EFFECT OF CAPITAL STRUCTURE ON RETURN ON ASSET OF COMMERCIAL AND SERVICES FIRMS LISTED AT NAIROBI SECURITY EXCHANGE

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DECLARATION

I, the undersigned, declare that this thesis is my original work and that it has not been presented in any other university or institution for academic credit.

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DEDICATION

Foremost, I dedicate this research to my parents Francis Mugo and Teresia Mugo, gifts from God who diligently raised me up with a burning passion for education. Secondly, special dedication turns to my spouse Paul, for his perpetual love, encouragement, moral and financial support. Unique dedication also turns to my adorable children; Tiffany, Eddy and Keith for their continuous love, prayers and in particular my adorable son Eddy who has really encouraged me to complete this project. Last but not the least my appreciation turns to Uncle David for his continuous encouragement to acquire more knowledge. God bless you all.

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TABLE OF CONTENTS

DECLARATION.....**ii**

DEDICATION..... **iii**

ACKNOWLEDGEMENT.....**iv**

TABLE OF CONTENTS .....**v**

LIST OF TABLES .....**x**

LIST OF FIGURES .....**xi**

LIST OF ACCRONYMS .....**xii**

OPERATIONAL DEFINATION OF TERMS .....**xiv**

ABSTRACT.....**xv**

CHAPTER ONE **1**

INTRODUCTION.....**1**

1.0 Introduction 1

1.1 Background of the study 1

1.1.1 Capital Structure 1

1.1.2 Return on Assets 5

1.1.3 Commercial and Service Firms Listed at National Security Exchange.....7

1.2 Statement of the Problem 9

1.3 Research Objectives 11

1.3.1 General objectives 11

1.3.2 Specific objectives 11

1.4 Research Hypotheses.....11

1.5 Significance of the study 12

1.5.1 Managers 12

1.5.2 Investors and shareholders.....12

1.5.3 Policy makers and regulators 12
1.5.4 Academician and researchers 13
1.5.5 Customer/ General public 13
1.6 Scope and Delimitation of the study 13
1.7 Theoretical Framework 14
1.8 Conceptual Framework 16
CHAPTER TWO 18
LITERATURE REVIEW 18
2.0 Introduction 18
2.1 Review of Theories 18
2.1.1 Pecking Order Theory 18
2.1.2 Modigliani and Miller (M&M) Capital Structure Theory 23
2.1.3 Trade-Off Theory 26
2.1.4 Agency Theory 30
2.3 Empirical Review 34
2.3.1 Effects of Retained Earnings on Financial Performance 34
2.3.2 Effects of Share Capital on Return on Asset 37
2.3.3 Effects of Debt on Financial Performance 40
2.3.4 Effects of Equity on Financial Performance 42
2.4 Knowledge Gap 44
CHAPTER THREE 46
RESEARCH DESIGN AND METHODOLOGY 46
3.0 Introduction 46
3.1 Research Design 46
3.2 Research Philosophy 47

3.3 Target population 47
3.4 Sample Size and Sampling Techniques 48
3.5 Description of Research Instruments 49
3.6 Description of Data Collection Procedures 50
3.7 Description of Data Analysis Procedures 50
3.7.1 Descriptive analysis 51
3.7.2 Correlation Analysis 51
3.7.3 Multiple Regression Analysis 52
3.8 Diagnostic Tests 53
3.8.1 Normality Test 53
3.8.2 Multicollinearity Tests 53
3.8.3 Heteroscedasticity test 54
3.9 Ethical Consideration 55
CHAPTER FOUR 56
RESULTS AND DISCUSSION OF FINDINGS 56
4.0 Introduction 56
4.1 Response Rate 56
4.2 Reliability of Data 57
4.3 Descriptive Statistics 57
4.4 Diagnostic Results 59
4.4.1 Normality Results 59
4.4.2 Multicollinearity Results 61
4.4.3 Heteroscedasticity Results 62
4.5 Inferential Analysis 63
4.5.1 Correlation Analysis 64

4.5.2 Regression Analysis 67

CHAPTER FIVE 78

SUMMARY OF THE STUDY, CONCLUSIONS, AND RECOMMENDATIONS 78

5.0 Introduction 78

5.1 Summary of the Findings 78

5.1.1 Effects of Retained Earnings on Return on Assets 78

5.1.2 Effects of Share Capital on Return on Assets 78

5.1.3 Effects of Total Debt on Return on Assets 79

5.1.4 Effects of Total Equity on Return on Assets 80

5.2 Conclusions 80

5.2.1 Effects of Retained Earnings on Return on Assets of Commercial and Service Firms 81

5.2.2 Effects of Share Capital on Return on Assets of Commercial and Service Firms 81

5.2.3 Effects of Total Debt on Return on Assets of Commercial and Service Firms 81

5.2.4 Effects of Total Equity on Return on Assets of Commercial and Service Firms 82

5.3 Recommendations of the Study 82

5.4 Limitation of the study 84

5.5 Suggestions for Further Studies 85

REFERENCES 87

APPENDICES 97

Appendix I: Commercial and Services Companies listed at Nairobi Securities Exchange 97

Appendix II: Data Collection Sheet 98

Appendix III: University Research Letter 99

Appendix IV: Research License 100

LIST OF TABLES

Table 4. 1: Reliability Results.....57

Table 4. 2: Descriptive Statistics 57

Table 4. 3: Tests of Normality 60

Table 4. 4: Multicollinearity Results 62

Table 4. 5: Heteroscedasticity Results 63

Table 4. 6: Correlation Results 65

Table 4. 7: Model Summary for the Relationship between Capital Structure and Performance of Commercial and Service Firms listed at NSE.....68

Table 4. 8: : ANOVA Results for the Relationship between Capital Structure and Performance of Commercial and Service Firms listed at NSE.....69

Table 4. 9: Coefficient Results for the Relationship between Capital Structure and Performance of Commercial and Service Firms listed at NSE.....71

LIST OF FIGURES

Figure 1. 1: Conceptual Framework 17

Figure 4. 1: P-P plot for the Regression Standardized Residual.....61

LIST OF ACCRONYMS

ANOVA	Analysis of variance
BV	Book Value
CA	Current Asset
CL	Current Liability
EBIT	Earnings before interest and tax
EPS	Earnings per share
LSE	London Stock Exchange
LTD	Long-term debt
MV	Market Value
NSE	Nairobi Securities Exchange
OLS	Ordinary least square
ROA	Return on asset
ROCE	Return on capital employed
ROE	Return on equity
ROIC	Return on invested capital
ROTI	Return on time invested
EPS	Earnings per share
TA	Total asset
TCE	Total capital employed
TD	Total debt
TDTA	Total debt to total assets
TE	Total Equity
TNA	Total net assets

TOL	Total outstanding liabilities
GSL	Generalized least square

OPERATIONAL DEFINATION OF TERMS

Capital structure	Used in the study, this term means the way the company mixes debt and equity to support its business (Habibniya et al., 2022).
Current Ratio	This is a liquidity ratio used to assess if the company can meet immediate short-term liabilities (Brigham & Ehrhardt, 2022).
Debt	Refers to a sum of money obtained by borrowing which is to be repaid along with any interest due (Ross et al., 2022).
Equity	Refers to the difference between the value of assets and liabilities (Brealey, Myers, & Allen, 2020).
Financial Performance	Refers to a measure of how effectively a company can use its assets to generate money and reach its financial targets (Mukumbi et al., 2020).
Return on Assets	Shows how efficiently the company makes profits from its total assets (Brigham & Ehrhardt, 2022).
Return on Equity	This shows how well and how effectively the company makes profits from the money it owns (Ross et al., 2022).
Share Capital	Share Capital Is made up of the funds a company gathers by offering shares to investors (Brealey et al., 2020).

ABSTRACT

The way a company is financed is discussed and debated around the globe. More attention is given to capital structure in developed countries than in countries that are still developing. Reviewing what conditions influence how much capital little list companies raise is the basis for capital structure research. It was 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. The basis of the study was mainly the Modigliani and miller, Trade off, Pecking order and Agency theories. 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. It was found by research, however, 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. The study recommended that a holistic approach to capital structure—considering internal reinvestment, shareholder capital, and cautious borrowing—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.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presented the background of the study, statement of the problem, research objective, hypotheses, significance of the study, scope and delimitation of the study, theoretical framework, and conceptual framework respectively.

1.1 Background of the study

The actual essence of the business existence is to make income by taking full advantage of stakeholders' worth. 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). Organizations usually fund their business set-up requirements through debt or equity. 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). Numerous elements are involved in determining whether to use debt or equity to fund business processes (Mutua & Atheru, 2020). Businesses frequently obtain capital from a variety of sources, including borrowing from banks and credit unions, issuing bonds, and so on (Hoa & Huong, 2020).

1.1.1 Capital Structure

The capital structure of the Firm is the method used by a Firm to finance its assets i.e. the debt-to-equity ratio that is perceived by the Firm as most appropriate. There are various elements of financing Structure categorized into; Equity capital, Preference

capital and Debt capital (Nyaga & Deya, 2022). Equity capital denotes monies provided to commence the business venture to substitute for shares and reserved earning which has been kept for business expansion, merger or acquisition of other ventures. Preference share capital can be defined as a combination of both debentures share and share equity. Debt capital refers to money engaged in a Firm that has been loaned externally for a predetermined time by the issue of predetermined benefit in financial securities such as debentures.

Evbayiro-Osagie and Enadeghe (2022) noted that it is problematic for financial managers to precisely point out the optimal capital design. Organization can receive a capital mix of either 100% value and zero obligations or 100% obligation with zero value or any blend of both. Value financing is safer in the feeling of income responsibilities, but results in a weakening of possession and profit whereas obligation capital creates a liability with minimal expense and high-risk vulnerability. It's anything but a very significant segment of corporate finance. That is why finance manager should take a decision of ideal capital mix which may intensify business performance (Gathara et al., 2023).

Many investigations on financing capital structure and business performance have been completed in both developed and developing nations, however a large portion of them have been done in emergent nations. In America, Mardones and Cuneo (2020) study on Latin America firms discovered mixed result for long-term and short-term leverage of the enterprise. Camara et al., (2022) study on capital impact on performance of electricity sector showed negative outcome on capital composition choice. Habibniya et al. (2022) research on telecom Industries in America indicated

mixed outcomes on capital component choice. Fauzi et al., (2022) study on developed and developing Countries discovered that capital debt support Firm productivity.

In Europe, Ahmed and Bhuyan (2020) study on Australian Firms showed that Debts takes over the capital choices of Australian Service Sector. Further research done by Westerlund (2020) on European Listed Firms concluded that financing structure supports a positive relationship between capital composition and firm profitability. In emerging economic regions such as in Asia, Nguyen and Nguyen (2020) study based on non-financial registered Firms cross empirical evidence from Vietnam revealed negative influence between Capital composition and business performance. In china, Ngoch et al., (2021) study on real estate revealed that Capital structure choice has no influence on business capability. In Indonesia, Nini et al., (2020) argued that capital design does not affect viability of the Firm. Iqbam, (2022) investigation in Pakistan between financing structure and Firm profitability discovered negative association. Farhan et al., (2020) study on Indian Firm indicated mixed result on capital composition choice.

In Africa, Boussiki (2023) study on capital composition concluded that Algerian Firm should rely more on internal sources to fund its various ventures. In Nigeria, Akpokerere and Onatuyeh (2023) research discovered that businesses in Nigeria should adopt greater equity to fund its investments. Oke and Fadaka (2021), Ayange et al., (2021) studies on capital structure composition noted that Nigerian Corporations are strongly funded by short-term debt. Olaoye and Dada (2021) conducted a survey based on registered 5 agro allied Firms of Nigeria for 10 years between 2010 and 2019. ROE and ROA were used to measure performance while debt equity ratio and asset turnover were adopted as capital decision measures. The

finding revealed that capital financing structure is not main element of corporate profitability. In Sub-Saharan Africa a study conducted by Evbayiro-Osagie and Enadeghe (2022) revealed that long-term debt is highly preferred. In Tanzania, Ayo and Muba (2021) study on capital structure stated that Tanzanian Firms should carefully select a blended capital structure to increase productivity.

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. Further, Mukumbi et al. (2020) supported the use of debt financing. Nalianya and Mirogo (2020) conducted a study on data set of 11 registered commercial banks in Kenya as of 31 December 2016. The study employed current asset to current liability ratio, operating cost to net operating income ratio, long-term debt to total equity ratio, non-performing loan to total loan, debt to asset ratio and debt to equity ratio as capital composition ratio while ROA was adopted as business performance indicator. The finding revealed that all independent variables influence economic performance of registered commercial banks in Kenya.

Mukoma et al., (2023) reviewed influence of financing structure on Agency cost in Commercial and Services Firms registered at the NSE Kenya for a period of 7 years between 2012 to 2018. Surplus earnings, equity size, and long-term debt were adopted as proxy's capital composition while agency cost was adopted as financial indicator of the Firms. Analysis of the review showed that the variables are related in a positive manner. In their paper, Mutua and Atheru (2020) looked at the financing styles and business outcomes of 8 Companies that are part of the manufacturing and allied sector

at the Nairobi Securities Exchange in Kenya. The factors used for capital structure were retained earnings, long-term debt and equity and return on assets was how business profitability was determined. Unfortunately, business performance was shown to reduce earnings surplus and business value, but long-term debt did not change corporate achievements at all. 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.

1.1.2 Return on Assets

Return on Assets (ROA) is a key financial metric used to evaluate how effectively an organization utilizes its assets to generate profit. 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. For instance, in asset-intensive industries such as manufacturing or utilities, ROA is particularly important because it provides insights into how well the firm is managing its large investments in machinery, property, or technology to achieve profitability (Ross et al., 2022).

In organizations, ROA is not only a measure of profitability but also a performance indicator that assists stakeholders—including managers, investors, and creditors—in assessing operational efficiency and strategic decision-making. By analyzing ROA over time, firms can evaluate the effectiveness of asset utilization, identify areas for improvement, and compare performance against industry benchmarks or competitors (Brealey, Myers, & Allen, 2020). Furthermore, ROA is often linked to management

practices, such as cost control, asset allocation, and capital investments, which directly influence how well the organization balances its resources with its revenue-generating capabilities.

There are various methods that are normally employed to estimate business performance indicators. These include relative markets incorporation costs, incomes, and profit before revenue and tax, net income, return on Asset and return on equity and return on sales among numerous others. During a lot of investigations, analysts generally rely on ROA, ROI, EPS and ROE. Here, the study made use of the ROA as a way to measure performance. Mardones and Cuneo (2020) studied Latin America Firms and how they choose their capital structure. ROA, ROE, were chosen as financial indicator measures and the company recognized short-term and long-term debts as important elements in its financing structure. It became apparent that company's size, growth and financial measures are related in a positive way. However, short- term and long-term financial leverage, as well as company liquidity, yielded mixed results.

Fauzi et al (2022) conducted a study to assess validity of financing structure and financial standing of telecommunication firms. The study was based from international evidence of 62 countries. The study adopted ROA as performance measure and debt to total asset ratio as capital composition measure. The empirical findings demonstrated that business performance of integrated and wireless telecommunications companies are significantly influenced by the capital composition in both developed and developing Nations.

Ahmed and Bhuyan (2020) conducted a study on the association between capital structure and financial indicators in Australian Service Sector Firms. Financial

standing was substituted by ROE, ROA, ROCE and Operating margin. Long-term debt was exchanged for Short-term debt and Long-term debt all to total asset ratio. There was a positive impact seen from the short-term debt ratio.

1.1.3 Commercial and Service Firms Listed at National Security Exchange

Most of the companies at Nairobi Securities Exchange listed under Commercial and Service segments are service companies. Kenya Airways gives a major contribution to the transport field by offering both local and international flights. The company provides clearing and forward services. The firms lead the way in communication services delivery. Other Firms that offer retail services are Deacons East Africa, Uchumi Supermarket and Nairobi Business Venture Limited. Longhorn Publishers run publishing Service and logistics, TPS East Africa gives hotel and accommodation facilities, Scan Group Limited run marketing, advertising, and communication systems across Sub-Saharan Africa. Eveready and Sameer East Africa render commercial resources to their customers. Homeboyz Entertainment which was listed recently in December 2020 offer media and entertainment services. Through the provision of goods and services, these organisations serve as a backbone to the economy of Kenya by improving the standard of living of Kenyan Citizens and the country's Gross Domestic Product.

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. It is likewise a public market intended for openly trading listed Firms in Kenya. It was founded in 1954 as an intentional relationship of stockbrokers under the then Society Act. Its head office is situated on Tosica building in Westland, Nairobi. The NSE helps in deploying local savings thus facilitating

distribution of financial architecture. The NSE accord Kenyans an opportunity to possess shares through empowering organizations to take part in nearby interest in their assets. The companies issue prospectus describing the company operations and strategic plans. It is likewise through this course that organizations can raise additional money that is fundamental for the company expansion and advancement. Similarly, NSE holds the cost of the issue. In addition, Nairobi Securities Exchange assist as far as International Capital Inflow is concerned (NSE, 2020).

In order to meet objectives, set out in the strategic plan of NSE 2010-2024, the company transformed from Nairobi Stock Exchange Limited to Nairobi Securities Exchange Limited in July 2011 which earned recognition from the LSE as an overseas stock exchange. This led to the advancement of the firm's services into complete securities exchange that would uphold trading, clearing and settlement of equities, debt, derivatives and other linked facilities (Onyuma & Kibet, 2017). Currently, NSE employs an automated trading system in a bid to modernize the securities exchange process in Kenya in compliance with major World Stock Exchanges (Onyuma, 2021). According to today's data, approximately 63 companies are operating in the NSE and their average daily trading volume is approximately USD 10 million. The total market capitalization of companies on the NSE is close to USD 23 billion. Different segments called the Agricultural sector, automobile and accessories, Banking, Construction and allied, Energy and Petroleum, Insurance, Investment services, Manufacturing and allied, Telecommunication and technology and Commercial and Services sector include shares listed at the NSE. The National Stock Exchange (NSE) enables trading in equities, corporate bonds and Government bonds. The industry is a major contributor to Kenya's economic growth, by helping people in the country to save and invest and by providing inexpensive funds to local

and international companies. The Capital Markets Authority (CMA) of Kenya manages and oversees the Nairobi Securities Exchange.

1.2 Statement of the Problem

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. High obligations levels have been viewed as one of the reasons for horrible corporate operation in the region and beyond. Therefore, Business managers are mandated to choose the most advantageous capital composition for their businesses to achieve profitability in variety of economic environments.

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). These findings highlight significant operating inefficiencies that blunt asset productivity and limit profitability in the sector. Furthermore, a study focusing on ten commercial and service firms over 2019–2021

revealed a decline in ROA, falling from 0.889% in 2019 to 0.799% in 2021, largely attributed to high leverage and excessive debt utilization (Lomwai, 2024). The negative impact of debt leverage on ROA suggests that increasing liabilities undermines how effectively assets generate earnings, especially amidst rising interest expenses in a high-rate environment. 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). Collectively, these trends point to a systemic challenge—asset investments are not yielding sufficient returns, undermined by both poor working capital practices and leveraged capital structures. This represents a pressing strategic concern for firms in the Kenyan commercial and service sector.

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; Do, 2020; Onsongo et al., 2022). 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; Mukumbi et al., 2020; Yegon et al., 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.

1.3 Research Objectives

1.3.1 General objectives

The overall objective of the study was to establish the influence of capital structure on the return on assets of Commercial and Service Firms listed at NSE, Kenya.

1.3.2 Specific objectives

The study's specific objectives were;

i. To assess the effect of retained earnings on Return on Asset of Commercial and Services Firms listed at NSE, Kenya.
ii. To determine the effect of share capital on Return on Asset of Commercial and Services Firms listed at NSE, Kenya.
iii. To examine the effects of debt on return on assets of Commercial and Service Firms listed at NSE, Kenya.
iv. To establish the effect of equity on return on assets of Commercial and Service Firms listed at NSE, Kenya.

1.4 Research Hypotheses

H_{01}: There is no statistically significant relationship between retained earnings and return on asset of Commercial and Services Firms listed at NSE, Kenya.

H_{02}: There is no statistically significant relationship between share capital and return on assets of Commercial and Services Firms listed at NSE, Kenya.

H_{03}: There is no statistically significant relationship between debt and return on assets of Commercial and Service Firms listed at NSE, Kenya.

H_{04}: There is no statistically significant relationship between equity and return on assets of Commercial and Service Firms listed at NSE, Kenya.

1.5 Significance of the study

The research plays a key role by guiding stakeholders to know how capital structure influences the ROA for Commercial and Service Companies listed on the NSE.

1.5.1 Managers

For Company managers, the research provides clear data on the balance of debt and equity that provides the best result for efficiency and profits. Because of this, organizations can make well-informed decisions about their finances which can help them maintain growth and remain competitive in Kenya.

1.5.2 Investors and shareholders

They depend on such analyses to see how Companies are doing and what issues they may have. Investors can find out about capital structure management by looking at the link with ROA. The results may also point out signs of excess leverage which might have an effect on shareholder profits and the Company's whole stability. Because of this, investors feel secure and want to become more involved on the NSE which helps keep the market active.

1.5.3 Policy makers and regulators

It also supports policy makers and regulators like the Capital Markets Authority (CMA) by giving recommendations based on data that could help the Commercial and Services Sector become more successful and stable. Understanding the results of this study can help create frameworks that support Companies in balancing their debt and equity, following regulations and creating a strong financial environment in Kenya.

1.5.4 Academician and researchers

For academicians and researchers, the study contributes to the body of knowledge on corporate finance in the Kenyan context, specifically within the NSE-listed Commercial and Service Sector. It offers a foundation for further research on capital structure and financial performance, including cross-sectoral comparisons or longitudinal studies to assess trends over time. The findings can also serve as a reference for business students and scholars, fostering a deeper understanding of financial management in emerging markets.

1.5.5 Customer/ General public

Customers will benefit from better quality of products/services and greater convenience due to services that adapt to individual needs. Customers benefit through product or services through sustainable ethical practices such as ecofriendly practices and trade-fair sources that resonate with customers who value social responsibility. Customer also benefit from services that adapt to individual needs and cost savings due to efficient operations which may lead to lower prices or lower deals.

1.6 Scope and Delimitation of the study

The scope of the study was restricted to companies classified under the commercial and services sector on the NSE. Sectors such as agriculture, manufacturing, banking, and insurance are not considered, in order to ensure a concentrated and consistent sample for more precise comparisons and analysis within the targeted industry. The study focused on the capital structure which was measured by retained earnings, share capital, total debt and total equity as the independent variables. The dependent variable was return on assets (ROA). The analysis does not use metrics such as ROE, EPS, NPM, OPM and market share. A quantitative design is chosen and secondary

data come from company financial statements and annual reports. Since researchers want to stay focused on financial information, avoided questions, interviews or other forms of primary data collection.

The focus of the geographical study is Kenya and it looks only at firms on the NSE. Firms that are not on the exchange or are not active in Kenya, are excluded. Information is studied from between 2020 and 2024 which allows the relationship between capital structure and ROA to be seen in a current and meaningful way. Information depending on periods after that is left out. Only secondary data is utilized, derived from publicly available financial statements and annual reports of the selected firms. The study does not incorporate any primary data collection methods such as interviews or questionnaires, to ensure the use of accurate, audited financial information.

1.7 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. After this, Myers (1984) added to his work by examining how his model differed from other approaches such as the Pecking Order Theory. 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, says this theory. 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. They usually spend internal funds such as retained earnings first, next use debt and only look at issuing equity when all other options are exhausted. It is influenced largely because owners are uncertain whether outsiders know all the details of the business and because it costs more to raise money from outside. 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.

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. Another risk is that larger debt increases the risk of disagreements between businesses, shareholders and creditors. 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.

1.8 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 Mutua and Atheru (2020), conceptual framework is a breakdown of the elements of the issue under study. Odero and Mutswenje (2021) argued that conceptual framework is a written or visual presentation which explains either in narrative or graphical for, the major variables to be studied and the likely association among the variables. 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. As you can see in Figure 1.1, the study looks at the relation between the examined variables.

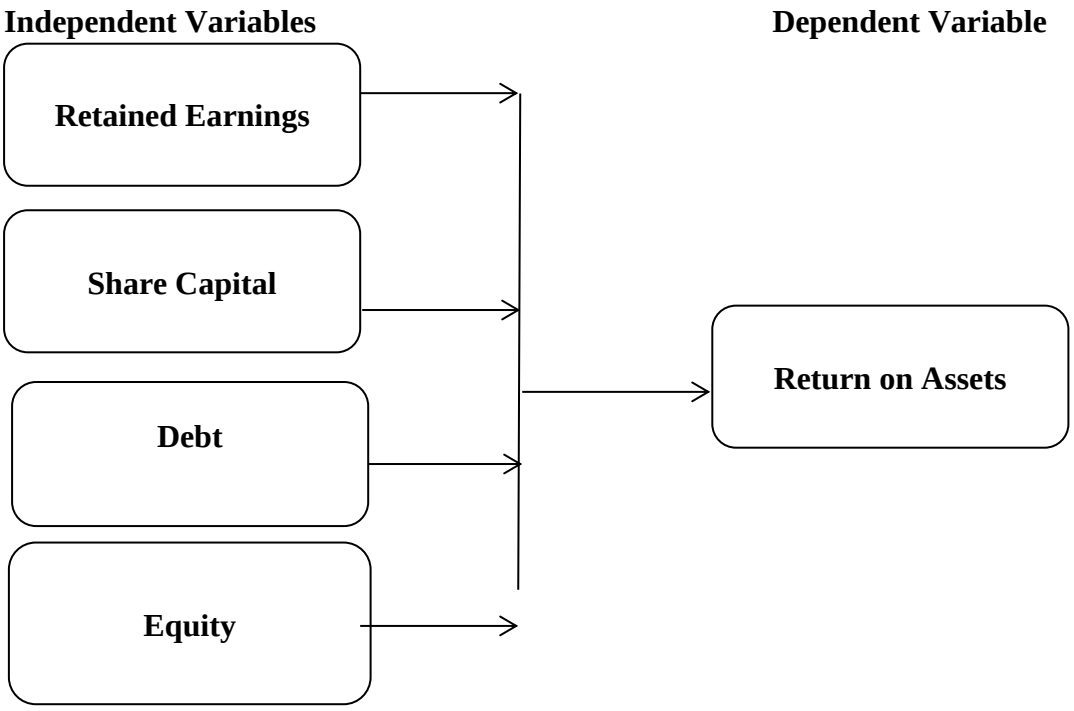


Figure 1. 1: Conceptual Framework

Source: (Author, 2025)

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

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter represented the discussion on areas already researched. It presented the literature review, review of the theories, Criticism of the theories, Empirical review and Knowledge gap. The literature review aimed at evaluating important sources of information that was used to strengthen this study. The literature reviews also enhanced an understanding of prior essential contributions to the current problem and identified the investigation gap so as to refine the research topic more clearly to avoid duplication.

2.1 Review of Theories

The study was guided by four major Capital Structure Theories. These included the following: M&M theory, Pecking order theory, Trade-off theory, and Agency Theory. The theories are detailed in the sub sequent sections.

2.1.1 Pecking Order Theory

Myers and Majluf (1984) first proposed the Pecking Order Theory (POT), which Ali and Abdel Hakim (2023) have since empirically proven. Their findings, which emphasize the ongoing explanatory potential of POT in situations marked by financial restrictions and information asymmetry, showed that companies in emerging nations, like Iraq, prioritize internal funding and only turn to debt or equity when internal finances are insufficient.

According to the Pecking Order Theory, businesses favor internal finance, or retained earnings, above debt, and only turn to equity as a last resort. This hierarchy results

from managers and investors having unequal access to information, which could make the issuing of shares a bad indicator of the Firm's worth. Because they reduce transaction and information costs, retained earnings are linked to better and higher ROA, according to recent proponents like Ali and Abdel Hakim (2023). On the other hand, companies that issue new stock could be viewed as being overpriced or in financial difficulties, which would hurt ROA. Additionally, according to the notion, debt funding is sought once internal resources run out, which could indicate decreased operational efficiency (Ali & Abdel Hakim, 2023).

In emerging economies like Kenya, where enterprises may rely largely on internal resources and access to external financing is frequently restricted, POT is especially pertinent in explaining financing behavior. However, detractors contend that the theory is not always supported by empirical data, especially when it comes to smaller businesses or businesses with a large amount of intangible assets. The Pecking Order Theory (POT), which holds that businesses prefer retained earnings above debt or equity because of lower knowledge asymmetry and transaction costs, is the theory that most directly addresses retained earnings as a crucial part of internal financing. POT thus forecasts a positive correlation between ROA and retained earnings since internally generated funds are used more effectively and indicate the strength of the company. Together the Pecking Order and Agency Theories, which take a cautious approach to equity issuance because of signaling and dilution concerns, provide an explanation for the relationship between share capital and ROA. According to Pecking Order Theory, retained earnings and ROA are positively correlated, particularly in situations where there are informational asymmetries (Ali & Abdel Hakim, 2023).

Myers and Majluf (1984) propose the Pecking Order Theory which claims that Firms make funding decisions based on relative costs and the differences between what they and the investors know. Investors commonly turn to retained earnings because there is no need for outside partners or added costs. If retained earnings are not enough, companies rely on debt and issuing new shares is avoided whenever possible because it costs more and decreases what owners have. This idea is based on managers and outside investors having different knowledge which increases how much it costs to get financing from another source, so managers choose retained earnings instead.

This theory is based on the fact that managers may know more about the company's value and how it will do than outsiders do. It also presumes that firms prioritize internal funds over external financing to avoid signaling negative information to the market. Myers and Majluf (1984) were key proponents, arguing that firms make financing decisions to minimize the adverse effects of information asymmetry and transaction costs. According to this hypothesis, firms exhibit a certain hierarchy for financing decisions. Pecking order theory proposes that firm prefer internal financing over and above external financing (Myers & Majluf, 1984). This indicates that when organizations require funds, they fully use all internally accumulated resources (profit) and then assess the bonus payout ratio to allow the ordinary dividend flow. In case organization has insufficient cash flow generated inwardly it results in obtaining cash from highly vendible and expendable securities (Jahad et al., 2021). Lastly, in case where outside funding is required preference was short-term debt, long-term debts, mixed securities and lastly share issue (Myers, 1977). From these reasoning it is obvious that organization lack optimal leverage thus employ the pecking order inclination concept since retained earnings are affordable and has no external intermediation (Oganda, 2023).

A significant strength of the Pecking Order Theory is its ability to explain Firms' financing preferences in the presence of information asymmetry. It reflects real-world practices, where firms often rely on retained earnings and avoid equity issuance to minimize the dilution of existing ownership. However, the theory has limitations, such as its inability to account for Firms with low retained earnings that still avoid debt due to financial distress concerns. Critics also point out that the Theory does not explicitly consider tax shields or bankruptcy costs, which are central to other capital structure Theories like the Trade-off Theory (Frank & Goyal, 2003).

According to the Pecking Order hypothesis, main reasons for high debt ratios among performing firms may be: their needs for extra capital make debt more attractive to managers than issuing more shares, as this could reduce profit margins (Naranjo, Saavedra & Verdi, 2022). Companies listed on the NSE often face higher relevance of the Pecking Order Theory, as the profit earned by the business plays a key role in the return on assets (ROA). Having a lot of retained earnings means a company can boost its growth without need for extra financing which helps improve ROA. Research on firms traded on the NSE indicates that most prefer to use retained earnings instead of taking on debt or equity which supports the Theory. This helps Firms save on money they pay for borrowing and manage risks, so they can still perform well when economic times get rough (Wambugu & Mwangi, 2023). The Theory suggests that internal finances are necessary to keep profitability and improve financial results in Kenya’s market.

Several people have found flaws in the Pecking Order Theory such as its rigidity and difficulty to apply in practice. It does not state how much debt and equity should be used in the capital structure. Compared to Trade-Off Theory which advises choosing a

mix of debt and equity, Pecking Order Theory does not determine an ideal leverage. Because there is no widely agreed goal for capital structure, it is hard for the theory to explain how businesses choose their finances in all industries and sectors (Frank & Goyal, 2003).

Also, research and evidence on Brand extension theory are mixed and sometimes counter each other. Some reports show that the hierarchy of financing sources is real, but others highlight that companies—mainly small and publicly traded ones—use a variety of ways to obtain financing. According to Shyam-Sunder and Myers (1999), the theory is only partly supported by evidence, but Frank and Goyal (2003) reported that cleaning up the balance sheet does not explain company returns as well as originally thought when examined in a broader market. Additionally, the theory neglects behavioral influences such as managerial efforts to time the market. Baker and Wurgler (2002) demonstrated that firms sometimes issue equity when their stock prices are favorable, contradicting the theory's assumption that equity financing is a last resort.

The theory also generalizes financing behavior, implying that all firms follow the same order of preference. However, this is often not the case, especially for startups and rapidly growing firms, which typically rely on external equity due to inadequate internal funds contrary to the theory's predictions (Donaldson, 1961). Overall, while the Pecking Order Theory contributes valuable perspectives, it falls short of accounting for the diverse and complex nature of corporate financing decisions in the real world.

2.1.2 Modigliani and Miller (M&M) Capital Structure Theory

Brusov and Filatova (2021) are among the scholars who have modernized the Modigliani and Miller (MM) hypothesis, which was first put forth in 1958 and amended in 1963. Their study presents the impact of varying tax payment frequencies on the cost of capital, contending that although the traditional MM irrelevance principle is still conceptually sound, practical flaws like inflation and tax timing must be taken into account to improve its application.

According to the Modigliani and Miller (1958, 1963) initial hypothesis, a firm's capital structure has no bearing on its value or performance in a perfect market, which is devoid of taxes, bankruptcy expenses, and asymmetric knowledge. This neutrality suggests that a company's ability to utilizes its asset to generate revenue should not be impacted by whether it finances through debt, equity, or retained earnings. Subsequent models, which take into account imperfect capital markets and corporate taxes, have modified this idealistic assumption by adding the time of tax payments and capital cost computations under more realistic assumptions (Brusov & Filatova, 2021).

Brusov and Filatova (2021) further expanded the MM framework, notwithstanding these changes, the theory's applicability to developing nations with substantial market inefficiencies, such as Kenya, is still constrained. According to Modigliani and Miller (MM), the financing method such as debt or equity has no bearing on Firm ability to utilize its assets to generate income measured by ROA or business performance in ideal capital markets.

However, Merton Miller and Franco Modigliani explained the M&M Capital Structure Theory in 1958 which serves as a base idea in corporate finance that

discusses the effects of a Firm's capital structure on its value and capital costs. According to the theory, if a market is perfect, the value of the firm is not changed by a combination of debt and equity, meaning that capital structure is irrelevant when some assumptions are met (Modigliani & Miller, 1958). The idea behind the irrelevance theorem is that by avoiding taxes, frictions and bankruptcy, investors can imitate the firm's leverage moves without problems. The theory claims that a firm's financial results are not affected by its capital structure, according to Modigliani and Miller (1963). According to the theory, shifting the mixture of capital used by the Firm does not affect its performance (Odero & Mutswenje, 2021).

According to the theory, a better expected performance happens when there is more of the capital variable in a business. Modifying capital structure doesn't influence profit levels, but it does change the financial stability of the business by modifying the ratio of equity and debt (Ezirim et al., 2020). So, business Performance increases as the financing structure is improved. According to Modigliani and Miller (1958), the M&M Theory depends on conditions such as zero taxes, no fees for transactions or bankruptcy, investors with equal access to information and firms able to borrow or lend without risk. Those who support the Theory suggest that if these favorable conditions exist, the type of financing (debt or equity) makes no difference to the cost of capital or the value of the firm. Their 1963 revision added corporate taxes to the model and proved that debt brings a tax benefit from reducing taxable income, making Firm value higher.

M&M Theory helps explain the relationship between capital structure and Firm value, making it useful for judging a firm's financing decisions. It stresses that certain imperfections in the market, like taxes and possible bankruptcy, guide what capital

structures we see in the real world (Myers, 1984). Still, some major issues are seen, primarily because the Theory relies on assumptions that aren't realistic. Financial troubles, problems created by agency, information mismatches and market inefficiencies are important things influencing capital structure choices, making it hard to apply the M&M theory in real life (Jensen & Meckling, 1976).

Regarding companies on the NSE, the M&M Theory was found to be relevant in addressing the effect of share capital on a firm's ROA. Although corporate taxes and financial distress exist in Kenya, the M&M model adjusted for these points out that a company can do well by using debt when it reduces their tax liabilities but does not cause major risk issues. Omondi and Muturi (2022) found that companies on NSE, when prudently managed financially and doing smart investments, have a positive relationship between raise capital and high ROA.

Modigliani and Miller's paper (1958) is still important in the field of corporate finance, but it has faced criticism because many of its idealized assumptions do not reflect reality. According to the founders, their model is based on capital markets free from taxes, bankruptcy associated costs, costs of transactions and information asymmetry. These simplifications fail to reflect the complexities of real-world financial environments. A key shortcoming of the theory is its neglect of bankruptcy and financial distress costs. In reality, excessive borrowing can lead to serious financial challenges, including legal liabilities, disruptions in operations, and diminished confidence from stakeholders (Kraus & Litzenberger, 1973).

Another major criticism concerns the assumption that individual investors can borrow at the same rate as corporations. In practice, firms usually benefit from lower borrowing costs due to their size and established creditworthiness, unlike individuals

(Myers, 1984). Additionally, the early versions of the MM theory ignore agency conflicts, such as those between managers and shareholders or between shareholders and creditors—issues that are well-known to influence capital structure decisions and firm performance (Jensen & Meckling, 1976). The 1958 proposition ignores that using debt to finance activities gives tax benefits which is a main reason for many firms to take advantage of leverage. Although this limitation was addressed in their revised model in 1963, the theory still overlooks many practical market imperfections. For this reason, MM's approach is seen by many as mostly a theoretical basis for looking at financial decisions, not a real-world tool for corporations.

2.1.3 Trade-Off Theory

By weighing the tax advantages of debt against the risks of bankruptcy, TOT contends that businesses aim for the best possible capital structure (Kraus & Litzenberger, 1973). This is supported by recent research by Esghaier (2024) using American industrial enterprises, which shows that firms adjust toward optimal leverage and that debt is positively correlated with firm ability to generate profit measured by ROA until distress costs take over. Because Esghaier (2024) showed that enterprises dynamically shift toward an optimal capital structure based on the trade-off between the tax benefits of debt and the costs of financial distress, Trade-Off Theory (TOT) has received increased attention. Esghaier offered empirical proof of the theory's applicability in elucidating changes in capital structure, particularly in capital-intensive industries, using panel data from American industrial companies.

In the context of the NSE, according to Shikumo et al. (2020), long-term debt has a favorable impact on business growth through utilization of business asset to make profit. As a result, TOT offers a sophisticated perspective on how choices between

debt and equity impact asset performance. By proposing the concept of an ideal capital structure in which businesses weigh the tax advantages of debt against the possible costs of financial crisis. Trade-Off Theory refutes the MM thesis since moderate debt lowers tax obligations while excessive debt jeopardizes financial stability. The businesses that successfully manage this balance typically see improvements in business ability of using available assets to generate income (Esghaier, 2024). TOT acknowledges the value of retained earnings in preserving financial flexibility and preventing the need for outside funding, which incidentally boosts business ability to make profit. According to the hypothesis, when a company's debt ratio is higher than ideal, it may be advantageous to issue stock in order to lower the risk of insolvency and increase long-term profitability. TOT highlights that businesses should utilize the tax shield benefits of debt until the marginal cost of taking on more debt is equivalent to the marginal benefit. Therefore, TOT provides a thorough and useful explanation of how debt, equity, and retained earnings might affect ROA, especially for capital-intensive businesses functioning in Kenya where there are financial frictions.

The Trade-Off Theory (TOT), which holds that businesses strive for an ideal capital structure where the tax advantages of debt are weighed against the costs of financial crisis, places a strong emphasis on debt financing. This perspective holds that while excessive leverage can have the opposite impact due to increased bankruptcy risks, a moderate amount of debt can improve ROA by lowering taxable income. The Trade-Off Theory, which stresses the use of equity to lessen financial distress. TOT and Agency Theory imply that, unless distress costs step in, debt increases ROA through tax shelters and managerial discipline. According to TOT, share capital can increase ROA by reducing the risk of debt and insolvency. Equity is viewed by TOT as a

safeguard against insolvency, which has a beneficial impact on ROA (Esghaier, 2024).

The tradeoff proposition is a development of the Miller and Modigliani (1958) financing structure because it takes into account the impact of taxes and the cost of insolvency, both of which the MM structure ignored. This theory, Trade-off Theory of capital structure, shows that firms try to weigh the pros and cons of debt financing to decide their best capital structure. Kraus and Litzenberger (1973) suggested that this Model compares how much firms can save using tax benefits from debt (such as interest payments) and how far these savings make up for the problems usually faced by companies in financial trouble such as those related to bankruptcy. The Theory says a company hits its best debt level when the tax benefits the firm gains from debt is matched by the negative impact it may experience from financial trouble, achieving the highest possible value.

This theory recommends altering the structure of their finances, so businesses can achieve the capital structure the financial theories predict that helps them succeed in the market. Because companies have their own characteristics, their financing, operations and performance can be very different from one Commercial and Service Firm to another. Because of this, businesses are likely to have more debt in their ownership which would result in more profits. All in all, the theory says businesses should depend more on sources of funding from capital, assets and debt to increase their financial indicators (Oboro & Peter, 2021). According to the Trade-off Theory, businesses function in markets with imperfections which mean taxes and bankruptcy play a role. It also considers that Firms can draw from capital markets and alter their capital structure to get the best financial results. Those who support this Theory such

as Myers (1984) and Jensen and Meckling (1976), state that it is how actual Firms operate by working towards a balance between using debt benefits and avoiding greater risk with large debt.

In the context of this study, the Trade-off Theory explains well why most Firms do not go to the extreme by using only equity or too much debt. Myers's theory takes factors such as taxation and bankruptcy into account which is more relevant in everyday circumstances than Modigliani and Miller's theory (Myers, 1984). It is difficult for the Theory to explain why some Firms elect not to use borrowed money, even when borrowing would give them tax advantages. According to critics, it is not always certain that bankruptcy costs and tax shields will be predictable in fluctuating markets (Frank & Goyal, 2019).

This theory was found useful in this study because it gave listed firms on the NSE a tool for examining how their debt affects their return on assets (ROA). Debt financing can improve ROA when managed wisely, since it lets Firms support growth and gain from tax breaks. But relying heavily on debt can bring hardship which might hurt the business' performance. Studies of companies on NSE show that ROA is best at the optimal level of debt, backing up the idea put forward in Trade-off Theory (Njoroge & Kinyua, 2023). So, managing leverage correctly is important for the Kenyan market to have steady growth and profit.

Many criticisms have been directed at the Trade-Off Theory, because of its basic assumptions, limited explanation for financial behavior and little practical use to firms. It is thought in this model that companies always look to find a combination of debt and equity that fits their needs best. Many firms find it difficult to reach the optimal mix of debt and equity according to their characteristics and some can stay far

off-track for a long while (Graham & Harvey, 2021). So, factors other than profits may play a bigger role in deciding how companies fund themselves.

Furthermore, even when they can use tax shields, major profit earning companies don't usually depend much on borrowing which the theory is struggling to explain. Instead of the theory's prediction, the findings better fit the Pecking Order Theory which says that companies favor using their own money rather than borrowing externally (Myers & Majluf, 1984). Also, despite the theory suggesting firms manage risks and tax perks in their debt choices, figuring out the exact amounts that failing or going bankrupt would cost is very tough. For this reason, it is hard to find the perfect debt and equity balance in real-life conditions (Frank & Goyal, 2018). Moreover, the theory does not include other vital points, like management rewards, the best time to raise capital and conflicts between managers and shareholders which are important for determining capital structure choices. So, organizations might behave differently than predicted by the theory.

2.1.4 Agency Theory

Jensen and Meckling (1976) first introduced agency theory, which is still being developed and used in research today. In a study centered on Vietnamese businesses, Hoang et al. (2019) discovered that while excessive leverage may lead to disputes between creditors and

According to Agency Theory, debt can be used to reduce free cash flow, mitigate agency costs, and enforce managerial discipline. Hoang et al. (2019) find that in developing markets such as Vietnam, loan utilization and ROA are positively correlated. Additionally, corporate performance is negatively impacted by greater agency expenses, such as excessive managerial discretion; yet, these problems can be

mitigated by debt. This approach emphasizes how funding decisions made by NSE businesses affect governance. Conflicts of interest between different stakeholders within a company, especially between managers and shareholders or between equity holders and debt holders, are the main emphasis of agency theory. According to this hypothesis, agency costs can be reduced by capital structure choices. By restricting the amount of free cash flow available to managers, debt financing, for example, can enforce discipline and promote more effective resource usage.

By bringing management's interests into line with those of creditors and shareholders, an ideal debt level raises ability of the company to utilize assets to generate revenue (ROA) (Hoang et al., 2023). But too much debt can also lead to new agency tensions, especially between lenders and shareholders, which can hurt return on asset. According to Agency Theory, higher share capital can raise agency costs, decrease accountability, and dilute managerial ownership, all of which can have a negative impact on company ability to utilize assets to generate revenue (ROA). Even though retained revenues are economical, they could make agency issues worse if they are not combined with strong governance practices. Therefore, with a focus on managerial incentives and monitoring systems, Agency Theory offers a governance-based paradigm for comprehending how finance decisions affect firm ability to utilize assets to generate revenue. According to the Agency Theory, too much stock can reduce managerial incentives, dilute ownership, and increase agency expenses, which lowers utilization of asset.

The Agency Theory, which acknowledges managerial discipline and the dangers of overleveraging, provides the most thorough analysis of the relationship between debt

and ROA. Excessive equity is flagged by agency theory as weakening governance and impairing performance.

However, Agency theory was initially introduced by Berle and Means (1932), explores the relationship between principals (owners/shareholders) and agents (managers) in a corporate setting. It addresses conflicts that arise due to differing objectives, where managers may prioritize personal benefits over maximizing shareholder value. The Theory argues that equity ownership structures can influence managerial behavior, as managers with significant equity stakes are more likely to align their interests with shareholders. Agency costs, such as monitoring expenses and managerial incentives, are incurred to mitigate these conflicts and ensure alignment.

Agency theory assumes that individuals are rational and self-interested, aiming to maximize their utility. This creates potential for conflict between principals, who seek to maximize returns, and agents, who may pursue personal gains at the expense of organizational goals. The conflict of interest arises between the principal and agent where the agent tends to deal with their own interest instead overlooking the interest of the principal (DeAngelo, 2022). This means the agent may lean toward utilizing free cash flow available to accomplish his own interest instead of ploughing back to the Firm for wealth maximization. Therefore, shareholders are bothered to ensure managers return excess cash flow to them through the payment of dividends instead of the same profit being invested in an unworthy venture. In order to reduce agency conflicts, the role of ownership structures and governance mechanisms is emphasized. The Theory also assumes that financial performance can improve when mechanisms like performance-based compensation or equity ownership are implemented.

Agency theory is strong because it connects how governance and incentives help bring the interests of managers and shareholders into harmony. It affects actual business, promoting systems such as equity compensation and board supervision to keep conflicts to a minimum. But, the idea has constraints, partly because it depends on rational behavior and does not consider other factors like external markets and culture very much. Some people believe that when we only look at self-interest, we miss out on explaining the role of ethics or altruism in management (Eisenhardt, 1989).

In light of companies listed on the NSE, Agency theory reveals how the way equity is structured relates to financial performance, especially return on assets (ROA). When managers are rewarded with equity, it tends to create greater agreement between their decisions and the interests of shareholders which increases how well the firm performs. Also, independent boards and being active shareholders help to limit agency costs. According to studies on NSE-listed Firms, having team members own equity makes them prioritize profitability and eventually report better ROA (Waweru & Kisaka, 2022). The Theory says that strong governance and ownership by many people increase chances of better outcomes in the Kenyan financial market. Agency Theory has been criticized a number of times. Many people argue that managers are thought to always act for their own gain which is a simplistic idea of human actions. According to scholars, along with their personal interests, managers tend to make decisions shaped by professional standards, the culture within the company and the organization’s long-term plans (Donaldson & Davis, 1991).

Also, the theory supports using debt and rewards linked to results to guarantee managers look out for shareholders. Critics claim that when control is given too much

weight, it can make agency-related costs grow and limit what managers can do which might discourage both new ideas and long-term future planning (Daily, Dalton, & Cannella, 2003). Some critics say the theory overlooks the fact that trust, cooperation and own desire for progress are more and more essential for good management in today's organization.

Another frequently cited weakness is the theory's exclusive focus on maximizing shareholder wealth, often at the expense of other stakeholders. This narrow viewpoint has been linked to short-term decision-making and the neglect of broader corporate responsibilities, including environmental and social concerns (Letza, Sun, & Kirkbride, 2004). Furthermore, the relevance of Agency Theory is not universal; its effectiveness can be limited by variations in institutional, legal, and cultural environments, where governance practices and managerial behaviors differ significantly.

2.3 Empirical Review

This section covers the review of previously done empirical studies relating to the current study. The review is presented according to the different objectives of the study.

2.3.1 Effects of Retained Earnings on Financial Performance

The study by Thuranira (2024) on the N.S.E. looked at how various retained earnings influence company returns. He used data from 2009 to 2023 and obtained results by descriptive analysis. Retained earnings, net asset value per share, price to book value, dividend yield and stock returns were kept as study variables. Retained earnings and stock returns appear to have a faint, irrelevant negative link which motivates firms to not retain too much money and gives priority to shareholders in dividend decisions. It

should be clear in the recommendation that it relates to where the Firm stands in its growth. At this stage, growth Firms have investments in the pipeline and finance theory says they can make profits above the Firms cost of capital, unlike those companies at maturity.

In their research, Agembe, Chesoli and Ngacho (2024) analyze 42 non-financial Firms on the exchange to find out how retained earnings are linked to their financial results. The main idea behind this research comes from the Pecking Order Theory, panel data are used and the analysis includes data from 2016-2022, all within the positivist paradigm. Especially for this study, reports from several non-financial sectors, for example agricultural, automobile and accessories, commercial & services, construction & allied, energy & petroleum, insurance, investment, investment services, manufacturing & allied, telecommunication and real estate investment trust were used. The data from the fixed effects model in a panel regression highlights that there is a strong and positive connection between retained earnings and a company's financial performance and it points out how retained earnings affect these Firms.

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 V alue. 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.

The authors Oganda, Museve and Mogwambo (2022) performed a Dynamic Unbalanced Panel analysis using information from published sources over 10 years (2010 - 2019) for 9 listed Firms to find out if earnings retention influenced financial results. Called upon the document analysis guide to find and use secondary data from the Firms' financial records. Earnings held in the firm were main source of financing, swayed by the rate of economic growth and volatility in earnings as shown by Tobin's Q. Pecking order theory was applied as the main guiding theory. Because panel data was used, researchers selected the longitudinal research design. Pearson correlation was applied to determine the strength and the direction (positive or negative) of the relationships between the study variables. There was a weakly positive relationship between RR and Tobin Q (r =0.3197), whereas RR and Ln EVA were strongly positively correlated (r = 0.5997). The regression coefficient shown was bigger than zero and statistically significant.

In their research, Nduati and Wepukhulu (2020) looked into the financial results of Nairobi County's regulated SACCOs by examining the role of saved earnings. Survey research according to the descriptive design was adopted. The study was performed on 29 registered participants in DTS. Studies were based on reports collected by Deposit Taking SACCOs. Average (mean), standard deviation, mode and frequencies were the main tools used for analysis. A univariate linear regression was performed to study whether there is a link between retained earnings and how well the companies do financially. It was found that retained earnings lead to better financial performance in Deposit Taking SACCOs.

The researchers Yemi and Seriki (2018) looked at the relationship between retained earnings and the Market Value of Nigerian firms. 75 non-financial Firms that are a

part of the Nigeria Stock Market were selected for review. The data for Firms was gathered over the period from 2003 to 2024 and is called secondary data. The panel data were studied by conducting analysis using random and fixed effects models. There was a found positive and notable relationship between earnings retained, dividends and earnings per share on Tobin Q, although financial leverage only produced a positive but not significant outcome. It used a generalized method of moments (GMM) approach in two steps to assess performance.

Their study, by Lokwang, Gichure and Oteki (2018), was designed to show how retained profits influence the operations of supermarkets. The research articles were based on Pecking Order Theory and Trade off Theory. The authors applied the explanatory research design to highlight the relationship between the cause (climate change) and its effect (susceptibility to disasters). There were 210 people included in the survey which were drawn from 4 supermarkets in Kitale city center. Only 137 people were randomly chosen from a large group for the study. Five points like at scale questionnaire was how data was collected. SPSS version 20 gave options to work with quantitative data using mean as an example. Correlation coefficients called ‘r’ and multiple regression models were the main tools applied. It was found from the research that there is a strong association between supermarkets’ performance and holding on to profits earned.

2.3.2 Effects of Share Capital on Return on Asset

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.

The main objective of Sabato, Wafula and Agong (2023) was to find out how Share Core Capital influences the finances of Kenyan tier 3 commercial banks. The objectives were to check how core capital SCC and accumulated retained earnings RE affect Tier 3 Commercial Banks' financial results in Kenya. Agency Cost Theory was the basis for the study. The kind of design chosen for the research is descriptive. The information for the study was gathered from the Central bank of Kenya and financial statements that had been audited for commercial banks, for the years 2012 to 2021. The analysis compared the Financial Structure of the Tier 3 bank with its performance as reported through profit after tax (PAT). Collected data was put into a data collection chart. The study found and proved that Share Core Capital (SC) has a strong and beneficial impact on a company's financial results. It was found that having a bigger shareholder core capital cushion within the firm could help financial performance improve.

The article by Dudycz (2021) investigated how company performance is influenced by share capital, how accounting information impacts companies' performance in the

markets prior to their initial public offering (IPO) and how pre-IPO information affects the reliability of predicting performance after an initial public offering (IPO). The study examined a group of companies that did initial public offerings on the Warsaw Stock Exchange from 1998 to 2018. Data from 259 IPOs (out of 496) was chosen. For this purpose, the use of multiple linear regression model was considered. It was found that more equity share capital tied up reduces flexibility, but may show investors that the company could succeed in the market. Having an IPO also shows that market information efficiency sinks which means that the accounting data prior to an IPO has little impact on how the Companies do in the market afterward.

Share capital was examined in a study by Shikumo (2021), looking at how it affects the financial growth of listed non-financial companies at the Nairobi Securities Exchange. The reasons for excluding Financial Firms included their unique sector traits and closely watched rules by government. It uses Market Timing Theory and Theory of Growth of the Firm as its main guides. Using an exploratory research design is what was done for the study. A total of 45 non-financial companies listed on NSE were involved in the study, over the period from 2018 to 2017. Analyses included descriptive statistics and looking at panel data. It was discovered that, a rise in share capital accounts for 32.73% and 11.62% of how earnings per share and market capitalization change, respectively. Higher share capital improves financial growth because it is seen in increases in earnings per share and the company's market capitalization.

Githinji's (2020) study looked at how share capital and preferred stock affect the financial results of listed banks on the NSE. A cross-sectional survey was carried out as the research method. It included all eleven of the commercial banks that are

included on the NSE. Primary and secondary data was used with a data sheet to gather information from financial statements. Data was examined using statistics techniques such as descriptive and inferential techniques. A measure called Pearson's product moment correlation was applied. Share capital and financial performance were strongly positively related (r=0.873 and P=0.000) and the same was true for preferred stock and financial performance (r=0.851 and P=0.001). The study detected that the financial results of banks were connected to their Share capital which banks relied on for equity financing. When banks raise Share capital, their overall financial condition may enhance and their performance become better.

Omai, Memba and Njeru (2018) looked into how petroleum marketing company profitability in Kenya is affected by Share capital finance. A positivist philosophy was used in order to test the hypothesis in the study. A cross-sectional survey design was chosen and criterion sampling was carried out to choose 35 firms from 2007-2016. Data was gathered using Questionnaires and studying information from reports or databases. Descriptive statistics and Univariate tests (including a t-test and Pearson correlation) were done on the data. It was found that Share capital influences profitability in a way that is small and not very important at 5% level. With P=0.369 for the coefficient (-0.174), the hypothesis could not be rejected with 95% confidence, so during the study, Firm profitability was not affected by using or not using share capital finance.

2.3.3 Effects of Debt on Financial Performance

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.

In their paper, Abuamsha and Shumali (2022) attempted to discover how debt structure influences the financial results for companies listed on the Palestinian Exchange (PEX). There are 41 companies in the sample, all from the PEX except for companies in the banking industry. Apart from measuring the models, the descriptive method is used in multiple-regression to look at the panel data. It was found that insurance, investment and industrial sectors can improve ROA by using long-term debt financing for assets. But in the service industry, the effect of long-term debt on ROA is negative, while industrial businesses alone are seen to have a strong link between total debt and their ROA. In addition, the study shows that companies in insurance and investment perform better when they have more short-term debt No writers need to worry about this.

The research by Nazir, Azam and Khalid (2021) investigated how the amount of debt held by listed Firms on the Pakistan Stock Exchange (PSX) is connected to their performance during 2016–2020. Thirty Pakistani companies from the automobile, cement and sugar industries were studied using pooled ordinary least squares regression and fixed- and random-effects models during 2023 to 2017 (total sample size 150). Using a mix of short- and long-term debt is not considered beneficial for how the firm does financially. Because of this, countries may increase their debt because of agency issues which lowers their performance. Non-financial sector

Companies benefit from both bigger sales and larger company size in terms of profitability.

Jones and Aruobogha (2019) explored the ways how companies being listed on the Nigerian Stock Exchange are affected by the type of borrowing they use. Out of the fifteen (15) consumer goods Firms analyzed from the Nigerian Stock Exchange, it was found that all forms of debt help boost company performance, as seen in the panel regression.

The main goal of Wahba (2023) was to study the impact debt maturity structure has on a company's financial results. In panel data research, the random effects model is used to analyse the relation between debt and different indicators of financial performance. It is discovered that the financial performance is driven by the types of debt maturities, not by the level of debt. In other words, short-term debt and long-term debt seem to work against each other and can cancel out the results on overall financial performance.

2.3.4 Effects of Equity on Financial Performance

Equity financing and its effects on Jordanian industrial firms' financial performance were studied by Almanaseer (2024). The research included data from 393 board directors (in 55 Jordanian industrial companies). Purposive selection was used to choose 346 board directors for the study. An online form was assigned to gather data and then the hypotheses were verified using descriptive statistics. Or for another finding, equity financing leads to better financial performance.

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.

Yator and Gitagia (2023) wanted to find out how the financial performance of listed manufacturing firms in Nairobi is affected by retained earnings. The pecking order theory was the starting point for the theory applied. The research used a method called descriptive research design to look at its goals. All the companies worked in manufacturing and they traded on the Nairobi Securities Exchange. A total of seven (7) firms in the manufacturing industry were listed on the Nairobi Securities Exchange for analysis. As the number of Manufacturing Firms listed on the exchange was only seven (7), everyone in that Firm sector was included to make sure they all got counted in the study by means of a census. The material had details about secondary debt, long-term debt, retained earnings and ROA of all manufacturing companies listed in the Nairobi Securities Exchange. Panel regressions analysis were used to look into the reasons and uncertainties and the information was described using Pearson's product moment correlation and standard deviations. There were tables, pie charts and bar graphs showing the information from the data. It was determined by the study that equity funding has an effect on manufacturing Firms listed on the Nairobi Securities Exchange.

Mutie, Muturi and Njeru (2019) tried to gauge the connection between equity financing and how SMEs performed financially by analysing 291,449 licensed businesses in Kenya's different counties. 384 respondents were picked from this group using random selection and data were gathered with structured questionnaires. This study depended on SPSS version 22.0 to code and enter the data collected so it could be analysed. Using regression and correlation analysis, information was analysed to look for a relationship between the independent and dependent variables. Data was examined using statistics that describe the data and those that draw conclusions from it. There was solid evidence that equity financing impacted the financial performance of SMEs.

2.4 Knowledge Gap

It is clear from the previous reviews that the studies reviewed above produced contradictory results. This may be due to the variable considered, theories adopted, study period, study location and studied area. This research therefore, adopted four capital structure variables and one financial performance measures whereas majority of the studies adopted three measures. It is also evident that some of the reviewed studies were conducted in different industries such as the banking industry, insurance industry, and SMEs among others. However, this study solely focused on the Commercial and Service Firms listed in the NSE, Kenya. Regarding the study period, the current study focused on the period between 2020 and 2024. The previous studies had been carried out in earlier years and therefore there may be some changes that have occurred over the years. Therefore, this study would bring out some new insights.

The results could differ because of the various theories, whereas Modigillian and Miller Theory, pecking order theory and trade off theory were applied in most of the reviewed works. Four theories on capital structure were included in the research, these are Modigliani and Miller Capital Structure Theory, Trade off Theory, Pecking Order Theory and Agency Theory. The previous researchers also researched in different geographical areas and various areas of study. This study reviewed Commercial and Services Sector quoted at Nairobi Security Exchange which is unique due to the fact that the segment has combination of both Service Firms and Commercial Firms whereas majority of previous researches concentrated on a single segment. Thus, Conceptual gap, Theoretical gap and contextual gaps provided sufficient motivation to pursue additional research in this field. This study therefore used these gaps to answer the question: what is the impact of capital structure on return on asset of listed Commercial and Services Firms at NSE, Kenya.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

Research design, details about the target population, description of the research instruments, methods for data collection and procedures for analysis of data were all explained in this chapter. The authors also talked about the diagnostic tests carried out so the data would be suitable for use in the study. People also considered ethical factors as well.

3.1 Research Design

According to Nyaga and Ndeya (2022), a research design is a plan, a guide and a strategy developed to seek solutions to research questions. Researchers need a research design because it supports them in forming relationships between their research variables and generalized theories (Onsongo et al., 2020). The research followed a descriptive research design. Because of the structure implied, information from previous periods was able to show the tendency in performance and the team was small, so all the firms were included in the analysis in Commercial and Services Firms (Odero & Mutswenje, 2021).

The justification of using and adopting this design was because it allows researchers to describe the types of patterns, characteristics and trends in the data accurately and chronologically. Concentrating on the links between elements of a capital structure, their effects on return on assets and how they influence total return, the design allows companies to handle secondary data systematically. Also, it helps research when we want to see financial metrics clearly, as it does not change anything, making previous data very useful for understanding the insights. Descriptive research design, as

explained by Yegon et al. (2020), keeps the research tied to real-world facts and helps the findings be valuable and used.

3.2 Research Philosophy

The positivist philosophy is followed, making it ideal for researching the link between capital structure and ROA among commercial and services firms listed with the NSE. It is argued in positivism that using reliable data and statistics allows us to objectively test ideas and spot trends. Because secondary financial data (like income statements and balance sheets) is used in the study, it fits well within the positivist framework that looks for empirical and generalizable outcomes. Investigating connections between equity, debt, share capital and retained earnings and how they affect firm performance can be done using regression analysis and organized research techniques. As a result, conclusions rely on proof, there is less room for the researcher's opinions and the findings are more credible (Saunders, Lewis, & Thornhill, 2019).

3.3 Target population

The study selected Commercial and Services Firms listed on the NSE due to their important impact on Kenya's economy and the differences in their business and financial patterns. Because it is not as heavily regulated as banking and insurance, Commercial and Services Firms are free to adjust their capital structures according to their preferences. Further, this study reviewed Commercial and Services Sector quoted at Nairobi Security Exchange which is unique due to the fact that the segment has combination of both Service Firms and Commercial Firms whereas majority of previous researches concentrated on a single segment.

Because of this, analyzing debt, equity, shares and retained earnings in relation to return on asset can be done for the whole target population. Successful firms often use

planned methods of financing to stay profitable and competitive which affects their return on assets (ROA). This group is studied closely to create findings that improve how the analysis, comparison and interpretation are done. Also, paying attention to this population ensures NSE reporting rules and Capital Market governance remain the same.

Besides, this population was formed more than five years ago (from 2020 to 2024). The need for a five-year study is justified because it allows time to notice important trends, patterns and fluctuations in capital structure and financial performance for commercial and services firms. Year 2020 to 2024 also allow the research to capture financial behavior during crisis Covid 19 and recovery period afterward. The research has captured data during disruption period and recovery period. Further year 2020 marks the onset of Covid 19 pandemic Looking at data year after year for five full years helps reduce any risk of unusual short-term changes affecting the results. Also, this helps the data display the most up-to-date economic and business factors which can be used for current and future planning. As most companies have regular reports every five years, this makes the data collected relevant for strong statistical analysis and model accuracy. (Saunders, Lewis, & Thornhill, 2019), (Onsongo et al., 2020).

3.4 Sample Size and Sampling Techniques

The NSE has a large-scale of Commercial and Service Companies, totaling 11. Because just the 11 selected Companies provided information, a census sampling method was used in the study. Using the approach lets the study review data from everyone in the target population who had complete information. Census sampling is used in this research to include the entire population. Census sampling is also adopted in this study because population under study is relatively small, accessible, and clearly

defined Census sampling allow the researcher to collect data from all relevant units, thereby increasing the accuracy and completeness of the results. Census sampling also enhances the validity and generalizability of findings since every member of the population is represented. This was in consistence with the study conducted by Mukoma et al., (2023) and Nyongesa and Atieno (2023) who found the sampling technique to be efficient. However, as data was being collected for the companies' performance metrics, it became evident that two Companies had terminated operations in the country. This include Deacon East Africa Ltd and Uchumi supermarket which was closed operation in the country. Therefore, there were only 9 Companies left. From these 9 Companies, one firm standard group Ltd which did not have complete set of statistic publicly available for review in the study. Hence, the Company was not included in the analysis hence leaving only data for 8 Companies that was readily available and accessible.

Census sampling allows the researcher to collect data from all relevant units, thereby increasing the accuracy and completeness of the results. Census sampling also enhances the validity and generalizability of findings since every member of the population is represented. This was in consistence with the study conducted by Mukoma et al., (2023) and Nyongesa and Atieno (2023) who found the sampling technique to be efficient.

3.5 Description of Research Instruments

Data already collected was used for this investigation. This category was filled from data available in issued statements from the designated businesses, found at NSE and CMA. The secondary records gathering tool to be applied in this investigation was presented in a table as shown in appendix area and extracted records for Return on

assets, retained earnings, Share capital, Total debts, and Equity. The instrument collected all appropriate information to examine the study variables.

This research relies on secondary data mainly due to its accessibility, affordability, and efficiency. It enables the researcher to utilize information that has already been gathered, organized, and often authenticated by credible institutions such as regulatory authorities, government bodies, or corporate organizations. In the context of this study, secondary sources like audited financial statements, stock exchange filings, and company annual reports offer dependable and uniform data for analysis. Furthermore, the use of secondary data supports the examination of trends over an extended period, allowing for a longitudinal approach without the time and cost burden associated with primary data collection (Meshack at al., 2020).

3.6 Description of Data Collection Procedures

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. The financial reports to be adopted was Statement of comprehensive income, Note to the account and Statement of financial position. Records were also retrieved from Business Journals, Magazines and Articles. The following variables were obtained from the Company's financial position; Return on assets, retained earnings, Share capital, Total debts, and Equity.

3.7 Description of Data Analysis Procedures

The samples collected were looked at many ways in order to analyze them. Through systematic organization and answer, the analysis of the data made it possible to uncover trends, patterns and certain relationships. At first, the data was checked to make sure all the details were correct, complete and consistent. After that, various

statistics like the mean, median, mode, standard deviation, frequencies and percentage were used to understand the main features of return on assets (ROA), equity, debt and retained earnings. Results were made easier to interpret by using tables, graphs and charts. This step of descriptive analysis shows us a clear picture of the data and gives us a foundation for performing inferential statistical methods such as regression analysis used to explore relationships between variables (Saunders, Lewis, & Thornhill, 2019). Mutua and Atheru (2020) found similar patterns in their research as well.

3.7.1 Descriptive analysis

Statistics descriptive methods were used to find important patterns from a big group of numbers (Mutua & Atheru 2020). In this step, we applied the central tendency measures (means and standard deviation) to better understand the sample data. This matches the conclusions drawn by Mukumbi and colleagues (2020), as well as Meshack and others (2020) and Yegon and co-authors (2021).

This study uses descriptive analysis to give a clear summary of all the collected data, so that people can see the main features and main patterns in the data. Helps to structure and shorten data that has many values by using statistical procedures like averages, medians, standard deviations, frequencies and percentages. Because financial data is central to the study, noticing when patterns, randomness or surprises appear is helped by describing the data (Mutua & Atheru 2020).

3.7.2 Correlation Analysis

Correlation analysis was thus used to give an early indication of the presence of an association. Correlation means the way two variables are linked together. The research showed how much Capital position and Business performance were related.

This is consistent with Mujwahuzi and Mbogo (2020) who noted that constructive correlation provided evidence of an existing bond between financing structure and financial standing.

3.7.3 Multiple Regression Analysis

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 was chosen because it has the ability to predict the relative impact of one or more predictor variable to the criterion value. This is consistent with the study by Lomwai and Ndede (2023) on the impact of leverage ratio on business performance of Commercial and Services Firms listed in the NSE, Kenya.

The regression analytical model to be applied is as shown below:

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

Y _ Return on Asset

α_0 _ Is the constant

RE _ Retained Earnings

SC _ Shared capital

TD _ Total Debt

EQ _ Total Equity

$\beta_1, \beta_2, \beta_3 \& \beta_4$ _ Coefficients,

e _ Is the residual error term

3.8 Diagnostic Tests

In this study, the researchers studied the three main diagnostic tests which are normality tests, multicollinearity tests and heteroscedasticity tests; they looked at these in that particular order. More information on their ideas is given here.

3.8.1 Normality Test

A normality test is used to verify whether the residuals or errors from a regression analysis are normally distributed an essential condition for making reliable inferences and constructing accurate confidence intervals. In conducting the normality test, Affiliations was examined using multiple regression models, with a significance level of 0.05 (that is, P0.05) as indicated by Cooper and Schindler (2024). The test relied on the Shapiro-Wilk test. This is the typical way to test for normality if our data is small or moderate. It looks at the idea that the data could be drawn from a normal distribution in the null hypothesis. The data is thought to be regularly distributed when the p-value obtained from the test is higher than the standard threshold (often 0.05).

3.8.2 Multicollinearity Tests

Multicollinearity test evaluates the degree of correlation among independent variables. High multicollinearity can interfere with the estimation of regression coefficients, making it difficult to isolate the unique impact of each predictor. While carrying out the multicollinearity test, I investigated the VIF (VIF) and Tolerance. A VIF (VIF) measures how much the independent variables in a multivariate regression model are related. If the VIF is less than 5, there is generally no serious problem to worry about. If the VIF is high, the results from the regression may not be very reliable (Potters, 2023). VIF is the opposite of tolerance (VIF = 1/tolerance). Values

of tolerance near 1 suggests there is not much multicollinearity in the dataset, but a value of tolerance near 0 means there is some significant multicollinearity.

3.8.3 Heteroscedasticity test

The heteroscedasticity test, on the other hand, examines whether the variance of the error term remains consistent across different levels of the independent variables. When heteroscedasticity exists, it can lead to biased standard errors, which in turn may result in incorrect statistical interpretations of the data set. For parametric measurements to work ideally, the change of the information should be something very similar all through the informational index (Hayes, 2020).

According to Hayes (2020), heteroscedasticity occurs when the fluctuation of the reaction variable's subpopulations is not consistent, that is, they separate or merge. The presence of heteroscedasticity might cast doubt on important factual trials that presume that modeling errors are uncorrelated and typically scattered, and that their differences do not alter with the displayed impacts. The Breusch-Pagan test was used for this test. This is a formal statistical test used to determine heteroscedasticity. It investigates whether the residual variance is related to the independent variables. The test suggests that heteroscedasticity (different variances in the errors) might be present if the p-value is less than 0.05. In a regression problem, the null hypothesis means there is no change in the variance from the mean (homoscedasticity), while the alternative hypothesis suggests the variance can change from the mean (heteroscedasticity).

3.9 Ethical Consideration

Considering ethics in this type of research guard the study's reputation and ensure its results can be trusted. Researcher ensured confidentiality of data by not including any identifying information when using the data. Always acknowledge your data sources, so others know the original authors and you do not plagiarize. It was made sure that the data came from verified, legal and ethical places, so no unlawful or incorrect data was involved. Also, researchers highlighted what is good and bad about secondary data to remain honest and reliable. In addition, the study obeyed all ethical and regulatory standards by getting university permission and a research license from NACOSTI.

CHAPTER FOUR

RESULTS AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter presented the results and discussion of findings on the capital structure and the financial performance of commercial and service firms listed at NSE, Kenya. In covering the chapter, the various sections captured included response rate, descriptive statistics, diagnostic results, and inferential analysis.

4.1 Response Rate

At first, the study was carried out on 11 Commercial and Service Firms featuring on the NSE, Kenya. As data was being collected for the companies' performance metrics, it became evident that Uchumi Supermarket and Deacon East Africa Limited had terminated operations in the country. Therefore, there were only 9 companies left. From these 9 companies, the publicly available data for Standard Media Group did not have some of the statistics that were being examined in the study. Hence, the company was not included in the analysis hence leaving only data for 8 companies that was readily available and accessible. This translated to a response rate of 72.7%. The response rate was found to be sufficient and adequate for developing valid conclusions for the study. According to Mugenda and Mugenda (2003), a response rate of 70% and above is regarded as excellent. Additionally, Saunders et al. (2019) emphasize that higher response rates enhance the credibility, reliability, and generalizability of research findings by minimizing non-response bias. This is particularly crucial in studies involving organizational performance, strategy, or other sensitive business variables, where non-responses may skew results if a significant portion of the target population is unrepresented.

4.2 Reliability of Data

In checking the reliability of the data, Cronbach Alpha method was used. For this method, the rule of thumb states that if the values obtained are between 0.7 and 0.9, the data is considered to be reliable and can be used for analysis. The results for data reliability as checked in this study is summarized in Table 4.1.

Table 4. 1: Reliability Results

Cronbach's Alpha	No. of Items	N (Study Sample)
.800	5	8

As shown in the Table 4.1, the Cronbach Alpha value obtained for the data was .800. This value is within the recommended values of 0.7-0.9. Therefore, this study concluded that the data was reliable and could therefore be used in the analysis.

4.3 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 4.2.

Table 4. 2: 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 includes 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.

4.4 Diagnostic Results

Diagnostic tests are procedures or processes used for the purpose of establishing the accuracy, strength and weaknesses of collected data (Sitch et al., 2020). This study conducted the following diagnostic tests; normality test, multicollinearity test, and autocorrelation test respectively.

4.4.1 Normality Results

Normality test was performed, and significant insights were computed. The Shapiro-Wilk test was utilized in the Normality Tests. This is a common normality test for small to medium-sized datasets. The study checked the possible hypothesis that the data comes from a standard normal distribution. The data is considered to be regularly distributed when the p-value from the test is larger than the significance threshold (looks like step 9). See Table 4.3 for the finding of the normality test.

Table 4. 3: Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Retained Earnings	.242	8	.188	.889	8	.231
Share Capital	.218	8	.200*	.931	8	.522
Total Debt	.157	8	.200*	.938	8	.596
Total Equity	.219	8	.200*	.938	8	.590
Return on Assets	.168	8	.200*	.929	8	.503

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Shapiro-Wilk results (Table 4.3) show that every variable had a p value higher than 0.05. Because of the information, scientists concluded that the data followed a normal distribution. Also, the p-p plot is used to examine whether the residuals in a regression model are normally distributed. The importance of assuming normality in regression is seen in the many inferential tools that depend on it (p-values and confidence intervals). The left side of Figure 4.1 shows the regression standardized residuals for the equation as a whole.

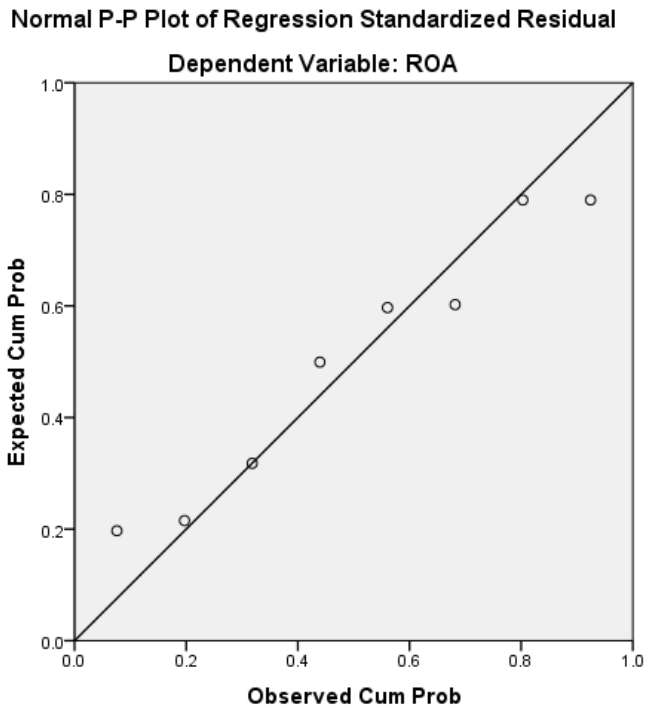


Figure 4. 1: P-P plot for the Regression Standardized Residual

Figure 4.1 shows that the dots in this plot are reasonably close to the diagonal line, although some deviation is visible, especially at the tails (lower-left and upper-right ends). It can therefore be concluded that the residuals come from an approximately normal but not perfectly distribution.

4.4.2 Multicollinearity Results

According to Daoud (2017), multicollinearity is a factual phenomenon where two or more indicator factors are connected in separate regression models. Estimations in individual indicators are affected by Multicollinearity. The VIF (VIF) and Tolerance were examined to determine the multicollinearity test. A VIF (VIF) assessed multicollinearity among independent variables in a multivariate regression model. A VIF of three or less is not cause for alarm, according to the rule of thumb. The higher the VIF, the less trustworthy the regression results would be (Potters, 2023).

Tolerance is the inverse of VIF (1/VIF). Tolerance levels near 1 suggest minimal multicollinearity, whereas tolerance values near 0 indicate significant multicollinearity.

Table 4. 4: Multicollinearity Results

Model		Collinearity Statistics	
		Tolerance	**VIF**
1	(Constant)		
	Retained Earnings	.902	1.109
	Share Capital	.939	1.065
	Total Debt	.359	2.789
	Total Equity	.370	2.702

a. Dependent Variable: Return on Assets

From the VIF values it was noted that the highest was 2 and the lowest was 1 whereas all the tolerance values were high. This implied that multicollinearity was not a problem.

4.4.3 Heteroscedasticity Results

Heteroscedasticity is present when the variance of the mistakes in a regression is different for each observation and this can cause ineffective estimates and wrong results. Here, the Breusch-Pagan test was used to find signs of heteroscedasticity. This test assessed whether the residual variance from a regression is dependent on the values of the independent variables (Gujarati & Porter, 2009). In this test, the null hypothesis assumes homoscedasticity (constant variance), while the alternative suggests heteroscedasticity. The rule of thumb is that if the p-value from the Breusch-Pagan test is less than 0.05, the null hypothesis is rejected, indicating the presence of

heteroscedasticity (Wooldridge, 2023). The results of heteroscedasticity are presented in Table 4.5.

Table 4. 5: Heteroscedasticity Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.151	4	.038	.289	.869b
	Residual	.391	3	.130		
	Total	.541	7			

a. Dependent Variable: res_squared

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

Shown in the Significance column of the Table 4.5, the p value ended up being 0.869. The result exceeds the standard p value which is usually 0.05. So, the study was unable to reject the null hypothesis. There were not enough reasons to say that heteroscedasticity affected the regression model.

4.5 Inferential Analysis

Further analysis with inferential techniques was done in this study to back up the descriptive statistics. To do inferential analysis, statistical data collected from a sample group is used to make general statements about the complete population. In this analysis, correlation tests and regression models were applied to check the relationship between capital structure (retained earnings, share capital, total debt and total equity) and return on assets (ROA). Through the analysis, scientists figured out how solidly the relationships existed and whether they were significant which matters allowed them to predict ROA from financial structure indicators.

Since inferential analysis gives accurate data, it can play a big role in choosing financial strategies and forming policies. If inferential analysis was not applied,

results would be based only on data already present and a high level of statistical support would not exist for extension of findings (Field, 2023). Also, when we test hypotheses and look at confidence intervals, inferential statistics make the results we draw from data stronger and more reliable (Creswell & Creswell, 2018).

4.5.1 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 4.6.

Table 4. 6: 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).

Table 4.6 shows the Pearson correlation coefficients for Retained Earnings, Share Capital, Total Debt, Total Equity and Return on Assets (ROA), together with their significance values. There is a strong statistical and positive correlation between ROA and Total Equity ($r = 0.905$, $p = 0.002$) at the 0.01 level and also a noticeable, positive correlation with Total Debt ($r = 0.743$, $p = 0.035$) at the 0.05 level. Share Capital is shown by the data to correlate with ROA, with a moderate degree of strength ($r = 0.511$) and the relationship is proven to be statistically significant ($p = 0.019$). Nevertheless, ROA is not found to strongly correlate with Retained Earnings, but it correlates weakly and shows a negative correlation ($r = -0.219$, $p = 0.006$). According to this data, Total Equity and Total Debt have a big effect on ROA, but there is a risk of multicollinearity and it should be checked in deeper analysis.

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.

Someone might expect ROA and Debt to be negatively related, but the data says they 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. They proved that carrying light and moderate debt is connected to improved financial results which is what the present study found as well. 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.

4.5.2 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. The model summary, ANOVA and coefficient tables present the results in the way they are seen in the example.

Table 4. 7: Model Summary for the Relationship between Capital Structure and Performance of Commercial and Service Firms listed at NSE

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 4.7 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. Likewise, Chisti, Ali, and Sangmi (2019) observed a strong relationship between capital structure and firm performance among Indian companies, particularly in capital-intensive sectors, emphasizing that firms with an optimal mix of debt and equity tend to perform better.

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. Kibet and Muturi (2019) found that listed firms at the NSE that strategically adjusted their capital structure were better positioned to withstand market volatility and deliver consistent returns. 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. 8: : 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. When a company decides on debt, equity, share capital or retained earnings (savings) in its capital structure, this can bring about different costs, do things differently and face various kinds of risk. 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. Because of continually fluctuating rates, the opinions of investors and updates in regulations in the Kenyan market, listed firms must pay special attention to corporate governance.

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 another study, Omwoyo and Memba (2021) demonstrated that well-planned use of equity and retained earnings helped service firms at the NSE to maintain strong performance for many years. Like 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.

Studies from around the globe have pointed out that how a company structures its capital plays a big role in enhancing its effectiveness. In the study by Yuan and Motohashi (2022), it was shown that companies using moderate debt and equity together did better than those using mainly one type of finance. This helps businesses in Kenya, as capital markets in developing countries might have lower liquidity which means decisions made about financing can decide a firm's survival and effectiveness in the future. This means that opting for a certain capital structure has impacts on efficiency and shareholder value in addition to being a financial decision.

During these years, people have been paying more attention to financial performance metrics because of economic changes worldwide such as the COVID-19 pandemic. Firms with flexible and adaptable capital were found by Wambugu and Ochieng (2023) to be more able to cope in difficult financial times and recover more quickly. This points out that we have to both find a strong correlation and recognize other external factors that play a role for capital structure and performance. Therefore, for listed firms in the NSE's commercial and service sectors, making data-driven and

strategic capital structure decisions is crucial for maintaining profitability, market share, and investor confidence in a dynamic financial environment.

Table 4. 9: 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—profits reinvested into the business—have a positive, though modest impact on returns. This supports the idea

that plowing back profits into operations, rather than distributing them, can marginally enhance efficiency and 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.

Moreover, the Beta value (7.604) and the supporting t-value of 3.319 ($p = 0.045$) reveal that companies with more retained earnings perform better and that these funds not only sit in the bank but actually help with running the business and making investments. In their study, Kibiru and Njeru (2021) point out that when companies retain some earnings, rather than distributing them as dividends, they can invest in fresh projects, use less outside debt and protect themselves from financial shocks. Therefore, the pecking order theory which suggests firms choose internal sources for their funds because they are more affordable and carry less risk (Myers & Majluf, 1984), is still relevant.

Reported trends are generally the same around the world. According to Bolarinwa and Afolabi (2022), having retained earnings led listed companies in Nigeria to boost their return on investments, mainly in industries where securing credit is difficult. Because of these results, it is clear that retained earnings secure funding for the firm and strengthen its standing with investors. Moreover, retained earnings contribute to long-term sustainability, enabling firms to withstand market volatility without excessive external borrowing, which may otherwise dilute earnings through interest expenses.

The observed positive relationship between retained earnings and ROA affirms the importance of profit retention as a financing strategy among commercial and service firms at the NSE. It supports the view that internal capital accumulation is a cornerstone of firm profitability, particularly in emerging markets where access to debt or equity financing may be constrained. As supported by current literature, retained earnings continue to be a key driver of financial performance and corporate resilience in dynamic and often uncertain economic environments.

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. This is often so because adding resources via share capital can directly increase the company's ability to grow and make more money. 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. Using equity capital, firms can build their assets without paying interest which improves their return on assets (ROA). In a similar study, Chebii and Wasike (2021) found that companies that raise capital by selling equity outperform their peers, since

the funds go to expanding or making their operations more efficient with better technology.

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. However, in real markets like Kenya's, where there are taxes and bankruptcy costs, equity can significantly influence firm value and profitability. Equity capital offers a relatively stable source of funding and reflects investor confidence, which can also positively influence stakeholder perceptions and access to additional resources (Githire & Muturi, 2019).

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. The implication of this finding is that debt financing, while often necessary, might be dragging down asset performance—possibly due to high interest expenses or poor capital allocation. Moreover, the findings may suggest that the commercial and service firms are potentially over-leveraged or do not use the funds they borrow efficiently.

What the study observed is in agreement 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. Also, Omondi and Muturi (2020) pointed out that firms that rely heavily on debt can find it trouble to maintain profits, as they have less freedom and are more vulnerable to suffering losses. This points out that internal financing is liked more than external debt by companies building their pecking order, as it keeps costs down and risks.

Following this study, Al-Najjar and Belghitar (2021) found that for UK companies, the total amount of debt was connected to poorer returns on assets, mainly when the market was especially volatile. It proved again that moderate use of debt is beneficial, but too much borrowing affects a business's value for shareholders and financial performance. Additionally, according to Abeywardhamana (2020), a lot of debt affects the performance of businesses in developing countries because their financial markets are weaker and it is more expensive for them to borrow. All things considered, the study shows that using debt sensibly and when needed allows for better growth. Because of the negative effect total debt has on ROA for some NSE-listed commercial and service firms, it is important for them to improve their approach to debt management and to rely more on using their own funds or raising money equity-based. It also points out that both policymakers and firm managers should regularly watch leverage ratios to support profitability and long-term survival.

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. Basically, although equity is still related to the structure of capital, it has only a minor and insignificant impact on ROA in these companies. 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. They found that Kenyan companies gain from equity investments for their long-term survival, yet its immediate influence on profit such as ROA, is not as strong. In the same way, Akingunola, Adekunle and Adedipe (2020) observed in their study of firms in Nigeria that high levels of equity did not usually make a big difference to financial performance if internal inefficiencies and market swings were present.

The finding could be explained from a theoretical standpoint using the trade-off theory which explains that, although equity financing provides more certainty, tax benefits from debt may give investors bigger returns. Firms depending mainly on equity might be forced by shareholders to pay dividends, making them invest less and therefore miss out on possible raises in asset values (Frank & Goyal, 2019). It is clear that equity alone is not enough to explain ROA which highlights that companies should try to have a well-balanced capital structure. Although having equity means financial safety and flexibility, it will not lead to better performance unless the company is managed well, is governed well and responds to market changes. Based on NSE firms, it is clear that focusing on equity alone is not enough to make a profit and it works best when supported by measures to improve operations.

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

CHAPTER FIVE

SUMMARY OF THE STUDY, CONCLUSIONS, AND RECOMMENDATIONS

5.0 Introduction

This chapter present the summary, results, conclusions and recommendations on how capital structure affects the return on assets CBF in Kenya. The chapter discussed more studies that could be conducted.

5.1 Summary of the Findings

The study demonstrated that the components of capital structure had individual effects on the performance of commercial and service companies listed at the NSE, assessed through Return on Assets (ROA). They give useful guidance on improving a company's financial setup to improve overall performance.

5.1.1 Effects of Retained Earnings on Return on Assets

Retained Earnings increased ROA and this change was significant. The result showed that for every increase of KES 1 million in retained earnings, the ROA improved by 0.001% (B = .001). Scaling up, this means ROA rises by 0.01% for every KES 10 million in assets. It was clear that the beta coefficient was high and the t-value together with its p-value proved the significant relationship was statistically meaningful. This means that retained earnings provide a useful form of financing for a firm, boosting profitability, consistent with the pecking order theory which values using internal sources before outside ones as they are less expensive and less risky.

5.1.2 Effects of Share Capital on Return on Assets

Share Capital also had a positive and statistically significant relationship with ROA. The unstandardized coefficient (B = .009) indicated that for every KES 1 million

increase in share capital, ROA increased by 0.009%. The significance of this relationship was reinforced by a strong standardized Beta value, a high t-value, and a significant p-value. These results suggest that equity financing through the issuance of shares can effectively enhance firm performance. This could be attributed to the long-term stability that equity brings, unlike debt which imposes interest obligations. Hence, encouraging equity investment appears beneficial for firms aiming to boost their financial performance.

The findings of the study partially align with Modigliani and Miller's (MM) theory, which posits that in a perfect market, a firm's value is independent of its capital structure. However, the positive and statistically significant relationship between share capital and ROA suggests that equity financing does enhance firm performance, contradicting MM's Proposition I by implying that capital structure decisions (e.g., issuing shares) do affect returns. This divergence can be explained by real-world factors such as reduced financial risk, avoidance of interest obligations, and the stability equity financing provides—factors not accounted for in MM's original assumptions.

5.1.3 Effects of Total Debt on Return on Assets

Total Debt had a negative and statistically significant impact on ROA. Although the unstandardized coefficient (B =-0.001) might appear negligible at first glance, the large negative Beta and significant t-value as well as the p-value reveal the adverse effects of increasing debt levels on profitability. This means that while firms might rely on debt for expansion and operations, higher debt levels may lead to increased financial burdens, reducing overall performance. The results back up the trade-off

theory which covers the benefits of tax shields from debt and the dangers tied to risk of financial distress.

5.1.4 Effects of Total Equity on Return on Assets

Equity had only a very little impact on ROA that was considered statistically trivial. The Beta, t-value and p-value all showed that Total Equity did not play a significant role in affecting firm performance here. Since equity financing is important, the fact that its effect is small could mean that how it is managed and put to use really matters more than its pure presence. So, even though equity is an important part of a firm's finance, its sole impact on outcomes might not always be noticeable, but it can certainly influence results when used right. Agency theory emphasizes the conflicts of interest between managers (agents) and shareholders (principals), suggesting that the way equity is managed can significantly influence firm performance (Jensen & Meckling, 1976). The study's finding that equity had a trivial impact on ROA aligns with the theory's view that the mere presence of equity is insufficient unless properly monitored and utilized to align managerial decisions with shareholder interests. Thus, the study indirectly supports agency theory by implying that the effectiveness of equity financing depends more on governance and managerial efficiency than on its absolute level.

5.2 Conclusions

Because of the results, the study forms various conclusions. According to ROA and capital structure, their features have a big effect on the performance of listed Commercial and Service Firms on the NSE. Retained earnings, share capital and total debt showed different amounts of impact and ROA was only slightly affected by total equity.

5.2.1 Effects of Retained Earnings on Return on Assets of Commercial and Service Firms

It was discovered that retained earnings had a clear, positive and significant effect on ROA. That means businesses are able to do so when they reinvest a larger portion of their earnings. Positive and significant value for the retained earnings coefficient points out that internal sources of funding made by reinvesting profits help the Company's performance.

5.2.2 Effects of Share Capital on Return on Assets of Commercial and Service Firms

Share capital was found to be positively connected with ROA in the study, suggesting that more shareholder equity leads to better firm performance, although it does not make as big a difference as retained earnings. Because share capital has a positive and significant relationship, using new shares helps companies fund things that increase efficiency, lessen debt taken from external sources and ensure liquidity. It goes in line with the pecking order theory which says firms prefer to finance themselves internally and select equity instead of debt. Share capital helps the company grow its capital and protects it from financial trouble which supports good long-term results.

5.2.3 Effects of Total Debt on Return on Assets of Commercial and Service Firms

No surprise, higher levels of total debt were related to a lower ROA for the firm, showing that the higher the levels of debt, the poorer the firm's results. It means that the resources of the firm can become strained by high financial leverage, because it leads to more interest payment and principal repayment and thus causes a drop in income and in returns to assets. The analysis is consistent with the trade-off theory which warns that companies should not use too much debt because of the possible

increased risk of financial trouble. The fact that debt carries risks reminds commercial and service firms in Kenya that they need to be mindful about their borrowing approaches, since borrowing too much might lower profits and make it harder for their firms to last.

5.2.4 Effects of Total Equity on Return on Assets of Commercial and Service Firms

Results indicate that total equity does not significantly contribute to the ROA, showing that it does not have a noticeable effect on how much money a company earns in the short term. The reason might be that equity financing is stable instead of putting the same level of pressure on performance as debt or earned reserves. Because of this, this part may mainly keep the system reliable rather than making it perform faster. Combining the results shows that providing funds by using owned resources and equity is better for listed companies at NSE than using debt which could negatively affect the company's performance if used to excess. The conclusions from these types of research aid corporate financial managers and policymakers as they try to achieve growth and stability in Kenya's financial sector.

5.3 Recommendations of the Study

Following the results of the study on capital structure components and commercial and service firms listed at the NSE, different strategic suggestions are offered for various people involved: policymakers, members of the investment community and financial school students. Such suggestions are based on studies and meant to boost a firm's performance using effective choices about capital structure.

The research advises that policy should nudge companies to look more to equities and other funding sources instead of relying on debt which is what policymakers should

focus on. Total debt is negatively linked to ROA which proves that firms can suffer from high borrowing amounts. For this reason, the CMA and the National Treasury may want to bring in new policies that make equity financing easier, for example, with tax benefits or by lowering the cost of getting listed. Also, making sure the capital markets are transparent and that it is cheap to raise equity capital helps promote healthy financing and cut reliance on debt.

For corporate managers and financial practitioners, the study recommends adopting a more balanced and prudent capital structure strategy that prioritizes retained earnings and share capital as primary sources of financing. Given the positive and significant relationship between retained earnings and ROA, firms should implement earnings retention policies that promote reinvestment in productive ventures rather than distributing high dividends. Managers should also be cautious about accumulating high levels of debt, which can erode returns and increase financial risk. Moreover, firms should strengthen internal financial planning and forecasting mechanisms to optimize the use of retained earnings and ensure that shareholder capital is deployed efficiently.

From a theoretical perspective, the findings contribute to ongoing debates around capital structure theories such as the pecking order and trade-off theories. The evidence supports the pecking order theory's assertion that firms prefer internal financing (retained earnings) to external debt due to lower costs and risks. Future theoretical development should consider incorporating firm-specific contexts, especially in developing markets like Kenya, where capital access and financial maturity differ from those in developed economies. Scholars should also consider longitudinal and sector-specific studies to expand understanding of how capital

structure dynamics evolve over time and affect firm performance across different economic cycles.

In summary, this study proposes that the holistic approach to capital structure—considering internal reinvestment, shareholder capital, and cautious borrowing—can enhance firm profitability and financial sustainability. 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.

5.4 Limitation of the study

The study is restricted to companies classified under the Commercial and Services Sector on the NSE. Sectors such as agriculture, manufacturing, banking, and insurance are not considered, in order to ensure a concentrated and consistent sample for more precise comparisons and analysis within the targeted industry.

The research centers on the way capital structure (which is measured by retained earnings, share capital, debt and equity) relates to financial performance as shown by ROA. The analysis does not use metrics such as ROE, EPS, NPM, OPM and market share. A quantitative design is chosen and secondary data come from company financial statements and annual reports. Since researchers want to stay focused on financial information, avoided questions, interviews or other forms of primary data collection.

The focus of the geographical study is Kenya and it looks only at Firms on the NSE. Firms that are not on the exchange or are not active in Kenya, are excluded. Information is studied from between 2020 and 2024 which allows the relationship

between capital structure and ROA to be seen in a current and meaningful way. Information depending on periods after that is left out.

Only secondary data is utilized, derived from publicly available financial statements and annual reports of the selected Firms. The study does not incorporate any primary data collection methods such as interviews or questionnaires, to ensure the use of accurate, audited financial information.

5.5 Suggestions for Further Studies

Given the scope and limitations of this study, several suggestions for further research can be made. Firstly, 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. This would provide a more robust dataset for generalization and enable the analysis of long-term trends in capital structure and performance. Moreover, researchers could examine the same variables across different sectors (e.g., manufacturing, agriculture, or technology) to compare the impact of capital structure components across industries with varied capital needs and financial risks.

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. Studies could also explore the mediating or moderating effects of firm size, governance practices, or macroeconomic factors (e.g., inflation, interest rates, and exchange rates) on the relationship between capital structure and firm performance. Incorporating such variables could offer a more comprehensive view of how internal and external factors jointly influence

financial outcomes, and could contribute significantly to the theoretical advancement and practical application of capital structure models in emerging economies.

REFERENCES

Abeywardhana, D. K. Y. (2020). Capital structure and profitability: An empirical analysis of listed manufacturing firms in developing economies. *Asian Journal of Finance & Accounting, 12*(1), 45–62.

Abor, J. (2020). The effect of capital structure on profitability: An empirical analysis of listed firms in Ghana. *African Journal of Economic and Management Studies, 11*(2), 241–256. https://doi.org/10.1108/AJEMS-07-2019-0282

Abor, J., & Biekpe, N. (2019). How does capital structure affect firm performance? Evidence from African markets. *African Journal of Economic Policy*, *26*(1), 14–29.

Abuamsha, M., & Shumali, S. (2022). Debt structure and its impact on financial performance: an empirical study on the Palestinian stock exchange. *Journal of International Studies*, 15(1), 211-229.

Agembe, A. J., Chesoli, J. W., & Ngacho, C. (2024). The Relationship between Retained Earnings and Financial Performance of Listed Non-Financial Firms: An Econometrics Examination. *Journal of Finance and Accounting*, *8*(7), 64–75.

Ahmed, R., & Bhuyan, R. (2020). Capital structure and firm performance in Australian service sector firms: A panel data analysis. *Journal of Risk and Financial Management*, *13*(9), 214.

Akingunola, R. O., Adekunle, O. A., & Adedipe, O. A. (2020). Capital structure decision and financial performance of listed manufacturing firms in Nigeria. *Journal of Accounting and Taxation, 12*(3), 41–52. https://doi.org/10.5897/JAT2020.0400

Akpokerere, O. E., & Onatuyeh, A. E. (2023). effect of financial structure on financial performance of firms in Nigeria. *journal of the management sciences*, *60*(2), 13-26.

Ali, A., & Anwar, S. (2020). Capital structure and firm performance: Evidence from manufacturing firms in developing countries. *Journal of Economic Studies*, *47*(2), 241–260. https://doi.org/10.1108/JES-05-2019-0212

Almanaseer, S. (2024). The impact of equity financing on financial performance: Evidence from Jordan. *Foundations of Management*, 16(1):157-176.

Al-Najjar, B., & Belghitar, Y. (2021). Capital structure and firm performance under uncertainty: Evidence from the UK. *International Review of Financial Analysis, 76*, 101754. https://doi.org/10.1016/j.irfa.2021.101754

Ater, D. K., Iraya, C., Mwangi, M., & Okiro, K. (2020). the relationship between capital structure and value of nonfinancial firms listed at the Nairobi securities exchange, Kenya. *African Development Finance Journal*, *4*(2), 96-106.

Ayange, A., Emmanuel, N. C., Rosemary, I. H., Ndudi, U. C., & Samuel, U. E. (2021). Effect of capital structure on firm's performance in Nigeria. *Universal Journal of Accounting and Finance*, *9*(1a), 15-23.

Ayo, M., & Muba, S. (2021). An Assessment on the Influence of Capital Structure on Performance of the Listed Firms in Tanzania. *East African Journal of Business and Economics*, *4*(1), 1-13.

Berle, A., & Means, G. (1932). The Modern Corporation and Private Property Macmillan. *New York*, *2*(3), 45-53.

Bolarinwa, S. A., & Afolabi, B. (2022). The impact of internal financing on firm performance: Evidence from Nigerian listed companies. *Journal of African Financial Studies*, *14*(2), 101–118.

Boshinak, H. (2023). The impact of capital structure on firm performance: evidence from Saudi-listed firms. *International Journal of Disclosure and Governance*, *20*(1), 15-26.

Boussiki, H. (2023). The effect of capital structure on the financial performance of companies listed on the Algerian stock exchange: Case of the Saidal group. *Finance and Business Economies Review*, *7*(1), 258-270.

Brealey, R. A., Myers, S. C., & Allen, F. (2020). *Principles of corporate finance* (13th ed.). McGraw-Hill Education.

Brigham, E. F., & Ehrhardt, M. C. (2022). *Financial management: Theory & practice* (16th ed.). Cengage Learning.

Câmara, R. M., Caby, J., & Salvador, P. I. C. A. (2022). The effects of capital structure on profitability in the Brazilian electricity sector. *International Journal of Governance and Financial Intermediation*, *1*(3), 203-218.

Chebii, C., & Wasike, E. (2021). Equity financing and financial performance of listed firms in Kenya. *International Journal of Finance and Accounting*, *6*(2), 85–93.

Chisti, K. A., Ali, K., & Sangmi, M. (2019). Impact of capital structure on profitability of listed companies (evidence from India). *The Business & Management Review*, *10*(3), 124–133.

Cooper, D. R., & Schindler, P. S. (2024). *Business research methods*. London: McGraw-Hill Education.

Dahmash, F. N., Alshurafat, H., Hendawi, R., Alzoubi, A. B., & Al Amosh, H. (2023). The retained earnings effect on the firm's market value: Evidence from Jordan. *International Journal of Financial Studies*, 11(3), 89.

DeAngelo, H. (2022). The Capital Structure Puzzle: What Are We Missing? *Journal of Financial and Quantitative Analysis*, *57*(2), 413–454.

Do, T. T. (2020). The Relationship Between Capital Structure and Firm Performance: The Case of Vietnam Material Enterprises. *Research Journal of Finance and Accounting*, *11*(12), 194-198.

Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management, 16*(1), 49–64.

Dudycz, T. (2021). Does share capital mater for company performance? *Economic Research-Ekonomska Istraživanja*, 35(1), 1-25.

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review, 14*(1), 57–74.

Evbayiro-Osagie, E. I., & Enadeghe, I. B. (2022). Capital structure and performance of non-financial firms in Sub-Sahara Africa. *International Journal of Finance Research*, *3*(1), 49-62.

Ezirim, C. B., Ezirim, U. I., & Momodu, A. A. (2020). Capital Structure and Firm Value: Theory and Further Empirical Evidence from Nigeria. *International Journal of Business, Accounting, & Finance*, *11*(1), 321-327

Farhan, N. H., Tabash, M. I., Alsamhi, M. H., & Yahya, A. T. (2020). The relationship between capital structure and firm performance: empirical evidence from Indian service sector. *International Journal of Sustainable Economy*, *12*(2), 140-162.

Fauzi, R. A., Achsani, N. A., Andati, T., & Anggraeni, L. (2022). The effect of capital structure on telecommunication firm performance: an international evidence. *International Journal of Finance & Banking Studies (2147-4486)*, *11*(2), 98-108.

Fosu, S. (2019). Capital structure and firm performance: Evidence from African economies. *Research in International Business and Finance*, *47*, 104–116. https://doi.org/10.1016/j.ribaf.2018.07.005

Frank, M. Z., & Goyal, V. K. (2003). Testing the pecking order theory of capital structure. *Journal of Financial Economics, 67*(2), 217–248.

Frank, M. Z., & Goyal, V. K. (2019). Capital structure decisions: Which factors are reliably important? *Financial Management*, *38*(1), 1–37.

Gathara, F., Mutwiri, N., & Aluoch, M. (2023). The effect of capital adequacy on the Value of Commercial Banks in Kenya. *International Journal of Business Management Entrepreneurship and Innovation, 5(*3), 55-69.

Githinji, K.R. (2020). Influence of share capital and preferred stock on financial performance of banks listed in the Nairobi Securities Exchange, Kenya. *American Journal of Strategic Studies*, 2(1), 15-27.

Githire, J., & Muturi, W. (2019). Capital structure and financial performance: Evidence from firms listed at the Nairobi Securities Exchange. *International Journal of Social Sciences and Information Technology, 5*(3), 71–82.

Graham, J. R., & Harvey, C. R. (2021). The theory and practice of corporate finance: Evidence from the field. *Journal of Financial Economics, 60*(2–3), 187–243.

Habibniya, H., Dsouza, S., Rabbani, M. R., Nawaz, N., & Demiraj, R. (2022). Impact of capital structure on profitability: panel data evidence of the telecom industry in the United States. *Risks*, *10*(8), 157.

Hayes,A.(2020).*Heteroskedasticity/*Investopedia. https://www.investopedia.com/terms/h/heteroskedasticity.asp

Hoa, N. T. K., & Huong, N. T. T. (2020). Determinants of Capital Structure in the Presence of Supply Chain Activities of Listed Construction Firms in Vietnam. *International Journal of Supply Chain Management*, *9*(5), 462-470.

Iqbal, M. M. (2022). The relationship between capital structure and firm performance: new evidence from Pakistan. *The Journal of Asian Finance, Economics and Business*, *9*(2), 81-92.

Jadah, H. M., Hasan, M. F., & Al-Husainy, N. H. M. (2021). Dynamic panel data analysis of capital structure determinants: Evidence from Iraqi banks. *Journal of Business Strategy, Finance and Management*, *2*, 102-114.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics, 3*(4), 305–360.

Jones, S.A., & Aruobogha, E.O. (2019). Effect of Debt Financing on the Corporate Performance: A Study of Listed Consumer Goods firms in Nigeria. *International Journal of Academic Accounting, Finance & Management Research (IJAAFMR)*, 3(5), 26-34.

Kibet, L. K., & Muturi, W. (2019). Capital structure and financial performance of listed firms in Nairobi Securities Exchange, Kenya. *International Journal of Business and Social Science, 10*(4), 34–42.

Kibiru, M., & Njeru, A. (2021). Effect of retained earnings on financial performance of manufacturing and allied firms listed in Nairobi Securities Exchange. *International Journal of Economics, Commerce and Management*, *9*(6), 22–38.

Koech, K.S. (2023). *The Effect of Capital Structure on Profitability of Financial Firms Listed at Nairobi Stock Exchange*. Published Thesis: Kenyatta University.

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

Lokwang, N.J., Gichure, J., & Oteki, B.E. (2018). Effect of retained profits on performance of supermarkets in Trans Nzoia County, Kenya. *International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)*, 5(2), 65-72.

Lomwai, S. P., & Ndede, F. W. (2023). Effect of Debt Leverage and Debt-Equity Leverage on Financial Performance of Commercial and Services Companies Listed at the Nairobi Securities Exchange, Kenya. *Journal of Finance and Accounting*, *3*(3), 32-47.

Maina, L., & Ishmail, M. (2019). Capital structure and financial performance of firms listed at Nairobi Securities Exchange in Kenya. *International Journal of Social Sciences and Information Technology, 5*(4), 45–60.

Manyanga, W., Kanyepe, J., Chikazhe, L., & Manyanga, T. (2023). The effect of debt financing on the financial performance of SMEs in Zimbabwe. *Cogent Social Sciences*, *9*(2).

Mardones, G.J., & Cuneo, R.G. (2020). Capital structure and performance in Latin American companies. *Economic Research-Ekonomska Istrazivania, Taylor & Francis Journals, 33*(1), 2171-2188.

Meshack, K. M., Winnie, N., Okiro, K., & Ochieng, D. E. (2022). The effect of capital structure on financial performance with firm size as a moderating variable of non-financial firms listed at the Nairobi Securities Exchange. *African Development Finance Journal*, *1*(2), 104-121.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), 261-297

Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: A correction. *The American Economic Review*, 53(3), 433-443.

Mujwahuzi G.V., & Mbogo C.J. (2023) Effects of Capital Structure on Business Profitability of Processing Enterprises Listed on the Dar es Salaam Stock Exchange, Tanzania. *Journal of Finance and Accounting*. Vol. 8, No. 4, 2020, pp. 165-171.

Mukoma, P.K., Kung'u, J. N., & Gichuhi, D. M. (2023). effects of capital structure on agency costs in commercial and services companies listed at the Nairobi securities exchange in Kenya. *European Journal of Economic and Financial Research*, *7*(4).

Mukumbi, M. C., Eugine, K. W., & Jinghong, S. (2020). Effect of capital structure on the financial performance of non-financial firms quoted at the Nairobi Securities. *International Journal of Science and Business (IJSAB)*, 4(4), 165-179.

Musyoka, A., & Muturi, W. (2019). Effect of capital structure on financial performance of small and medium-sized enterprises in Kenya. *International Journal of Economics, Commerce and Management*, *7*(4), 1–15.

Mutie, J.M., Muturi, W., & Njeru, A. (2019). Effect of Equity Finance on Financial Performance of Small and Medium Enterprises in Kenya. *International Journal of Business and Social Science, 10*(7), 113-130.

Mutua, L. M., & Atheru, G. K. (2020). Capital Structure and Financial Performance of Companies listed under Manufacturing and Allied Sector at Nairobi Securities Exchange in Kenya. *Journal of Finance and Accounting, 4*(1), 24-38.

Mwangi, L. W., Makau, M. S., & Kosimbei, G. (2019). The relationship between capital structure and performance of non-financial companies listed at the Nairobi Securities Exchange. *European Scientific Journal, 15*(10), 376–393. https://doi.org/10.19044/esj.2019.v15n10p376

Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of financial economics*, *5*(2), 147-175.

Myers, S. C. (1984). The capital structure puzzle. *The journal of finance*, *39*(3), 574-592.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13*(2), 187–221. https://doi.org/10.1016/0304-405X(84)90023-0

Nalianya, S. N., & Miroga, J. (2020). Determinants of financial performance of commercial banks in Kenya: Case of listed banks on the NSE. *The Strategic Journal of Business & Change Management*, *7*(3), 880-897.

Naranjo, P., Saavedra, D., & Verdi, R. S. (2022). The pecking order and financing decisions: Evidence from changes to financial-reporting regulation. *Journal of Accounting, Auditing & Finance*, *37*(4), 727-750.

Nazir, A., Azam, M., & Khalid, M.U. (2021). Debt financing and firm performance: empirical evidence from the Pakistan Stock Exchange. *Asian Journal of Accounting Research*, 6(3), 324-334.

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.

Ngoch, N. M., Tien, N. H., & Thu, T. H. (2021). The Impact of Capital Structure on Financial Performance of Logistic Service Providers Listed on Ho Chi Minh City Stock Exchange. *Pal Arch's Journal of Archaeology of Egypt/Egyptology*, *18*(2), 688-719.

Nguyen, T. H., & Nguyen, H. M. (2020). Equity financing and firm performance: Empirical evidence from Vietnam. *Asian Economic and Financial Review*, *10*(6), 671–683. https://doi.org/10.18488/journal.aefr.2020.106.671.683

Nguyen, T., & Nguyen, H. (2020). Capital structure and firm performance of non-financial listed companies: Cross-sector empirical evidences from Vietnam. *Accounting*, *6*(2), 137-150.

Nini, N., Patrisia, D., & Nurofik, A. (2020). The Effect of Capital Structure on Company Financial Performance. *Jurnal Economia, 16*(2), 173-183.

Njoroge, P. M., & Kinyua, G. M. (2023). The relationship between capital structure and financial performance of firms listed on the Nairobi Securities Exchange. *African Journal of Finance, 17*(2), 105–120.

Njuguna, M., & Munene, C. (2020). Capital structure and firm performance: Empirical evidence from firms listed at the Nairobi Securities Exchange. *International Journal of Finance and Accounting*, *9*(4), 115–125.

Nyaga, R. M., & Deya, J. (2022). influence of capital structure on financial performance of construction and allied firms listed in Nairobi Securities Exchange in Kenya. *international journal of finance, 7*(2), 35-55.

Nyongesa, A. S., & Atieno, M. (2023). capital structure and profitability of large-scale retail supermarkets in Kenya. *European Journal of Economic and Financial Research, 7*(2).

Oboro, O. G., & Peter, S. A. (2021). Capital structure optimality and performance metrics of selected multinationals in Nigeria. *European Journal of Business and Innovation Research*.

Odero, R. O., & Mutswenje, V. S. (2021). Capital structure and financial performance of micro financial institutions in Nairobi City County Kenya. *International Academic Journal of Economics and Finance, 3* (7), 308-328.

Oganda, A. (2023). Equity Financing and Firm Value; Short Run and Long Run Dynamics: A Generalized Method of Moments Approach. *International Journal of Economics, 8*(1), 56-84.

Oganda, A. J., Museve, E., & Mogwambo, V. A. (2022). Analysis of retained earnings financing on financial performance of listed manufacturing and allied firms: A dynamic panel approach. *International Journal of Economics, Commerce and Management, 10*(2), 37-62.

Oke, O. M. & Fadaka, F. B. (2021). Capital structure and firm performance: Evidence from Nigerian consumer goods manufacturing firms. *Academy of Accounting and Financial Studies Journal*, 25(2), 1- 10.

Olaoye, F. O., & Dada, O. D. (2021). Effect of capital structure on financial performance of Agro-allied companies in Nigeria. *International Journal of Management (IJM), 12*(1).

Omai, M., D & Memba, F., S. (2018). The Effect of Share Capital Finance on Profitability of Petroleum Marketing Firms in Kenya. *International Journal of Economics, Commerce and Management, 6*(1), 410-422.

Omondi, D. M., & Muturi, W. (2022). Influence of capital structure on financial performance of firms listed at Nairobi Securities Exchange. *African Journal of Business Management, 16*(5), 110–117.

Omondi, E. A., & Muturi, W. (2020). Capital structure and financial performance: Evidence from listed firms in Kenya. *Journal of Finance and Investment Analysis, 9*(2), 43–55.

Omondi, M. M., & Muturi, W. (2020). The effect of retained earnings on financial performance of listed firms in the Nairobi Securities Exchange. *International Journal of Economics and Finance*, *12*(2), 52–60. https://doi.org/10.5539/ijef.v12n2p52

Omwoyo, J., & Memba, F. (2021). The effect of capital structure on financial performance of listed service firms in Kenya. *Journal of Accounting and Finance*, *11*(3), 89–102.

Onsongo, S. K., Muathe, S. M., & Mwangi, L. W. (2020). Financial risk and financial performance: evidence and insights from commercial and services listed companies in Nairobi securities exchange, Kenya. *International Journal of Financial Studies*, *8*(3), 51.

Onyuma, S. O. & Kibet, L. K. (2017). Does Economic Growth Influences the Relationship Between Financial Intermediaries and Securities Market Development in Kenya. *Journal of Economics and Sustainable Development, 8*(16): 19-30.

Onyuma, S. O. (2021). *Regulatory Reforms in the Kenyan Securities Market: Have They Achieved their Intended Objective of Market Development?* (forthcoming).

Potters, C. (2023). *VIF (VIF)*. Investopedia.

Ross, S. A., Westerfield, R. W., Jaffe, J., & Jordan, B. D. (2022). *Corporate finance* (13th ed.). McGraw-Hill Education.

Sabato, B.O., Wafula, F., & Agong, D. (2023). Effect of share capital and financial performance of tier three commercial banks in Kenya. *IOSR Journal of Economics and Finance, 14*(3), 54-62.

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

Shaik, M. B., Kethan, M., Rani, I., Mahesh, U., Harsha, C. S., Navya, M. K., & Sravani, D. (2022). Which determinants matter for capital structure? an empirical study on NBFC'S in India. *International Journal of Entrepreneurship*, *26*, 1-9.

Shikumo, H.D. (2021). Effect of Share Capital on Financial Growth of Non-Financial Firms Listed at the Nairobi Securities Exchange. *African Development Finance Journal*, 5(2), 25-44.

Sulaiman, A. S., & Khalid, K. M. (2024). Effect of equity capital on the financial performance of listed agricultural firms in Nigeria. *International Journal of Business and Allied Studies, 2*(2), 135–150.

Thuranira, M. G. (2024). *The effect of retained earnings on the returns of firms listed at the N.S.E*. Unpublished thesis.

Wahba, H. (2023). Debt and Financial Performance of SMEs: The Missing Role of Debt Maturity Structure. *Corporate Ownership and Control*, 10(3), 354-365.

Wambua, J. M., & Muturi, W. (2020). Effect of equity financing on the financial performance of manufacturing firms listed at Nairobi Securities Exchange, Kenya. *International Journal of Economics, Commerce and Management*, *8*(4), 102–118.

Wambua, J., & Ochieng, P. (2023). Financial resilience and performance of NSE-listed firms during COVID-19: The role of capital structure. *African Journal of Business Management*, *17*(1), 33–45. https://doi.org/10.5897/AJBM2023.9445

Wambugu, J. W., & Mwangi, M. (2023). Influence of retained earnings on financial performance of companies listed on Nairobi Securities Exchange. *African Journal of Business and Management Research, 12*(1), 45–59.

Wanjiku, S. N., & Muturi, W. (2020). Retained earnings and financial performance of listed firms in Kenya. *Journal of Finance and Investment Analysis*, *9*(3), 45–60.

Wanyonyi, C.F., Fwamba, R., & Wanyama, S.B. (2024). The Effect of Share Capital on Financial Performance: A Case Study of SACCOs in Western Kenya. *Iconic Research and Engineering Journals*, 8(1), 162-167.

Wanzala, R. W., & Obokoh, L. (2024). The Effects of Working Capital Management on the Financial Performance of Commercial and Service Firms Listed on the Nairobi Securities Exchange in Kenya. *Risks, 12*(8), 119. https://doi.org/10.3390/risks12080119

Waweru, N. M., & Kisaka, E. S. (2022). The influence of equity structure on financial performance of firms listed on the Nairobi Securities Exchange. *African Journal of Finance and Management, 18*(3), 123–139.

Westerlund, A. (2020). *Capital structure and firm Performance-Evidence from European listed firms*. University of Helsinki.

Yator, J., & Gitagia, F. (2023). Effect of equity financing on the financial performance of manufacturing firms listed in Nairobi Securities Exchange. *International Academic Journal of Economics and Finance, 3*(9), 426-436.

Yegon, C., Cheruiyot, J., Sang, J., & Cheruiyot, P. (2021). The Effects of Capital Structure on Firm's Profitability: Evidence from Kenya's Banking Sector. *Research Journal of Finance and Accounting*, *5*(9), 66-69.

Yemi, A. E., & Seriki, A. I. (2018). Retained Earnings and Firms' Market Value: Nigeria Experience. *The Business & Management Review*, 9(3), 482-496.

Yuan, B., & Motohashi, K. (2022). The impact of capital structure on firm performance in Asia's emerging markets. *Journal of International Financial Management & Accounting, 33*(2), 145–162.

Yugi, W. B., & Wekesa, M. (2023). Capital structure and financial performance of manufacturing companies in coast region, Kenya. *The Strategic Journal of Business & Change Management*, 10 (2), 1122 – 1140.

APPENDICES

Appendix I: Commercial and Services Companies listed at Nairobi Securities Exchange

Serial Number	Name of the Firm
1.	Sameer Africa Plc
2.	Kenya Airway Ltd
3.	Nation Media Group
4.	TPS Eastern Africa (Serena) Ltd
5.	WPP Scan Group Ltd
6.	Nairobi Business Venture Ltd
7.	Longhorn Publisher Ltd
8.	Express Kenya Ltd
9.	**Standard Group Ltd**
10	**Uchumi Supermarket Ltd (closed)**
11	**Deacons Ltd (ceased operations in Kenya)**

Note:

Uchumi supermarket Ltd and Deacon Ltd were found not to be in operation for the period of data collection for this study.

- From the available public data, some of the statistics examined for Standard Group Ltd were not available. Therefore, the company was also not included in the final analysis.

Appendix II: Data Collection Sheet

S/NO	Firm	Year	Return on Assets	Retained Earnings (Millions)	Share Capital (Millions)	Total Debt (Millions)	Equity (Millions)			
1.	C01	2020/2024	7.07	-933.20	1390.00	995.00	284.20			
2.	C02	2020/2024	3.28	138444.00	5820.00	255800.00	138444.00			
3.	C03	2020/2024	1.45	6019.82	518.50	1787.56	3273.02			
4.	C04	2020/2024	-.78	6000.00	182.00	3300.00	8660.00			
5.	C05	2020/2024	-2.76	-1372.18	432.16	139.53	5179.80			
6.	C06	2020/2024	-.12	-109.02	463.06	62.77	399.83			
7.	C07	2020/2024	-3.96	144.80	272.00	1900.00	729.80			
8.	C08	2020/2024	-3.12	-495.19	238.56	315.32	470.57			
9.										
10.										
11.										

Appendix III: University Research Letter

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA
A.M.E.C.E.A

SCHOOL OF BUSINESS & ECONOMICS
Department of Graduate Business Studies

P.O. BOX 62157 00200 Nairobi – KEI
Tel: 020-2525811-5, 8890023-4,
Email: gbs@cuea.edu or hodgbs@cuea.edu
Website: www.cuea.edu

Our Ref: CUEA/SoBE/GBS/JM/mba.rec/362/2024

3rd December 2024

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: SUSAN WAIRIMU MUGO. – REG NO: 1029388

The above named is a student at The Catholic University of Eastern Africa, Nairobi—Kenya, in the School of Business & Economics, Department of Graduate Business Studies. She is pursuing Master of Business Administration degree (Finance Option).

As part of the MBA degree requirements, the University expects the student to write a research thesis. Susan requires your assistance in carrying out her research study by providing her with a research permit and/or the necessary information. Her thesis is entitled ***"Capital Structure and Firm Performance of Listed Firms at NSE: A Case of Commercial & Services Firms".***

Any assistance accorded to Susan will be highly appreciated. All the information provided will be used purely for academic purposes and will be treated with utmost confidentiality.

Thank you.

Yours faithfully,

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA
H.O.D.
05 DEC 2024
GRADUATE BUSINESS SCHOOL
P. O. BOX 62157 - 00200, NAIROBI

Dr. Joseph Macheru, PhD., CPA-K
HEAD OF DEPARTMENT – GRADUATE BUSINESS STUDIES

Appendix IV: Research License

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