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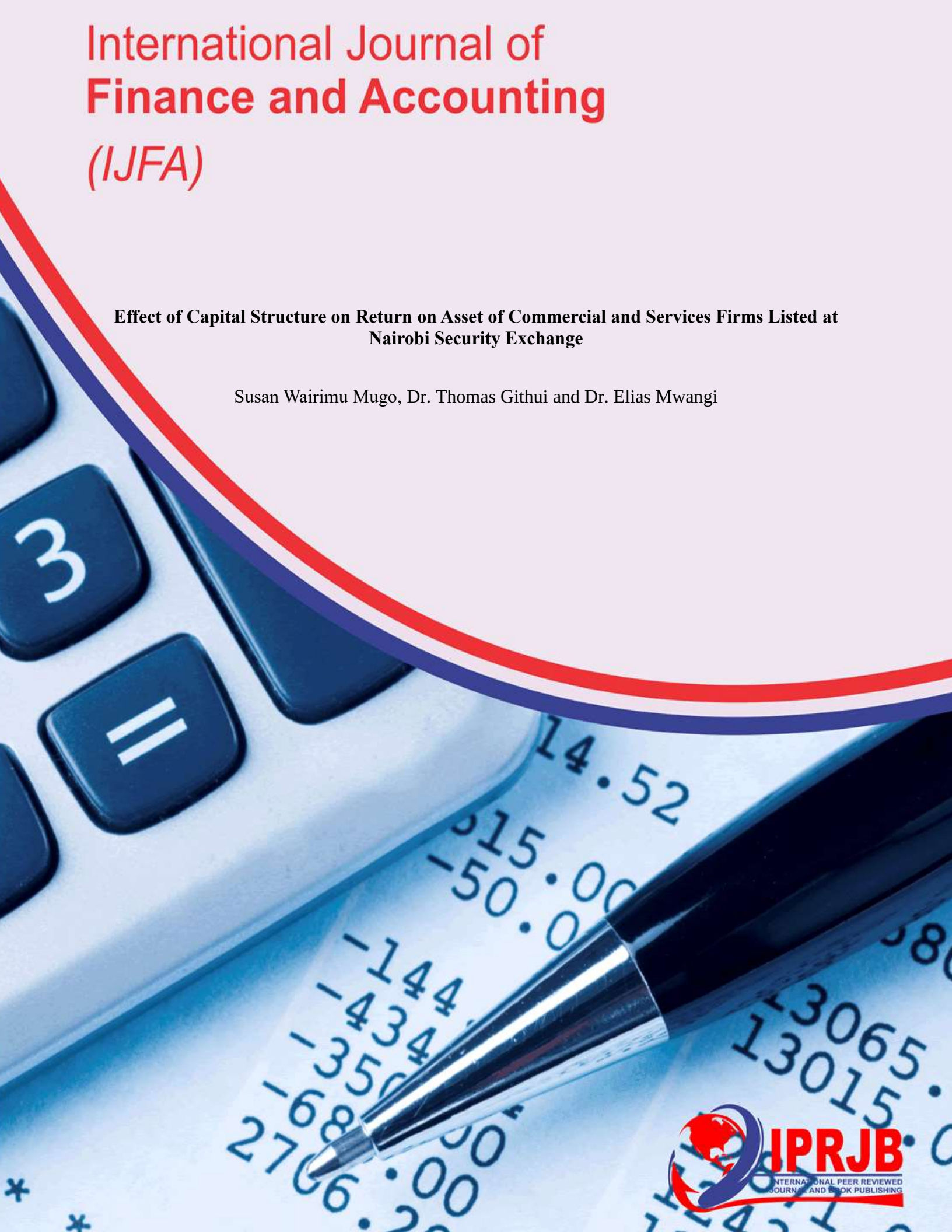

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Effect of Capital Structure on Return on Asset of Commercial and Services Firms Listed at Nairobi Security Exchange

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Abstract

Purpose: Reviewing what conditions influence how much capital little list companies raise is the basis for capital structure research. It researcher intended to understand how the structure of capital affects the Return on Assets of listed Commercial and Services Firms in Kenya during the years 2020–2024. The investigation had set aims which included observing how retained earnings, share capital, debt and equity play a part in establishing the capital structure and to use ROA as the main gauge of financial results.

Methodology: Data from audited financial statements from Commercial and Services Firms listed at Nairobi Security Exchange, instructions from the Capital Market Authority handbook, magazines, business journals, articles and websites was the secondary information used. Descriptive research was the method and statistical methods such as data analysis, correlation analysis and multiple regression analysis were used to look at the data. All Commercial and Services Companies listed on the Nairobi Security Exchange made up the population. For the research, the sample used were all organizations that were entered by the employees.

Findings: It was found, that not all the companies supplied the data required for public access. Two other companies stopped running their operations for the time it took to collect the data. Retained earnings, share capital and return on asset all appear to be related for the Commercial and Services Firms listed at NSE, Kenya. When if rises, return on assets declines and this trend is significant for Commercial and Service Firms on the NSE, Kenya. Also, at NSE, Kenya, equitable companies in Commercial and Service Firms don't have a statistically significant impact on their return on assets.

Unique Contribution to Theory, Practice and Policy: The study recommended that a holistic approach to capital structure can enhance firm profitability and financial sustainability. Moreover, aligning policy frameworks, corporate financial practices, and theoretical models with these findings will enable stakeholders to make more informed decisions that foster long-term value creation within Kenya's Commercial and Service Sectors.

Keywords: *Capital Structure, Nairobi Securities Exchange, Return on Asset*

JEL CODES: *G32, G14, G39*

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INTRODUCTION

Companies capitalize on stakeholder's worth by decreasing the total cost of capital and increasing the market worth of stocks (Onsongo et al., 2020). One way to reduce the cost of capital is to fund the firm's wealth through an ideal blend of liability and working capital (Shaik et al., 2022). Businesses frequently obtain capital from a variety of sources, including borrowing from banks and credit unions, issuing bonds, and so on (Hoa & Huong, 2020). Capital structure therefore, refers to the alignment of a firm's capital in terms of debt and equity and is commonly measured using debt-to-equity or debt-to-total asset ratios (Habibniya et al., 2022).

In organizations, ROA is not only a measure of profitability but also a performance indicator that assists stakeholders who include managers, investors, and creditors in assessing operational efficiency and strategic decision-making. It is calculated by dividing net income by total assets, often expressed as a percentage, and reflects the organization's ability to convert resources into earnings (Brigham & Ehrhardt, 2022). A higher ROA indicates greater efficiency, as it shows that the company is producing more profit per unit of asset invested.

Nairobi Securities Exchange is an administrative body that is charged with the responsibility of guaranteeing organizations consent to corporate control and administration rules that are set up. Most of the companies at Nairobi Securities Exchange listed under Commercial and Service segments are service companies. The NSE accord Kenyans an opportunity to possess shares through empowering organizations to take part in nearby interest in their assets. In addition, Nairobi Securities Exchange assist as far as International Capital Inflow is concerned (NSE, 2020).

Many investigations on financing capital structure and business performance have been completed. For example, In Europe, Ahmed and Bhuyan (2020) study on Australian Firms showed that Debts takes over the capital choices of Australian Service Sector. In Africa, Boussiki (2023) study on capital composition concluded that Algerian Firm should rely more on internal sources to fund its various ventures. In Kenya, Yugi and Wekesa (2023) while focusing on capital financing among manufacturing Firm in Coast region, suggested that proper mix of long-term debt and short-term debt should be strongly preferred. In addition, Nyaga et al. (2022) indicated that increase in debt capital leads to increase to firm's profit. As the background section and various experts highlighted, this research took all the important parts of capital structure into account which were retained earnings, share capital, debt and equity. They determine the main areas of research and results in this work.

Problem Statement

Financial directors are liable for funding choices including accountability of the Company financing structure, but unfortunately capital formulation decision can yield financial loss. Even though a small number of the Firms working in the Commercial and Service category at the Nairobi Security Exchange revealed good business performance, others registered a decline in profitability. Kenyan commercial and service companies listed on the Nairobi Securities Exchange report an average Return on Assets (ROA) of approximately 9.20%, indicating that for every Kenyan shilling invested in assets, firms generated about KSh 0.092 in earnings (Wanzala & Obokoh, 2024).

While seemingly healthy, this ROA is eroded by inefficiencies in working capital management: for example, longer average inventory age, collection periods, payment cycles, and extended cash conversion cycles all correlate significantly with reduced ROA. Specifically, a 1% increase in the average collection period corresponds to a 0.15% decline in ROA, while a 1% increase in cash conversion cycle reduces ROA by about 0.32%—all statistically significant (Wanzala & Obokoh, 2024). According to NSE hand book (2020) 33% of the Commercial and Services Firms recorded losses. Firm under this category which has been on the spotlight include Uchumi supermarket, Kenya Airways, Eveready East Africa and Express Ltd (Onsongo et al., 2020).

Previous studies have highlighted the importance of maintaining a balanced capital structure, emphasizing the need to limit debt and prioritize internal financing to enhance firm performance (Boshinak, 2023). However, most of these studies have focused on other sectors such as microfinance institutions (MFIs), non-financial companies, and the banking industry (Odero & Mutswenje, 2021), leaving limited insights into commercial and service firms in Kenya. The few studies conducted on this sector, such as Lein (2023), relied on secondary data up to 2021, which may not adequately capture recent economic shifts and market dynamics. This gap underscores the need for a current study to investigate how capital structure affects return on assets (ROA) among commercial and service firms in Kenya, using updated data from 2020 to 2024 to provide relevant and timely findings.

Theoretical Framework

This study was underpinned by five Capital financing proposition which are Modigliani and miller proposition, Trade off proposition, Pecking Order proposition, and Agency proposition theory. The models act as a base for understanding how the financial structure of firms listed on the NSE affects their return on assets (ROA).

In their original proposal, Modigliani and Miller wrote (1958) that in a perfect market without taxes, bankruptcy fees or information gaps, capital structure makes no difference to a firm's total value. But in their revised proposal (1963), they mentioned that corporate taxes count and that deducting interest from debt financing increases firm value. This theory holds that taking on more debt might be good for business financial results, as measured by ROA, for companies that are taxed, because it can actually cost less, on average, to finance investment projects (Ezirim, Ezirim & Momodu, 2020).

Trade off theory originated from Kraus and Litzenberger (1973), who said firms compare how much debt tax benefits them with the danger of facing financial trouble. The Trade-Off Theory suggests that companies look for the best balance by weighing the benefits of debt (like tax deductions) against the risks of insolvency. The influence of debt on ROA increases as the firm moves closer to its optimal capital structure. ROA may be hurt due to excessive debt, because of the higher costs and risks linked to it.

The third theory used is Pecking Order Theory, first presented by Myers and Majluf (1984) which says that companies select ways to finance their investments in order of importance. This approach points out that internal funds, mainly held in retained earnings, largely affect a company's return on assets (ROA). Firms mainly using retained earnings could have stronger finances because it avoids some of the charges and dangers linked to outside borrowing.

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Agency theory by (Berle & Means, 1932) is the fourth theory this study relies on. Agency Theory studies the disagreements that can happen between a company's managers (agents) and its shareholders (principals). It proposes that managers are kept financially disciplined by debt obligations which can lower the likelihood of agency problems. This theory underlines that decisions related to capital structure influence a firm's operational efficiency and, in turn, affect its return on assets (ROA), as they shape managerial actions and control mechanisms.

Collectively, these theories provide diverse viewpoints on how a firm's financing choices specifically the balance between debt, equity, retained earnings, and share capital can influence its profitability and efficiency in asset utilization, as reflected by return on assets (ROA). This study applies these theoretical frameworks to examine which capital structure combination yield the best financial outcomes for Commercial and Services Firms listed on the NSE.

Conceptual Framework

A conceptual framework outlines the relationship between variables in the study. It provides a visual and theoretical structure showing how the independent variables (capital structure components) are expected to influence the dependent variable (ROA). According to this study, the variable which constitutes capital structure consists of retained earnings, share capital, debt and equity. To measure financial performance, the ROA was used as the dependent variable.

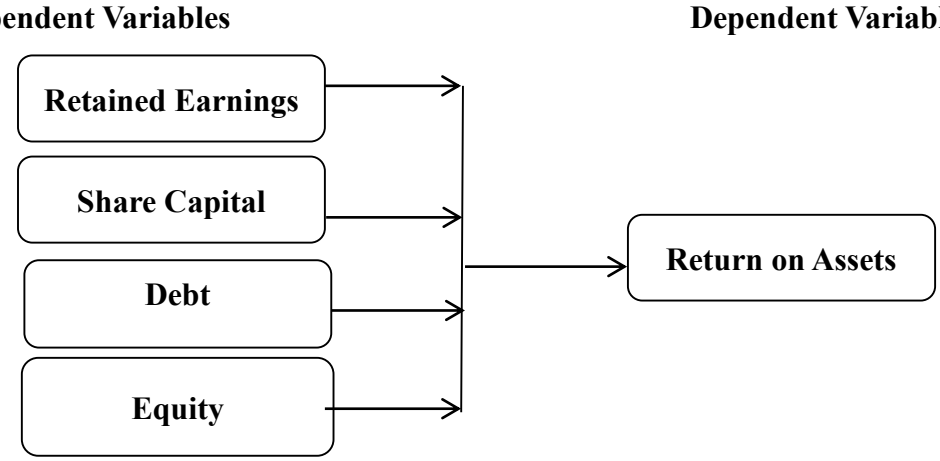

Figure 1: Conceptual Framework

The conceptual framework suggests that a firm's capital structure particularly the ratios of debt, equity, retained earnings, and share capital directly influences its return on assets (ROA). ROA is used as the primary indicator of how effectively a company uses its assets to generate earnings. This study assessed whether certain combinations of financing sources resulted in stronger or weaker financial performance among commercial and services firms listed on the NSE.

Empirical Review

The study done by Dahmash, Alshurafat, Hendawi, Alzoubi and Al Amosh (2023) examined how much the firm's market value was influenced by the retention per share along with the dividend per share in Jordan. The pooled sample outcome indicated that dividends per share strongly and

significantly help returns. But when looking at retention per share, it showed a major and negative effect on the Firm's Market Value. The other robustness analysis for separation by sub-sample and by financial and non-financial characteristics showed the same pattern as the pooled sample, for the main variables. However, the study did not isolate the impact of retained earnings on Return on Assets (ROA), nor did it explore the role of other capital structure components such as share capital, debt, or equity in influencing ROA. Additionally, the study was conducted in the Jordanian context, which may limit its applicability to firms operating within the Kenyan financial and regulatory environment.

Share capital was investigated by Wanyonyi, Fwamba and Wanyama (2024) for the effect that it has on financial results in Savings and Credit Cooperative Societies (SACCOs) in Western Kenya. To collect data, the researchers applied a descriptive survey design to talk with 159 people who are members of the SACCOs. There is a strong and positive relationship found between share capital and financial performance in the data and share capital is responsible for about 5.2% of the variation in SACCOs' financial results. Things that guide the growth of share capital are strong communication, attractive interest rates and member participation in how the credit union is run. The study points out that some members are not well-educated about money and this makes their credit unions compete with other financial institutions. For this reason, it was suggested that improving Share capital management requires more member education, greater use of technology for communication and better cooperation among SACCOs. However, the study focused exclusively on SACCOs and did not examine listed commercial and services firms, which operate under different financial structures, regulatory frameworks, and market dynamics.

A study done by Manyanga, Kanyepe, Chikaze and Manyanga (2023) studied the influence of debt financing on the performance of SMEs in Zimbabwe. A positivist philosophy was used and the research was conducted using a cross-sectional survey approach. A questionnaire that used Likert responses was given to 210 SMEs and the gathered data was quantitative. The research shows that companies in emerging markets that use debt financing (in short-term, long-term and trade credit forms) tend to perform better financially. However, the study focused exclusively on SMEs, which differ significantly from publicly listed commercial and services firms in terms of scale, governance, and access to capital markets.

Sulaiman and Khalid (2024) looked into how agricultural firms that are publicly listed in Nigeria performed financially between 2023 and 2022, based on their equity capital. In the study, Ordinary Shares, Preference Shares and Retained Earnings were the indicators for equity capital and ROA was used to show financial performance. To keep firm size even across all cases, it was used as a control variable. Since the research was done after the events, ex-post facto was used and the data were analyzed with a Heteroscedasticity-Corrected Regression model. There was evidence that the Ordinary Shares and Preference Shares had a big negative effect on the financial performance of the companies and the influence of Retained Earnings was smaller and not statistically different from zero. However, the study focused solely on agricultural firms, which may not reflect the financial dynamics of commercial and services firms listed at the Nairobi Securities Exchange (NSE). Additionally, while ROA was used as a performance metric, the study did not disaggregate the effects of equity components such as share capital and retained earnings, on ROA independently.

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METHODOLOGY

The positivist philosophy was followed, making it ideal for researching the link between capital structure and ROA among commercial and services firms listed with the NSE. The research followed a descriptive research design. The study selected Commercial and Services Firms listed on the NSE as the population. Besides, this population was formed more than five years ago (from 2020 to 2024). The NSE had a large-scale of Commercial and Service Companies, totaling 11. Since only the 11 selected Companies provided information, a census sampling method was used in the study. From the 11, only 8 participated in the study as two stopped operating and one did not have complete set of statistic publicly available for review. Secondary data was used in the study. The secondary data was obtained from audited financial reports which was obtained from Corporation websites, CMA and NSE handbook between 2020 and 2024. Central tendency measures (means and standard deviation) was employed to better understand the sample data. This study used descriptive analysis to give a clear summary of all the collected data. Correlation analysis was thus used to give an early indication of the presence of an association. Multiple linear regression model analysis was used to examine the association between capital structure variables and the financial performance of the firm among the Commercial and Service Firms. The regression analytical model was;

$$Y = \alpha_0 + \beta_1 RE + \beta_2 SC + \beta_3 DT + \beta_4 EQ + e$$

RESULTS

Descriptive Statistics

Measures such as the mean and standard deviation helped to add value to the presentation of sample data by using descriptive statistics. Authors of descriptive often display the range of the data which is the difference between the minimum and maximum value. You will find the results of the descriptive statistics in Table 1.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	8	-3.96	7.07	.1335	3.71256
Retained Earnings	8	-1372.18	138444.00	18462.3785	48572.67872
Share Capital	8	182.00	5820.00	1164.5345	1919.42772
Total Debt	8	62.77	255800.00	33037.5230	90016.36742
Total Equity	8	284.20	138444.00	19680.1528	48080.00343
Valid N (list wise)	8				

The average ROA is very close to zero (0.1335%), suggesting that on average, the firms in the sample are barely generating returns on their assets. However, the relatively large standard deviation (3.71) compared to the mean implies substantial variability among the firms: some are performing quite well (up to 7.07%) while others are deeply in the red (down to -3.96%). This wide range could point to differences in management efficiency, capital structure, or industry conditions among the sampled firms.

For the retained earnings, the high mean and very large standard deviation suggest that retained earnings vary widely across firms. One firm has a large negative balance (possibly accumulated

losses or dividends exceeding profits), while another has retained over 138 billion in earnings. The standard deviation is more than double the mean, indicating a high level of dispersion. This wide spread could reflect differences in firm age, profitability history, or dividend policies.

On average, firms in the sample have about KES 1.16 billion in share capital, but again, there's significant variation, as the standard deviation (1.9 billion) exceeds the mean. The large difference between the minimum and maximum suggests that the sample included both small and large firms in terms of equity financing, which may influence their operational scale and risk tolerance.

This variable shows extreme dispersion, with the maximum value (KES 255.8 billion) dwarfing the minimum. The mean debt level is about KES 33 billion, but the very high standard deviation (KES 90 billion) indicates that some firms are highly leveraged, while others carry minimal debt. This disparity in debt levels can greatly impact their risk profile and ROA, as seen in the regression results where debt had a negative influence.

The average equity value is about KES 19.68 billion, but again, the standard deviation is very high, reflecting a wide distribution among the firms. One firm has equity exceeding KES 138 billion, suggesting a dominant outlier in the dataset, possibly a very large company. This level of variability in equity reinforces the importance of evaluating equity in conjunction with performance metrics like ROA, rather than in isolation.

Correlation Analysis

Correlation analysis uses statistics to see whether and how two or more variables are related. In research, it makes it clear if and how much, there is a relationship between variables. A correlation analysis usually produces a correlation coefficient (e.g., Pearson's r) and this score ranges from -1 to +1. A high positive score closes to +1 shows a close positive relationship, a high negative score closes to -1 means there is a strong negative relationship and a value around 0 implies no linear association. Correlation analysis was used here to help see if changes in retained earnings or share capital are related to returns on assets during the studied period (Cohen et al., 2018). It gave a base for applying regression and other related inferential methods. Details of the correlation analysis are given in Table 2.

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Table 2: Correlation Results

		Retained Earnings	Share Capital	Total Debt	Total Equity	Return on Assets
Retained Earnings	Pearson Correlation	1				
	Sig. (2-tailed)					
Share Capital	Pearson Correlation	.149	1			
	Sig. (2-tailed)	.725				
Total Debt	Pearson Correlation	-.250	.148	1		
	Sig. (2-tailed)	.550	.727			
Total Equity	Pearson Correlation	-.192	.148	.793*	1	
	Sig. (2-tailed)	.648	.727	.019		
Return on Assets	Pearson Correlation	-.219	.511	.743*	.905**	1
	Sig. (2-tailed)	.006	.019	.035	.002	
	N	8	8	8	8	8

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

There is a strong line of connection between the ROA and Total Equity (r = 0.905, p = 0.002) which means that better profit from assets is generally seen in companies with higher equity. This finding agrees with Fosu's research (2019), where he showed that companies funded with equity have stronger asset and profit performance, mainly in sectors requiring much capital. In the same way, according to Nguyen and Nguyen (2020), when shareholder equity increases, it not only helps the company financially but also improves ROA by reducing the cost of finding money from outside the company.

ROA and Debt are in fact strongly and positively related (r = 0.743 and p = 0.035). It backs up the trade-off theory which holds that using debt properly can benefit a company's performance. According to Ali and Anwar (2020), when debt is used successfully in developing economies for expanding and running a business, firms can improve their profitability. Even so, both Total Debt and Total Equity are highly correlated in the present data which means multicollinearity could obscure the precise impact of each variable on ROA.

The moderate and significant correlation between ROA and Share Capital (r = 0.511, p = 0.019) reinforces the idea that equity financing contributes positively to firm performance. According to Musyoka and Muturi (2019), companies with larger share capital tend to have better access to investment opportunities, which in turn leads to higher asset returns. This is especially evident in small and medium-sized enterprises (SMEs), where external investor confidence is often tied to the strength of a firm's share capital base. As such, increasing share capital may provide firms with a competitive advantage through both financial leverage and investor perception.

On the other hand, the weak and negative correlation between ROA and Retained Earnings (r = -0.219) contradicts some traditional financial management theories that view retained earnings as a cost-effective source of financing. One possible explanation is that firms in the sample may not be utilizing their retained earnings efficiently, possibly due to poor reinvestment decisions or misallocation of funds. Omondi and Muturi (2020) observed similar results, noting that retained

earnings in some Kenyan firms did not translate to profitability, possibly due to lack of innovation or ineffective internal investment strategies. This underlines the importance of not just accumulating profits, but also strategically managing and deploying them.

Regression Analysis

Additional regression analysis was carried out to see how the study variables are related. The research hypothesized that the components of capital structure (retained earnings, share capital, total debt and total equity) did not affect the performance of firms listed on NSE. To assess how well the company did, return on assets was the main measuring tool. So, the multiple linear regression model was used to help describe the statement.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.984[a]	.969	.927	1.00570

a. Predictors: (Constant), Total Equity, Share Capital, Retained Earnings, Total Debt

Table 3 reports that the R square was 0.969 and the adjusted R square was 0.927. It demonstrates that nearly all (96.9%) of the changes in commercial and service firms' performance at NSE are dependent on the capital structure measures. The remaining 3.1% could be explained by the error term. The high explanatory power ($R^2 = 0.969$) aligns with the conclusions of Abor (2020), who found that capital structure components significantly influence the financial performance of listed firms in emerging markets.

Theoretically, these results support the pecking order theory, which asserts that firms prioritize internal financing (retained earnings), then debt, and lastly equity, depending on the cost and accessibility of funds (Myers & Majluf, 1984). This strong association also reflects the dynamic nature of financial management in listed firms, where optimal capital structure decisions are crucial for competitiveness and shareholder value. As such, the current finding emphasizes the importance of careful capital structuring, especially in environments with limited access to cheap capital or high operational risks.

Table 4: ANOVA Results for the Relationship between Capital Structure and Performance of Commercial and Service Firms listed at NSE

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93.448	4	23.362	23.098	.014[b]
	Residual	3.034	3	1.011		
	Total	**96.482**	**7**			

a. Dependent Variable: Return on Assets (ROA)
b. Predictors: (Constant), Total Equity, Share Capital, Retained Earnings, Total Debt

From the ANOVA results, it can be seen that the calculated F statistics obtained was 23.098. Baring the value of this calculated F statistics, the tabulated F statistics was found to be 9.1172 (p=0.05). The findings were confirmed because the p value measured 0.014 which was less than the standard cutoff of 0.05. Since the calculated F value was larger than the tabulated F and was significant, the null hypothesis was rejected which suggests there is a significant link between capital structure components and performance on the stock exchange in Kenya (NSE). The analysis found that a

company's profits and value depend a lot on its financial choices. An example of this is Abor and Biekpe (2019), who have shown that optimal capital structures lead firms to better use their resources for improved returns.

A further investigation by Njuguna and Munene (2020) on Kenyan companies reached a similar conclusion, claiming that modest debt levels boost performance until the debt level rises beyond the firm's ability to manage promptly. In the current study, share capital and total debt demonstrated statistically significant positive relationships with performance which was measured by Return on Assets (ROA). It indicates that firms that strategically handle their financing do better financially.

Table 5: Coefficient Results for the Relationship between Capital Structure and Performance of Commercial and Service Firms listed at NSE

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5.178	.804		-6.444	.008
	Retained Earnings	.001	.000	7.604	3.319	.045
	Share Capital	.009	.001	4.851	8.609	.003
	Total Debt	.002	.000	-12.050	-4.458	.021
	Total Equity	3.802E-006	.000	.049	.022	.984

a. Dependent Variable: Return on Asset

As presented in the coefficient table, Retained Earnings had a positive unstandardized coefficient (B = .001). This showed that a unit increase in retained earnings would increase the performance of commercial and service firms (ROA) by 0.001 units. Considering that the values adopted were in millions, this shows that for every additional KES 1 million in retained earnings in the commercial and service firms, the firms' ROA increased by 0.001% or 0.01% for every KES 10 million. Additionally, the standardized coefficient (Beta = 7.604) and a t-value of 3.319 indicate that retained earnings have a relatively strong and statistically significant (p = .045) positive influence on ROA. For this reason, the study did not accept the null hypothesis stating that retained earnings and return on asset are not statistically related at NSE in Kenya. So the alternative hypothesis was considered to be correct. The deduction from this finding is that retained earnings have a positive, though modest impact on returns. However, the effect is not very large, which might indicate that only when retained earnings accumulate significantly do they start to influence asset productivity noticeably. In supporting this finding, the study by Wanjiku and Muturi (2020) found that firms in Kenya with high levels of retained earnings tend to have stronger reinvestment strategies, leading to improved asset utilization and returns.

Share Capital was also noted as to have a positive effect on ROA. This was supported with the unstandardized coefficient of .009 and a standardized Beta of 4.851. The t-value was 8.609, and the p-value was .003<0.05, which is highly significant. This suggests that increasing share capital has a strong and statistically significant positive impact on the return on assets. Therefore, the null hypothesis was rejected and the alternative accepted. Moreover, the findings further show that within the commercial and service firms listed at NSE, an additional KES 1 million in share capital

would lead to an increase in the ROA by 0.009%, or 0.09% for every KES 10 million. This is a stronger positive effect compared to retained earnings, showing that infusing new equity from shareholders has a more substantial impact on improving asset returns. In agreement with this, Wambua and Muturi's study (2020) discovered that when Kenyan companies used more equity financing, their assets were better used and their financial outcomes got better as well. Modigliani and Miller's (1958) theory which states that company value does not depend on its debt structure, is confirmed by the study in a perfect market.

Conversely, Total Debt was found to have a negative unstandardized coefficient (B = -.001). On the other hand, the standardized Beta (-12.050) was large. This showed that increasing debt adversely affected ROA. Moreover, the t-value was -4.458 with a p-value is .021. This confirmed the statistical significance of this negative relationship. Overall, this showed that an increase of KES 1 million in total debt results in a measurable decline in ROA. Therefore, this study rejected the null hypothesis and concluded that there was a negative statistically significant relationship between total debt and return on assets of commercial and service firms listed at NSE, Kenya. What the study observed agreed with the study of Mwangi, Makau and Kosimbei (2019) which explained that high financial leverage hurts the performance of Kenyan listed firms, mostly because the cost of the loans exceeds what can be saved by using those loans to reduce taxes.

Lastly, the coefficient (B) for Total Equity was extremely small, but still positive (B = 3.802E-006). Still, the impact of the gender difference was very small and not meaningful. There was a Beta of .049, a t-value of .022 and a p-value of .984 which showed this. This finding showed that for this model, total equity did not have a big impact on ROA. So, we found that Total Equity did not have a significant effect on the ROA of the listed commercial and service firms at NSE, Kenya and the null hypothesis was accepted. This result is the same as what Maina and Ishmail (2019) found which is that equity financing helps keep a company stable and avoids debt-related interest charges, though this does not always lead to better operations or profits.

In summary, the analysis shows that retained earnings and share capital significantly and positively influence return on assets, while total debt significantly and negatively affects ROA. Total equity, however, does not have a significant impact on ROA in this model. Therefore, the multiple linear regression model was presented as follows

ROA=-5.178 + .001RE+.009SC+ .001TD+0.0000038TE

Whereby by;

ROA= Return on Assets

RE= Retained Earnings, SC = Share Capital, TD= Total Debt, TE= Total Equity

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

The study found that each component of capital structure—retained earnings, share capital, debt, and equity—had distinct effects on the Return on Assets (ROA) of commercial and services firms listed at the NSE. Retained earnings and share capital both showed positive and statistically significant impacts on ROA, supporting the pecking order theory and highlighting the value of internal and equity-based financing. In contrast, total debt negatively affected ROA, reinforcing

the trade-off theory's caution against excessive leverage due to financial distress risks. Total equity had a statistically trivial effect on ROA, suggesting that its influence depends more on managerial efficiency and governance than on its sheer volume, in line with agency theory. Overall, the findings challenge Modigliani and Miller's Proposition I by demonstrating that capital structure decisions do affect firm performance in real-world settings.

Conclusion

The study concluded that retained earnings and share capital both have a positive and significant effect on Return on Assets (ROA), with retained earnings showing a stronger impact due to its role in internal reinvestment. Share capital also enhances performance by supporting liquidity and reducing reliance on debt, aligning with the pecking order theory. In contrast, total debt negatively affects ROA, as excessive borrowing increases financial strain and reduces profitability, consistent with the trade-off theory. Total equity showed no significant impact on ROA, suggesting that its effectiveness depends more on strategic management than on volume alone. Overall, the findings emphasize the importance of balancing internal and equity-based financing while exercising caution with debt to ensure sustainable performance among NSE-listed firms.

Recommendations

The study recommends that policymakers promote equity-based financing over debt by introducing supportive measures such as tax incentives and reducing listing costs to ease access to capital markets. Corporate managers are advised to prioritize retained earnings and share capital, reinforcing internal reinvestment and minimizing financial risk from excessive borrowing. Strengthening financial planning and governance is essential to optimize capital use and improve firm performance. The findings also support capital structure theories like the pecking order and trade-off models, while calling for more context-specific research in developing economies. Overall, a balanced capital structure strategy can drive profitability and long-term financial sustainability for firms listed at the NSE.

Suggestions for Further Studies

Future studies should consider increasing the sample size and extending the study period to include more commercial and service firms listed on the NSE over a longer timeframe. Additionally, future research could integrate qualitative approaches, such as interviews with financial managers or CFOs, to gain deeper insights into the strategic considerations behind capital structure decisions.

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