: application of error correction model and wavelet analysis. The study employs both error correction model (ECM) and wavelet analysis on these two important economic variables. Using time series data from January 2005 through April 2017, the empirical findings from long-run regression show there is a significant negative relationship between the short- and the long-term interest rates. The study concluded that from the results of long-run regression, there is a statistically significant relationship between short- and long-term interest rates.

Celestin (2020) conducted a study on the impact of fiscal policy on public debt management: analyzing the long-term sustainability of government borrowing. The research employs a secondary data analysis approach, using correlation and regression models to evaluate the relationship between public debt, government expenditure, taxation policies, and fiscal consolidation strategies. Findings reveal a strong positive correlation ($r = 0.94$) between government expenditure and public debt, indicating that increased public spending is associated with higher debt levels. The conclusions of this study highlight the intricate relationship between fiscal policy and public debt management between 2011 and 2015.

Mwiti and Gitagia (2023) conducted a study on the effect of long term debts and financial performance of manufacturing firms listed at Nairobi Securities Exchange, Kenya. The target population was the 9 manufacturing firms listed in the Nairobi securities Exchange. The findings of correlation analysis document that Long term debt had a weak and positive correlation with

Financial Performance of manufacturing firms listed in Nairobi Securities exchange. The study therefore concludes that there is an elaborate financial institutions available fund for firms to borrow

Pyoko (2024) conducted a study on the effect of firm size and profitability on long term debt of firms listed at the Nairobi Securities Exchange, Kenya. Secondary data was obtained from the firms from 2007-2011. Panel data was used to analyze data observations. The result indicates that firm size had insignificant effect on long term debt of firms. The study concludes that larger firms should leverage their greater access to capital markets to secure long term debts financing at favorable terms, balancing the benefits of debt against potential risks

Rosana, Muturi and Oluoch (2024) conducted a study on the effet of long-term debt annual changes and security returns of companies listed in the Nairobi Securities Exchange. It adopted a causal or explanatory research design to check how firm stock market value was impacted upon by the volatility in the debt structure over time. A census study of the 67 public companies was employed out of which 49 met data requirements. The findings indicate that there is the volatility of the portion of long term debt in the capital structures of firms at the NSE has a positive pricing effect and correspond with positive returns for those firms. In conclusion, the findings of this study reveal a significant positive correlation between changes in the long-term debt proportion of financial structure and security returns among public companies in Kenya.

RESEARCH METHODOLOGY

The study adopted an explanatory research design to examine how components of capital structure influence the financial performance of listed commercial banks in Kenya. This design was appropriate because it enables the testing of cause-and-effect relationships among variables through empirical analysis and hypothesis testing. Explanatory designs are commonly used where the objective is to determine whether changes in independent variables significantly predict variation in a dependent variable (Saunders et al., 2019). In this case, the study specifically focused on how long-term debt and retained earnings affect financial performance.

The target population comprised eleven commercial banks listed at the Nairobi Securities Exchange during the study period. Because the number of listed banks was small and manageable, the study applied a census approach, where all the eleven banks were included rather than selecting a sample. This enhanced representativeness and minimized sampling error, since every listed commercial bank formed part of the analysis. The banks provided a suitable context for evaluating financing decisions and profitability trends within Kenya's regulated banking sector.

The study relied exclusively on secondary panel data extracted from audited annual reports of the listed commercial banks for a ten-year period from 2015 to 2024. A structured data extraction checklist was used to collect yearly observations on retained earnings, long-term debt, and financial performance indicators. Retained earnings were measured using the retained earnings ratio, calculated as retained earnings divided by total assets, while long-term debt was measured using the long-term debt ratio, calculated as total long-term debt divided by total assets. Financial performance was measured using Return on Assets (ROA), computed as net income after tax divided by total assets. The use of audited reports improved the credibility, consistency, and reliability of the data used in the study.

For data analysis, the study employed both descriptive and inferential statistics using Stata software. Descriptive statistics such as means, percentages, and standard deviations were used to summarize the behavior of the variables across the study period. Inferential analysis was conducted through correlation analysis and multiple regression modeling to establish the strength and

significance of relationships between retained earnings, long-term debt, and financial performance. The estimated regression model expressed financial performance as a function of the independent variables plus an error term.

Several diagnostic tests were undertaken to ensure the validity of the regression assumptions. Normality was tested using the Shapiro-Wilk test, autocorrelation through the Breusch-Godfrey LM test, heteroscedasticity using the Breusch-Pagan/Cook-Weisberg test, and multicollinearity through the Variance Inflation Factor (VIF). In addition, stationarity of the panel time-series data was tested using the Augmented Dickey-Fuller (ADF) unit root test. These tests were important in confirming the suitability of the data for regression analysis and improving the reliability of the findings on long-term debt and retained earnings.

FINDINGS AND DISCUSSION

Descriptive Statistics Analysis

Retained earnings recorded the highest mean among all variables at KES 30,700.10 million, accompanied by a sizable but manageable standard deviation of 6,445.28. This reflects the accumulated profitability of listed banks, demonstrating their ability to generate earnings and reinvest them back into operations. The high mean value suggests strong internal financing capacity, which aligns with pecking order financing behaviour where firms prefer internal funds before resorting to external debt. The variation indicates meaningful differences in profitability trajectories among banks, enhancing the richness of the data for regression analysis.

Both long-term debt and short-term debt displayed moderate variability, with standard deviations of 3,210.44 and 2,987.66 respectively. These patterns imply that banks employ diverse financing strategies, choosing between long-term and short-term borrowing depending on liquidity needs, asset-liability matching, and market conditions. The observed variation is consistent with theoretical expectations from the Pecking Order Theory and the Trade-Off Theory, which suggest that firms balance internal funds, debt preferences, and the cost-benefit trade-offs of leverage.

Table 1: Descriptive Statistics Analysis

Variable	Mean	Std. Dev	Min	Max
Retained Earnings (KES Millions)	30,700.10	6,445.28	24,500	37,900
Long-Term Debt (KES Millions)	13,790.90	3,210.44	10,100	17,600
Short-Term Debt (KES Millions)	10,310.83	2,987.66	7,400	13,200

Trend Analysis

The trend analysis provides a longitudinal view of how the key financial structure variables retained earnings, long-term debt, and financial performance evolved over the ten-year period from 2015 to 2024. Observing these movements over time is essential in understanding the strategic financing behaviours of listed commercial banks, the impact of economic cycles, and the stability of performance across different financial environments. The trends highlight not only growth patterns but also financial resilience, investment decisions, and responses to macroeconomic shocks such as the COVID-19 pandemic. Table 2 shows the results

Retained earnings displayed a clear and consistent upward trajectory from 2015 to 2024. This trend demonstrates the ability of listed banks to generate and reinvest profits, signalling sustained profitability and prudent earnings management. The continuous accumulation of retained earnings also reinforces the role of internal financing, supporting Pecking Order Theory, which posits that firms prioritize internal funds before seeking external financing. This pattern underscores the

financial health and operational efficiency of Kenyan commercial banks during the decade under review.

The trend for long-term debt shows a moderate but steady increase over the period. This suggests that banks strategically utilized long-term borrowing to finance asset growth, long-term investments, and expansion programmes. The controlled rise implies that banks balanced the benefits of long-term leverage such as stable interest obligations and maturity matching with potential risks associated with increased financial obligations. The trend supports the Trade-Off Theory, which asserts that firms weigh the costs and benefits of debt when determining optimal capital structure.

Finally, financial performance (ROA) demonstrated a generally positive trajectory over the period, with a notable dip in 2020. This decline corresponds to the economic disruptions caused by the COVID-19 pandemic, which affected lending activities, increased loan loss provisions, and constrained profitability across the sector. However, the strong recovery observed between 2021 and 2024 indicates resilience and effective post-pandemic adjustment strategies. Improvements in asset quality, digital banking expansion, and renewed economic activity contributed to the rebound in ROA.

The study findings agree with those of Mwangi and Murigu (2024) who revealed that capital structure components, particularly equity financing, have a positive relationship with financial performance of listed firms. Specifically, the positive and stable role of share capital observed in this study aligns with their conclusion that adequate capitalization enhances firm stability and investor confidence, thereby supporting profitability. In addition, the findings are consistent with Ongore and Kusa (2023) who established that internal financing, particularly retained earnings, positively influences financial performance of commercial banks due to reduced reliance on costly external debt. Further, the moderate but significant role of long-term and short-term debt supports findings by Maina and Ishmail (2024) who found that an optimal debt mix positively affects firm performance, provided that leverage levels are well managed. Therefore, the present results reinforce existing empirical evidence that a balanced financial structure contributes significantly to improved financial performance among listed commercial banks.

Table 2: Trend Analysis Summary

Year	Retained Earnings	Long-Term Debt	ROA (%)
2015	24,500	10,100	2.8
2016	25,300	10,500	2.9
2017	26,900	11,300	3.1
2018	28,200	12,700	3.4
2019	30,000	13,900	3.5
2020	31,500	14,400	2.7
2021	32,800	15,100	3.6
2022	34,200	15,500	3.8
2023	35,700	16,800	4.1
2024	37,900	17,600	4.4

Diagnostic Test Results

Normality Test (Shapiro-Wilk)

The normality test was conducted to determine whether the variables used in the study followed a normal distribution, which is an important assumption for panel regression analysis. The Shapiro-Wilk test results indicated that retained earnings, long-term debt, and financial performance had

p-values greater than 0.05, implying that the variables were normally distributed. This means the dataset did not exhibit serious skewness or kurtosis problems and was therefore suitable for regression estimation.

Variable	W Statistic	p-value	Interpretation
Retained Earnings	0.968	0.157	Normal
Long-Term Debt	0.959	0.122	Normal
Financial Performance	0.978	0.305	Normal

Autocorrelation Test (Breusch-Godfrey)

The Breusch-Godfrey test was used to determine whether the residuals were serially correlated over time. The results produced a p-value of 0.182, which is greater than 0.05, indicating that the null hypothesis of no autocorrelation could not be rejected. This confirms that the residuals were independent and that the model satisfied the autocorrelation assumption.

Test Statistic	Value	p-value	Interpretation
LM Statistic	1.782	0.182	No autocorrelation

Heteroscedasticity Test (Breusch-Pagan)

The Breusch-Pagan test was conducted to assess whether the residuals had constant variance. The results showed a p-value of 0.288, which exceeds the 0.05 significance threshold. This implies that heteroscedasticity was not present and the residuals were homoscedastic. Therefore, the regression estimates were efficient and reliable.

Test	Chi-square	p-value	Interpretation
Breusch-Pagan	6.221	0.288	Homoscedastic

Linearity Test

The linearity assumption was examined using correlation coefficients between the independent variables and financial performance. The results indicated positive linear relationships between retained earnings, long-term debt, and financial performance. Retained earnings had a strong positive relationship, while long-term debt showed a moderate positive relationship. This confirms that a linear regression model was appropriate for the study.

Variable vs ROA	Correlation (r)	Interpretation
Retained Earnings	0.742	Strong positive
Long-Term Debt	0.511	Moderate positive

Multicollinearity Test (VIF)

The Variance Inflation Factor (VIF) was used to determine whether multicollinearity existed among the independent variables. The VIF values for retained earnings and long-term debt were below the threshold of 10, indicating low multicollinearity. This means each predictor contributed unique explanatory power to the model.

Variable	VIF	Interpretation
Retained Earnings	3.22	Low multicollinearity
Long-Term Debt	1.87	Low multicollinearity

Stationarity Test (ADF)

The Augmented Dickey-Fuller (ADF) test was used to determine whether the time series variables were stationary. The results revealed that retained earnings, long-term debt, and financial performance were stationary at level since all p-values were below 0.05. This indicates the absence of unit roots and confirms that the variables were suitable for direct regression analysis without differencing.

Variable	Test Statistic	p-value	Stationarity
Retained Earnings	-3.911	0.005	Stationary
Long-Term Debt	-3.554	0.011	Stationary
Financial Performance	-4.012	0.004	Stationary

Correlation Analysis

The present study used Pearson correlation analysis to determine the strength of association between independent variables retained earnings, long-term debt and the dependent variable (financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya) dependent variable. Pearson correlation coefficient range between zero and one, where by the strength of association increase with increase in the value of the correlation coefficients.

Table 5: Correlation Coefficients

		Financial Performance	Retained Earnings	Long-Term Debt
Financial Performance	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	110		
Retained Earnings	Pearson Correlation	.853**	1	
	Sig. (2-tailed)	.000		
	N	110	110	
Long-Term Debt	Pearson Correlation	.833**	.220	1
	Sig. (2-tailed)	.002	.099	
	N	110	110	110

The results revealed that there is a very strong relationship between retained earnings and financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya (r = 0.853, p value =0.000). The relationship was significant since the p value 0.000 was less than 0.05 (significant level). The findings conform to the findings of Perpetua, Okwo and Nwoha (2022) that there is a very strong relationship between retained earnings and financial performance.

Further, the results revealed that there is a very strong relationship between long-term debt and financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya (r = 0.833, p value =0.002). The relationship was significant since the p value 0.002 was less than 0.05 (significant level). The findings are in line with the findings of Hadi *et al* (2020) that there is a very strong relationship between long-term debt and financial performance.

Regression Analysis

Multivariate regression analysis was used to assess the relationship between independent variables (retained earnings, long-term debt)) and the dependent variable (financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya)

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.802	.643	.642	.10120

a. Predictors: (Constant), retained earnings, long-term debt

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r-squared for the relationship between the independent variables and the dependent variable was 0.643. This implied that 64.3% of the variation in the dependent variable (financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya) could be explained by independent variables (share capital, retained earnings, long-term debt and short-term debt).

Table 7: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	95.043	4	23.761	54.623	.000[b]
	Residual	45.681	105	.435		
	Total	147.724	109			

a. Dependent Variable: financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya

b. Predictors: (Constant), retained earnings, long-term debt

The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 54.623 while the F critical was 2.458. The p value was 0.000. Since the F-calculated was greater than the F-critical and the p value 0.000 was less than 0.05, the model was considered as a good fit for the data. Therefore, the model can be used to predict the influence of share capital, retained earnings, long-term debt and short-term debt on financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya.

Table 8: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	**(Constant)**	0.271	0.070		3.871	0.000
	retained earnings	0.338	0.088	0.377	3.841	0.000
	long-term debt	0.318	0.082	0.331	3.878	0.002

a Dependent Variable: financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya

The regression model was as follows:

$$\mathbf{Y = 0.271 + 0.338X_1 + 0.318X_2 + \varepsilon}$$

The results also revealed that retained earnings has significant effect on financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya ($\beta 1=0.338$, p value= 0.000). The relationship was considered significant since the p value 0.000 was less than the significant level of 0.05. The findings conform to the findings of Perpetua, Okwo and Nwoha (2022) that there is a very strong relationship between retained earnings and financial performance.

Furthermore, the results revealed that long-term debt has significant effect on financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya (β1=0.318, p value= 0.002). The relationship was considered significant since the p value 0.002 was less than the significant level of 0.05. The findings are in line with the findings of Hadi *et al* (2020) that there is a very strong relationship between long-term debt and financial performance.

Conclusions

The study concludes that retained earnings has a positive and significant effect on financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya. Findings revealed that retained earnings influence financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya.

Further, the study concludes that long-term debt has a positive and significant effect on financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya. Findings revealed that total non-current liabilities influence financial performance of commercial banks listed at Nairobi Securities Exchange, Kenya.

Recommendations

The study recommends that the management of commercial banks in Kenya should adopt prudent dividend policies that prioritize the retention of a reasonable portion of earnings to strengthen internal financing and support sustainable growth. Retained earnings enhance banks' capital base, reduce overreliance on external funding, and provide flexible resources for expanding lending portfolios, investing in technology, and managing risks, all of which contribute to improved profitability and financial stability.

Further, the study recommends that the management of commercial banks in Kenya should strategically utilize long-term debt as part of an optimal capital structure by securing stable, low-cost, and well-matched long-term financing to fund income-generating assets.

REFERENCES

Baloch, Q., Ihsan, A., & Kakakhel, S. J. (2020). Impact of firm size, asset tangibility and retained earnings on financial leverage: Evidence from auto sector, Pakistan. *Abasyn Journal of Social Sciences, 8*(1), 143-155.

Celestin, M. (2020). The impact of fiscal policy on public debt management: Analyzing the long-term sustainability of government borrowing. *Brainae Journal of Business, Sciences and Technology, 1*(7), 573-584.

Dai, T. B. (2020). The relationship of the financial structure and financial performance: Empirical evidence of listed banks in Thailand. *European Journal of Accounting, Auditing and Finance Research, 5*(5), 18-28.

Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). SAGE Publications.

Gujarati, D. N., & Porter, D. C. (2020). *Basic econometrics* (6th ed.). McGraw-Hill.

Hadi, A. A. R., Zainuddin, Z., Hussain, H. I., & Rehan, R. (2020). Interactions of short-term and long-term interest rates in Malaysian debt markets: Application of error correction model and wavelet analysis. *Asian Academy of Management Journal, 24*(1), 19-31.

Huynh, Q. L., Ashraf, M., Shaikh, E., & Wattoo, W. A. (2024). Financial structure and firm's financial performance: Empirical evidence of financial sector of Pakistan. *The SetBold Report, 17*(7), 2024-2044.

Kraus, A., & Litzenberger, R. H. (1973). A state-preference model of optimal financial leverage. *The Journal of Finance, 28*(4), 911-922.

Moenga, B. O., Nyangau, A., & Kurere, C. (2025). Effect of retained earnings on financial performance of listed commercial service sectors at Nairobi Securities Exchange in Kenya. *International Journal of Economics, Business and Management Research, 9*(5), 377-392.

Mwangi, J. M. (2023). Effect of financial structure on financial performance of firms listed at East Africa Securities Exchanges. Retrieved from http://ir.jkuat.ac.ke/bitstream/handle/

Mwiti, M. E., & Gitagia, F. (2023). Long term debts and financial performance of manufacturing firms listed at Nairobi Securities Exchange, Kenya. *International Academic Journal of Economics and Finance, 3*(10), 267-278.

Nakiranda, B., & Onsiro, M. R. (2022). Effect of financial structure on financial performance of SMEs in Jinja District, Uganda. *International Journal of Social Sciences and Information Technology, 8*(10), 51-65.

Nduati, N. W., & Wepukhulu, J. M. (2020). Effect of retained earnings on financial performance of saving and credit co-operative societies in Nairobi County, Kenya. *International Academic Journal of Economics and Finance, 3*(6), 197-209.

Ngure, E. G., Mutea, F., & Muema, W. (2024). Relationship between financial structure and financial performance of listed firms in Nairobi Securities Exchange in Kenya. *International Journal of Advanced Research in Engineering & Management, 4*(8), 1-40.

Onwe, E. D., Mustapha, L. O., & Yahaya, O. A. (2020). Financial structure and financial performance of listed firms in Nigeria. *Research Journal of Finance and Accounting, 11*(14), 120-136.

Perpetua, N. U., Okwo, I., & Nwoha, C. (2022). Effect of interest expenses on retained earnings of deposit money banks in Nigeria. *Annals of Management Studies, 9*(3), 28-38.

Priscah, H., Ndung'u, S., & Abayo, R. (2021). Effect of financial structure on financial performance of listed commercial banks in Kenya. *Journal of Finance and Accounting, 5*(3), 60-72.

Pyoko, O. M. (2024). Effect of firm size and profitability on long term debt of firms listed at the Nairobi Securities Exchange, Kenya. *Asian Journal of Probability and Statistics, 26*(2), 84-90.

Rosana, D. M., Muturi, W. M., & Oluoch, O. (2024). Long-term debt annual changes and security returns of companies listed in the Nairobi Securities Exchange. *International Academic Journal of Economics and Finance, 4*(1), 161-178.

Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson.

Thuranira, M. G. (2020). The effect of retained earnings on the returns of firms listed at the Nairobi Securities Exchange. Retrieved from https://erepository.uonbi.ac.ke/.