CAPITAL STRUCTURE, FIRM SIZE AND FINANCIAL PERFORMANCE OF COMMERCIAL AND SERVICES FIRMS LISTED ON THE NAIROBI SECURITIES EXCHANGE, KENYA

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DECLARATION AND RECOMMENDATION

Declaration

This Thesis is my original work and it has never been presented for an award of diploma or conferment of degree in any University or institution.

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Recommendation

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DEDICATION

To the almighty God be the glory for giving me wisdom and strength throughout the period of writing this work. Special dedication goes to my parents Mr. and Mrs. Ignatius Njeru for supporting me in my schooling journey. I also dedicate this thesis to my beloved siblings; Marios, Agnes, Mary, Susan, Lilian, John, Hellen, George, David, and James for the encouragement and motivation that they gave me while writing this research.

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ABSTRACT

The capital structure and size of a corporation are two of the most important factors that affect its financial performance when it is listed on a capital market. To help the firm grow and become financially stable, there should be a good mix of debt and equity in its capital structure. The present study aimed to elucidate the relationship between capital structure and the financial performance of commercial and service organizations listed on the Nairobi Securities Exchange in Kenya, as influenced by firm size. The study's premise aimed to determine the impact of equity capital and long-term debt financing on the financial performance of commercial and service enterprises listed on the Nairobi Securities Exchange. Additionally, the moderating effects of firm size on the relationship between capital structure and financial performance, as well as the independent impacts of equity financing, long-term debt financing, and firm size on the financial performance of commercial and service firms listed on the Nairobi Securities Exchange, were evaluated and established. The research utilized the Modigliani-Miller, trade-off, agency, and pecking order theories to elucidate the managerial decisions concerning the enterprises' capital structure. The present study utilized a descriptive cross-sectional research approach. The target population consisted of 13 services and commercial enterprises registered on the Nairobi Security Exchange. The secondary data was gathered via a data collection sheet pertaining to the audited financial statements of the companies from 2015 to 2024. We used STATA software version 18 to look at the data in both descriptive and inferential statistics. The panel data regression analysis was utilized to ascertain the correlation between the variables, and the hypothesis was evaluated at a 5% significance level using the t-statistic and the F-statistic. The results were shown in tables and charts. The results showed that both total equity and long-term debt have statistically significant negative effects on financial performance, with coefficients of –0.077 ($p < 0.001$) and –0.185 ($p = 0.002$), respectively. This indicated that a greater extent of equity financing and long-term debt correlates with deteriorated financial performance, potentially due to elevated financial costs or an ineffective capital structure. company size exhibited a negative coefficient (–0.045); however, the association lacked significance at the 5% level ($p = 0.087$), suggesting that the influence of company size on performance is either minimal or indeterminate within the model. So, the results demonstrated that relying too much on outside funding, whether it's equity or debt, could hurt a company's success. The study suggested that businesses should be careful and find a balance when making decisions on how to finance themselves. Both equity financing and long-term debt have big negative consequences on financial performance, therefore managers shouldn't rely too much on either type of capital. Instead, companies should try to optimize their capital structure by keeping the right balance of internal and external funding that keeps costs low and returns high. The present study is expected to assist regulatory entities, including the Capital Markets Authority (CMA) and the Nairobi Securities Exchange (NSE), in the formulation and execution of policies.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

BRCK	:	Bringing Rural Connectivity Kit
CDSC		Central Depository and Settlement Corporation
DCF	:	Discounted Cash Flow
EMES	:	Emerging Markets Equity Strategy
EPS		Earnings Per Share
GDP	:	Gross Domestic Product
GPM	:	Gross Profit Margin
IRR	:	Internal Rate of Return
MFIs		Micro Finance Institutions
M&M	:	Modigliani and Miller Theory
MPS	:	Market Price Per Share
NPV	:	Net Present Value
NSE	:	Nairobi Securities Exchange
PLC	:	Public Limited Company
ROA	:	Return on Assets
ROE	:	Return on Equity
ROI	:	Return on Investment
SWVL	:	Swvl Inc. (It's an Egyptian transportation network company)
WACC	:	Weighted Average Cost of Capitals

CHAPTER ONE
INTRODUCTION

1.1. Background of the Study

Commercial and services companies listed at the Nairobi Stock Exchange (NSE) play a pivotal role in the Kenyan economy by contributing to employment opportunities, generate tax revenue, and stimulate the capital market to promote economic growth. These companies operate in diverse sectors such as retail, transportation, telecommunication, hospitality, and trade services, making them central to the functioning of the urban and national economy (Essel,2023). Consequently, their importance in the national and urban economies remains substantial. Nevertheless, the financial success of a large number of these companies has fluctuated over time. Over the years, however, the financial performance of many of these firms has been erratic, with a number of companies reporting declining profits, increased debt burdens, and in some cases, suspension or delisting from the exchange. The instability in financial outcomes raises concern about the underlying financial strategies and structural decisions that shape their operational sustainability and market competitiveness (Brusov, *et al*., 2021).

The problem of fluctuating financial performance among these firms is of concern in the context of their strategic importance. In the commercial and services sector, several publicly traded companies have reported a reduction in shareholder value, a decline in returns on equity and assets, and persistent inefficiencies in managing necessary operating expenses (Corvino et al., 2022). Poor company-level plans, external economic shocks, a lack of equity capital, and the usage of bad debt are some possible causes. Despite the fact that many of these companies operate in regulated markets that promote transparency and good governance, they find it difficult to optimize their capital structure and make the required corrections to their financial performance.

In recent international study, the complex relationship between capital structure, company size, and financial success in different countries has been studied. A statistically significant direct correlation between total debt ratios and market share was discovered by Mansour et al. (2023) using 830 firm-year records; the effect was stronger in larger enterprises.

According to Abang'a et al. (2024), who analyzed 144 manufacturing companies that were listed on the Indonesia Stock Exchange between 2018 and 2021, firm size and financial performance both raise firm value, with capital structure playing a significant role. To investigate the relationship between capital structure and business value in Vietnam, Nguyen et al. (2023) used data from 769 enterprises between 2012 and 2022. They discovered that the link was not monotonic and that both market and firm-specific characteristics had an impact. In a 2021 study on the capital structures of Sri Lankan firms, Ravindran and Kengatharan concluded that both the static trade-off theory and the pecking order hypothesis are better fitted to the country's capital financing practices. Aulia and Gandakusuma (2020) used information from 26,395 firms across 40 countries to provide evidence on the static trade-off theory. Muigai, 2016 documented temporal differences in the capital structure of firms and industries, while Alkurdi and Mardini, 2020, observed significant changes in the debt component of the firms' capital structures, including for identical firms. The results of the studies reviewed so far indicate that business size and capital structure are highly valued in various economic contexts when considering financial performance.

1.1.1 Capital Structure

A firm's capital structure is the level of debt and equity it utilizes in financing its activities and growth. It indicates the proportion of various sources of funds, such as equity finance, which encompasses common and preference shares, besides retained profits, and debt finance, which encompasses long-term bonds and loans (Mauwa et al. 2016).Capital structure is one of the most crucial aspects of financial management and significantly impacts the business's performance. In order to make prudent decisions, legislators, managers, and investors need to have a clear understanding of this relationship. Businesses that have higher operational efficiency will maximize the benefits of their capital structure decision by being able to manage portfolio risk and thereby adjust the structure as needed (Meshack et al., 2022). This empirical result thus supports the trade-off hypothesis of capital structure, which postulates that companies decide on their funding mix based on their level of efficiency. According to Omukaga (2017), the relationship

existing between the capital structure and performance of a company is determined by the amount of debt assumed and the level of bankruptcy costs.

Capital-structure choices are thus considered vital managerial choices as they have consequences for the risk and return of shareholders (Ngure 2020). The choice of long-term capital structure is normally made by the board of directors and top finance experts, while liquidity issues pertain to the needs of ongoing operations. An optimal capital structure can have an effect on investment decisions as it reduces the firm's cost of capital and improves its profitability and market value. According to Ngure (2020), a reduction in the firm's cost of capital can enhance its value. A business can either be unleveled, meaning it is fully financed by equity, or levered which means using both debt and equity to finance its operations (Chepkwony, 2018). However, there are few businesses that are fully financed by debt due to the fact that investors always want some equity ownership. The capital structure is of great importance for any business since it helps to attain maximum shareholder value and ensures long-term performance of the company (Audi, 2022). An organization should balance its levels of debt and equity to minimize the cost of capital and maximize returns (Audi, 2022). When the level of debt in the capital structure exceeds a certain point, the financial viability of a firm may be affected and lead to disputes among shareholders. In the long run, the failure of a company is because of an inappropriate financial structure that does not support success and growth. Both debt and equity funding can make up the capital structure

According to Lerner and Leamon, 2023, equity financing can be defined as the interest that shareholders have in the company's assets after deducting its obligations. Equity in financial statements is represented by common stock-share capital, retained earnings, capital surplus preferred stock, and reserves. When starting up a business, it often requires more stock than debt. However, as it grows, the tendency is also to take on more debt. Accordingly, some businesses have great growth potential, whereas others have weak growth prospects and some have no development potential at all. In the present study, equity financing was conceptualized by the equity ratio, which was computed by dividing total equity into total assets.

The debt of a company comprises short-term and long-term borrowing. Short-run debts are utilized to meet urgent financial requirements. Long-term debt, on the other hand, are used to finance projects over an extended period of time. According to Yasar (2021), this type of long-term borrowing generally comes with an agreement between the borrower and the lender that outlines the interest rate and the schedule of repayments. The debt of a company comprises short-term and long-term borrowing. Short-run borrowings are utilized to meet urgent financial requirements. Long-term borrowings, on the other hand, are used to finance projects over an extended period of time. According to Yasar (2021), this type of long-term borrowing generally comes with an agreement between the borrower and the lender that outlines the interest rate and the schedule of repayments. According to the pecking order concept, companies should use debt financing only as a last resort when all other possibilities for internal and equity funding have been exhausted (Yasar, 2021). This theory holds that there is no perfect capital structure because the decision to take on debt is based on the company's financing history throughout time. The conceptualization employed in this study was the debt ratio, which was computed by dividing the total amount of long-term debt by the total quantity of assets.

1.1.2 Firm Size

The size of a business unit can be compared to the size of the company. It relates to the size or amount of commerce that one organization undertakes, claim Kumar et al. (2019). The total value of a company's assets is directly reflected in its size. Due to fast sales growth and a lack of asymmetric information, large companies are able to finance their operations easily. Larger companies might take on greater debt, as the possibility of bankruptcy is lower. A company's size has a big impact on its value because larger companies usually enjoy the benefits of economies of scale. For example, purchasing prices are generally higher for larger enterprises (Zadeh and Eskandari, 2018). In addition, the size of a business can discloses its potential for growth, which might raise interest in its goods among customers.

The size of an organization may be measured by the total number of employees, as well as sales and return on total assets, among other parameters. Li et al. (2022) note that this study operationalizes total asset size to accommodate the different asset bases of financial organizations. The study perceives size to be a moderating variable, considering that large organizations usually experience superior endowments of resources, diversified bases of assets, and more effective governance arrangements. Such attributes have the potential to enhance the value of a firm through superior risk management and strengthened investor confidence. In this regard, the study offers meaningful insights into the differing ways through which governance structures affect business valuation in large and small financial institutions, hence informing stakeholders and policymakers in developing appropriate governance frameworks.

A company's size has a significant role in financial decision-making, particularly with regard to the moderating impact that connects capital structure and financial performance. Larger companies have easier access to capital markets, can benefit from economies of scale, and can make money in a variety of ways. These factors might affect how capital structure and performance are related. Larger companies can take on more debt without substantially hurting their financial status because they frequently face fewer bankruptcy risks (Rajan and Zingales, 1995). This suggests that financial performance may be impacted if excessive leverage is used to offset corporate expansion. Larger companies also tend to have more strategic capital structures that match long-term financial goals and decision-making processes (Titman & Wessels, 1988).

Several empirical studies have focused on the role of business size as a moderator in the determinants of capital structure and financial performance. Frank and Goyal (2009) concluded that business size is a significant determinant of the relationship between leverage and profitability. They also found that the debt level and financial performance relationship is much more stable and positive for larger businesses. Abor (2005) analyzed companies in developing economies and came to the conclusion that the size of the firm determines the extent at which capital structure impacts firm value. For example, smaller businesses had to be more conservative while taking on debt due to their limited access to

credit and higher interest rates while large enterprises utilized more leverage to generate more profit.

Other financial performance indicators influenced by firm size include return on equity and return on assets. Due to their bargaining power, low transaction costs, and higher efficiency level in operation, large companies are in a better place to have good ROA and ROE than the small ones (Happsoro and Falih, 2020). The larger firms may optimize their financing mix better than the smaller firms; Reschiwati et al. (2020) find a positive moderating relation between firm size and the capital-structure-profitability nexus. A study of this issue in the Kenyan context by Mutuku and Wachira (2018) finds that firm size is a critical factor that determines the extent to which capital-structure choices affect the financial performance of companies listed on the Nairobi Securities Exchange. It follows then that the size of the business significantly impacts the nature of the relationship between capital structure and financial success. Larger firms, having more stable finances, better governance structures, and easier access to financing, are more adept at handling leverage than their smaller counterparts. Since it has been proven that capital structure affects financial performance to varying extents, depending on the size of the firm, this is a vital issue in corporate decision-making and financial management. The firm size was determined by the logarithm of the total assets in this study.

1.1.3 Financial Performance

A firm's ability to efficiently utilize its resources in generating income from its core business can be measured by its financial performance. Financial performance, according to Abdullah and Tursoy (2021), refers to an assessment done for a firm based on its financial attributes concerning its advantages and disadvantages. Financial performance measures such as profitability and liquidity, according to Kerosi (2018), give stakeholders a realistic way of measuring the firm's past financial performance, as well as its current status. Even though the Modigliani and Miller model may be theoretically sound, the bankruptcy costs are real and have a close relationship with the level of indebtedness of a company, which makes Yator and Gitagia (2023) argue that there is a relationship between capital structure and financial performance. The performance indicator should indicate

the cash which the shareholders have generated within a certain period, since the objective of investment in a company is to increase profits (Kerosi, 2018).

The metrics generally used to assess financial performance include ROE, ROA, and ROI, among others, which are based on both pre-tax and post-tax earnings (Bui et al., 2023). Shareholders can determine the financial performance of a business by comparing the beginning-period value of a firm to its ending-period value. Based on market data, this type of assessment relies on the analysis of financial statements, including income statements, cash-flow statements, and balance sheets.To determine whether or not a company is successfully maximizing the wealth of its shareholders, financial measures derived from these statements are utilized. Bui et al. (2023). Furthermore, it has been stated that the ratios can be utilized to assess a company's performance compared to others and monitor the performance of the company over time (Tretiakova et al. 2021). Financial leverage can negatively affect the firm's return on equity when the profits are more than the average interest rates (Tretiakova et al. 2021). Studies have also found a positive relationship between a firm's debt ratio and profitability. Further to the above, the relationship between debt and profitability affects specific industries.

Studies have also found a positive relationship between profitability and the total amount of debt as a percentage of the total financing package for the purchase. To determine whether or not a company is successfully maximizing the wealth of its shareholders, financial measures derived from these statements are utilized. Bui et al. (2023). Furthermore, it has been stated that the ratios can be utilized to assess a company's performance compared to others and monitor the performance of the company over time. They wish for their business to be successful, and thus they should use the profits made by the shareholders over a period to measure its success (Tretiakova et al. 2021). Financial leverage can negatively affect the positive impact of the firm's return on equity when the profits of its assets are more than the average interest rates on the loan (Tretiakova et al. 2021). Studies have found a positive relationship between a firm's debt ratio and profitability. Further to the above, the relationship between debt and profitability affects

specific industries. Studies have also found a positive relationship between profitability and the total amount of debt as a percentage of the total financing package for the purchase.

Mauwa (2017) looked into how the financial structure of companies listed on the national stock exchange related to their success. In order to determine the appropriate amount of debt, businesses weigh the advantages of the tax shield against the possible costs of financial hardship, according to the Trade-off Theory, which forms the basis of the assessment of financial performance. Businesses will foresee their tax obligations and approach borrowing in a balanced manner, the argument goes. Shareholders evaluate a company's financial performance by looking at how much wealth they have amassed over a specific time period, claims Kigen (2022). The income and balance sheet ratios or market price data might be used to illustrate this assessment. The research indicates that the figures also show how well the company can satisfy the goals of its owners, who wish to maximize their wealth. Additionally, they can be utilized to compare companies and analyze performance trends.

Performance measures should therefore show how investment choices affect shareholders' wealth. Companies have to choose how to get and use finance. The optimal debt-to-equity ratios for the business must be made clear by managers (Kirmi, 2017). Within the field of financial economics, the idea of capital structure which characterizes the ratio of debt to equity held by a business has been the subject of ongoing scholarly debate. The study's financial performance was operationalized through the computation of returns on assets (ROA), which is the ratio of the company's net income to its total assets.

1.1.4 Commercial and Services Firms Listed in the Nairobi Securities Exchange

One of Africa's top stock exchanges, the Nairobi Securities Exchange (NSE) is vital to the Kenyan economy by helping companies raise cash and offering possibilities for both individuals and institutions to invest (Ater, 2021). Since its founding in 1954, the NSE has developed into a sophisticated and strictly regulated stock exchange. Even though it was a little market with mostly foreign businesses, it is progressively reaching its objectives as more local businesses have entered it since Kenya gained its independence in 1963. Kenya

Airways,Nation Media Group, and Uchumi Supermarkets were among the first corporations to join the exchange, and the commercial and services sector has played a significant role in this development (Doorasamy, 2021). This growth of the industry over the years reflects both the economic development of Kenya and also the emphasis on services rather than production. Economic liberalization policies adopted during the 1990s permitted foreign investments and privatisation, leading to this industry's evolution. That was when large firms like the Standard Group were listed and transformed Kenya's communications landscape too (Hussein, 2020). The 2000s witnessed an increase in the retail, hospitality, and digital services' industries, increasing the sector's relevance on the NSE. Businesses in the stock exchange and service sectors contribute significantly to Kenya's GDP currently and serve as indicators of economic metrics.

The choices of the capital structure of these companies have a significant impact on their financial success in particular. Most of the commercial and service-oriented companies listed on the NSE depend on debt and equity funds to finance their operations. However, excessive dependence on debt may render a company vulnerable to financial ruin, as has happened with other conventional media groups that are highly indebted and operate at low efficiency (Kerongo, 2022). However, even in periods of economic turmoil, businesses with a good capital structure, just like TPS East Africa Ltd, Serena Hotel, have managed to maintain their financial stability. Both internal and external factors influence the performance of commercial and service organizations in the market. The state of the economy, corporate governance procedures, and global market trends influence the stock prices of prominent companies such as Homeboyz radio (Lakens, 2017). During the periods of economic boom, these companies have larger stock valuations; however, a slump results in falling share prices. Indeed, emerging trends have indicated the way investor sentiments of service-based businesses are influenced by digitization. Inspired by changing perceptions among investors about consumption and technology-based needs for services, businesses adopting fintech, e-commerce, and other methods of digital payment gained major attention.

The business and services sector are some of the most dynamic and important sectors within the Kenyan economy. Policy makers, investors, and entrepreneurs can all benefit from research on the capital structure, company size, and financial performance of these businesses. Key arguments for concentrating on the sector are as follows. Commercial and service companies contribute a lot to Kenya's GDP through promoting commerce, creating jobs, and providing essential services such as retail, media, and transport. Economic policy aimed at enhancing corporate sustainability and economic resilience needs to be informed by the way these firms manage capital and maintain their profitability. Businesses in this industry face specific financial challenges, including fluctuating customer demand, competition from multinational corporations, and economic shocks like inflation and currency devaluation. Based on this framework, the paper evaluates the investment risks and opportunities in the NSE through an analysis of the ways in which firm size influences the relationship between capital structure and financial performance. The NSE has witnessed both prosperous and troubled businesses in the commercial and services sector of the economy. From the past failures-like the fall of Uchumi-and some of the successful models-like Nairobi Business Ventures Ltd.-there is much to be learned that could help future firms adopt better financial management methods.

Several incidents have brought to the fore the need to investigate how business characteristics and capital structure influence the financial performance of commercial and services firms listed on the Nairobi Securities Exchange. For example, Uchumi Supermarkets Plc has experienced double financial crisis due to overdependence on loan financing and poor management, which have made the firm bankrupt and shut down operations several times in the past. On the other hand, Kenya Airways Plc is burdened by much debt due to the aggressive expansion financed by heavy borrowing. For example, continuous losses have eroded shareholders' wealth despite many government bailouts. The collapse of unlisted Nakumatt Holdings also offers a quite useful window into the financial fragility of business in the industry, given that all public firms have problems of poor management of working capital and heavy over-dependence on short-term financing. Poor governance, liquidity, and ineffective capital structures have seen small-cap firms like Atlas Development & Support Services Ltd and A. Baumann Co. Ltd either struck off

listings or performing appallingly. The persistence of legislative and regulatory deficiencies in Kenya's capital market, which hinder access to affordable long-term finance, while growth in new listings remains slow, are additional challenges that demonstrate the need for further research into this area. To enhance the sustainability and competitiveness of firms listed on the NSE, their corporate financial strategies and policy interventions need to be cognisant of how equity financing and long-term debt interact to influence financial performance in concert with firm size. Even though commercial and service companies listed on the Nairobi Securities Exchange are crucial to Kenya's economy, many of them have financial sustainability issues as a result of poor capital structure choices. While some businesses are able to improve their financial performance by finding the ideal balance between debt and equity, others experience financial difficulties as a result of either low funding or excessive leverage. Since larger businesses typically benefit from scale economies and easier access to credit than smaller businesses, firm size is another important factor in determining financial stability. It is unclear, therefore, if business size moderates the relationship between capital structure and financial performance. There is a research deficit in the commercial and services sector because the majority of the literature on capital structure and business performance that focuses on Kenya has focused on the banking and manufacturing industries. With implications for financial decisions and policy formulations, the current study aimed to investigate the impact of business size and capital structure on the financial performance of commercial and services organizations listed on the NSE.

1.2 Statement of the Problem

Kenya's economy is largely dependent on commercial and service businesses, yet the financial performance of many of those listed on the NSE is declining. This is exemplified by slow returns on assets, which fell from 10.15 percent in 2017 to just 5.9 percent in 2021. Poor economies of scale, wasteful resource use, and excessive debt have all had an impact on this. For instance, it took Kenya Airways a number of years to resolve its debt issue before it could resume its regular operations in 2023. On the other hand, companies like TPS East Africa Ltd (Serena Hotels) have shown much higher average ROA and ROE, indicating that favorable business size and capital structure may be essential for attaining

superior financial results. Such disparate performances raise questions as regards the influence of firm size and capital structure on the financial viability of the commercial and services sector. One research gap that this study may help to fill is the lack of clear empirical prediction on the relationship between capital structure decisions (diversity using debt financing versus equity financing) and business size and how they impact a firm's performance. Investors should understand which financial methods result in long-term profitability, and management should be informed about how to balance debt and growth. Data-based research should also be used by regulators and policymakers such as the Capital Markets Authority to make decisions that promote the NSE's expansion and transparency. As a result, this study looked at how firm size and capital structure impact financial performance in commercial and services sector companies listed on the NSE, mainly as indicated by ROA and ROE. The results ought to provide useful suggestions for businesses' strategic financial management as well as policy consideration.

1.3. Objectives of the Study

The general objective of the study was to establish the effect of capital structure and firm size on the financial performance of commercial and services firms listed at the Nairobi Securities Exchange in Kenya.

1.3.1. Specific Objectives

The study has focused on the following specific objectives:

i. To determine effect of equity financing on financial performance of commercial and services Firms listed on the Nairobi Securities Exchange in Kenya.
ii. To determine effect of long-term debt financing on financial performance of commercial and services Firms listed on the Nairobi Securities Exchange in Kenya.
iii. To assess moderating effect of firm size on relationship between capital structure and financial performance of commercial and services Firms listed on the Nairobi Securities Exchange in Kenya.
iv. To evaluate the joint effect of equity financing, debt financing and Firm size on financial performance of commercial and services Firms listed on the Nairobi Securities Exchange in Kenya.

1.4. Hypotheses

HO_1: Equity financing has no significant effect on financial performance of commercial and services Firms listed in the Nairobi Securities Exchange in Kenya.

HO_2: Long term debt financing does not have significant effect on financial performance of commercial and services Firms listed on the Nairobi Securities Exchange in Kenya.

HO_3: There is no significant moderating effect of firm size on relationship between capital structure and financial performance of commercial and services Firms listed on the Nairobi Securities Exchange in Kenya.

HO_4: Jointly, equity financing, long term debt financing and firm size have no statistically significant effect on financial performance of commercial and services firms listed on the Nairobi Securities Exchange in Kenya.

1.5. Significance of the Study

It is predicted that this study will reveal vital new information regarding how to leverage a company's capital structure to improve its financial performance. Investors and stockholders would base their investment decisions on financial performance metrics. By examining how different capital structure options affect market value and profitability, the study was able to look into the relationship between risk and reward in business and service businesses. In order to help investors make informed decisions, it might also look at how the firm's size affects stability and investment appeal. The financial health of listed firms was significantly impacted by entities such as the Nairobi Securities Exchange (NSE) and the Capital Markets Authority (CMA). The study's findings would provide empirical evidence for corporate governance, disclosure standards, and debt management laws in order to encourage transparency and long-term financial behavior. Furthermore, this study will contribute to the advancement of scholarly knowledge by offering industry-relevant data and a model for upcoming corporate finance research

1.6 Scope of the Study

The capital structure and financial performance of commercial and service firms listed on the Nairobi Security Exchange in Kenya were the main subjects of this study. Because of its reliable data and listed commercial and service companies that generated audited financial statements, the Nairobi Securities Exchange was selected as the study's site. These company websites provided the information needed for the study. There are also differences in the financial performance of commercial companies and services that are listed on the NSE. A shortage of funds and poor resource management caused Uchumi Supermarket to fail, and Kenya Airways reported a net loss of KSH 38.2 billion in 2022 (Njenga et al.,2023). The ratios of total equity to total assets and total long-term debt to total assets served as the study's independent variables. Return on assets (ROA), a measure of financial success, was the dependent variable. The impact on the correlation between capital structure and financial performance was further evaluated by using firm size as a moderator. The study runs from 2015 to 2024, a ten-year period. Enough data was available over this time frame to thoroughly investigate the relationship between capital structure and long-term financial performance. Because unlisted companies, banks, and manufacturing firms may have different financial and regulatory frameworks, the inquiry looked at companies in the commercial and services sectors that were listed on the NSE.

1.7 Limitations of the Study

The primary limitation of the study was the availability of comprehensive secondary data for each firm. However, the study might have been impacted by the existence of incomplete or missing data, which restricted the use of secondary data. This was avoided by ensuring that the data collection form had all required variables.

1.8 Assumptions of the Study

The research was conducted using the audited financial statements and accounts of the chosen companies since it was believed that they accurately represented their capital structure and financial performance. It was anticipated that both the companies' corporate governance systems and the capital structure (debt and equity financing) would be favorably connected with visible financial outcomes. In order to facilitate authentic comparisons, the study assumed that external market circumstances, including industry

regulations and economic stability, would persist for a decade. In this investigation, the following assumptions were made: the variance of the data is homoscedastic, normal, and independent. Furthermore, a linear association between the independent and dependent variables was assumed in the study.

1.9 Operational Definition of Terms

Capital Structure	The mix of debt and equity that a business uses to fund its operations and expansion. It shows the percentage of a business's funding that comes from equity (like stocks or retained earnings) and debt (like bonds or loans).
Equity Financing	The process of raising funds through the sale of shares of ownership in a company. Although regular interest payments and principal repayment are not necessary for equity financing, shareholders are entitled to the company's assets and profits.
Financial Performance	The measure of a company's overall health and ability to generate revenue, grow, and provide value for its owners. Among the financial ratios and indicators that are included are revenue growth, profitability, return on equity, and earnings per share.
Firm Size	Refers to a company's size, which is determined by its volume, number of employees, and total assets.
Long-term debt Financing	Raising money through borrowing, usually in the form of bonds or loans, for a business's operations or growth. With debt financing, the business must pay back the principal amount over a predetermined time period and make regular interest payments.

CHAPTER TWO
LITERATURE REVIEW

2.1 Empirical Literature

The empirical research on capital structure, firm size and financial performance was reviewed on this chapter. It also provided a critic of the empirical literature in a funnel approach.

2.1.1 Capital Structure and Financial Performance

Putri and Rahyuda (2020) studied the relationship between capital structure, sales growth, and firm value of Indonesian listed businesses, using profitability as the mediating variable. The study investigated whether the relationship between capital structure, sales growth, and firm value is mediated by company profitability. A quantitative research design was used to analyze the sampled organizations' financial data. The impact of capital structure on business value was investigated using statistical modeling techniques and the debt/equity ratio as a finance indicator. The results suggest that excessive debt financing is likely to destroy market value and investor trust because a company's capital structure has a significant impact on value. However, it also documented a positive relationship between sales growth and firm valuation, meaning entities with bigger sales are held in high regard. This research gap is filled by the present study, given that company size is used as a mediating variable between capital structure and financial performance, while other studies used profitability as a moderator of the relationship between capital structure, sales growth, and firm value. Company size, expressed either in terms of assets, revenues, or market share, is an important factor when analyzing how capital structure decisions affect profitability.

Brusov et al. (2022) conducted a study on corporate governance and capital structure in Russia by combining theoretical models with actual data. Regression studies showed that a high debt-to-equity ratio, while increasing efficiency and thus maximizing shareholder wealth, creates liquidity problems. The study concluded that an appropriate capital structures that combine debt and equity facilitate corporate governance and performance. Practical implications of the topic include maximizing shareholders' wealth and reducing agency costs by utilizing an efficient structure that balances debt and equity. Although

this is not usually the case for start-ups or small businesses, the study assumed that all organizations have the relevant resources to achieve this balance. Since this study was being conducted in Russia, the follow-up study bridged a geographic gap by looking at companies listed on the Kenyan Stock Exchange (NSE). Given the institutional, corporate, and capital availability differences between Kenya and Russia, such findings may thus not be generalizable.

Fauzi et al. (2022) examined the impact of capital structure on the performance of the telecom sector across jurisdictions. Its main objective was to evaluate the impact of debt and equity financing decisions on the major financial performance indicators. As part of a quantitative research technique, the authors focused on financial data about telecom companies operating in multiple international marketplaces. Regression analysis was used to assess the performance metric variables such as EPS, ROA, and ROE, which correspond to the capital structure variables such as debt-to-asset and debt-to-equity ratios. The results showed that the extent of financial leverage manifested by these organizations had an effect on their capital structure performance. Research on commercial and service organizations listed on the NSE thus filled a contextual gap. The particular financial strategies that Kenyan commercial and service businesses have to deal with mean that the study's findings can be regarded as relevant and useful.

Tanko et al. (2021) examined the impact of board financial literacy on the financial performance of Nigerian non-financial listed firms. A sample of non-financial enterprises in Nigeria were used to provide financial data. Regression analysis was done to examine the effect of capital structure, proxied by the two ratios of debt-to-assets and debt-to-equity ratios, on the financial performance indicators of ROE and ROA. According to the findings, a company's financial structure has a significant impact on how well it does; more debt reduces profitability since it increases funding risk and interest costs. The study also found that board financial knowledge was a powerful mediator of this relationship. Finance-savvy board members were able to maximize capital, reduce risks, and make wiser financial decisions. As to the survey, companies could avoid decreasing their profitability by managing their debt and leverage levels with the assistance of a board that possesses

financial literacy. Their work contributed to the corpus of knowledge in corporate finance by emphasizing the importance of board experience in explaining firm financial performance. The study was conducted in Nigeria. Because of marked institutional differences, capital-access, and firm-specific differences, these Nigerian findings cannot be easily extended to the Kenyan context. Correspondingly, this current study was conducted among commercial and service organizations listed on the NSE in Kenya.

Yusuf (2022) utilized structured questionnaires to garner information with regard to the capital structure and performance of Kenyan businesses. The results demonstrated a significant association between leverage and cash flow, return on equity, liquidity, and return on investment. The study concluded that leverage can improve a company's financial performance if it is used properly. However, the questionnaire did not adequately reflect the intricacy of capital-structure decision making. The impact of poorly managed debt on the performance of corporate finances was examined by Audi (2022) using Uchumi Supermarkets and Mumias Sugar as two Kenyan businesses. Based on the case study analysis, the research found a number of negative effects of high debt, such as loss of market share and insolvency, which are indicators of financial stress. Accordingly, the report advises companies to manage debts more carefully to reduce the occurrence of unfavorable financial fluctuations. The study exclusively examined failing enterprises, which limits its generalizability to the environment, where debt management is more successful.

2.1.2 Equity Financing and Financial Performance

In their study on equity financing and business growth in China, Chen et al. (2018) concentrated on Chinese companies. The study used a quantitative methodology to look into how equity capital and metrics of company performance, like growth rates and profitability, are related. The findings showed that businesses using equity capital outperformed those using debt in terms of growth and revenue. This suggested that equity capital could help spur growth, especially in emerging nations like China where it is more challenging for businesses to get loans. Although it could significantly affect existing shareholders, the research did not account for the potential dilution of ownership that could

arise from equity financing. The current study addressed a geographic gap and was conducted in Kenya. The findings from China might not be directly applicable in Kenya because of significant differences in institutional structures, money availability, and economic activity.

Mansour et al. (2022) study examined the difficulties in obtaining equity financing in Brazil's expanding economy from 2015 to 2020. Case studies and interviews focused on Brazilian companies were used in this qualitative study. According to the study, adverse selection costs and asymmetric information were major issues for equity financing in Brazil. These characteristics cause organizations to favor debt over equity. The study's findings demonstrated that transparency and information accessibility could enhance funding for equality. The study's reliance on a single developing nation raised concerns because since the findings may not apply to other countries. Khan (2012) assessed the connection between capital structure and company performance in Pakistan. High debt levels can lessen agency disagreements between managers and owners, which in turn promotes conservative management practices, per a quantitative review of financial data from several organizations between 2000 and 2010.The study's findings show that in order to maintain a suitable debt-to-equity ratio, organizations need to carefully manage their capital structures. One of the shortcomings of this study is its indifference to external economic issues that impact capital structure decisions.

Smith and Jones (2019) examined the impact of equity financing on financial performance across a number of countries. The study focused on the best sources of funding for businesses and the role equity plays in boosting financial sustainability served as a catalyst for the academics. Instead of performing research across countries, the authors looked at the financial data of companies in different economic situations. The authors employed econometric modeling tools to determine if companies with a greater equity rate in their capital structure had more successful financial operations than those with a lower equity rate. The results indicated that companies with higher equity capital produced better financial results, as seen by profitability metrics like return on assets (ROA) and return on equity (ROE). Companies that used stock financing also had lower interest rates than

those that used financial leverage, according to the report. This is because stock financing is less risky than debt financing. The current study employed a panel data regression model to ascertain the correlations among the variables in order to address a methodological error discovered in previous research that employed a cross-country comparison technique.

Odero and Mutswenje (2021) looked into the relationship between the capital structure of microfinance institutions and their financial performance in Nairobi City County, Kenya. The aim of the study was to find out how loan and equity investments impacted the financial performance of microfinance institutions. The researchers employed a qualitative study approach with a sample size of MFIs in Nairobi to collect financial data. The regression test was used to assess how capital structure affected financial performance, specifically return on equity (ROE), return on assets (ROA), and net profit margin (NPM). The results demonstrated that capital structure significantly influenced financial success, although debt financing yielded inconclusive outcomes. While small quantities of debt allowed businesses to capitalize on expansion opportunities and increase profits, excessive debt hurt revenues due to high interest rates and unstable finances.

Their study contributed to the expanding corpus of corporate finance knowledge by elucidating the capital structure dynamics of Kenya's microfinance enterprises. The current study addressed a contextual vacuum by concentrating exclusively on companies and services registered on the Nairobi Securities Exchange (NSE). This differs from previous studies on Kenyan microfinance institutions (MFIs) in Nairobi City County. Their organizational behavior, financial needs, capital requirements, and regulatory requirements are very different from those of commercial and service organizations. The great bulk of Kenya's economy is directly linked to the nation's capital markets through companies listed on the NSE, and this report provides helpful information on this sector.

2.1.3 Financial Performance and Long-Term Debt Financing

Doan 2020 examined the effect of debt financing on the financial performance of Vietnamese firms. A quantitative approach was used to analyze panel data from a

worldwide bank between 2010 and 2018. According to the results of the study, there exists no relationship between long-term debt and return on assets. Considering the huge risks and leverage involved, the study asserts that large Vietnamese banks were facing financial difficulties due to their over-dependence on long-term debt, an aspect that might have negatively influenced their financial performance. This indicates that banks should ensure control over their debt levels to avoid a negative impact on financial performance. One of the limitations of the study is that it did not investigate the influence of long-term debt. The implication of long-term debt will be discussed in the conclusion of the study.

Nazir et al. (2021) examined how debt financing impacted the performance of companies listed in PSX. This study was conducted to determine the positive or negative impact of leveraging debt on the financial performance of organizations due to over-reliance on debt as a source of funds for businesses. The quantitative study design utilized secondary data on the financial performance of publicly traded corporations. It investigated, based on financial indicators such as ROE, ROA, and EPS, the varying levels of debt concentration effects on an organization's performance. Company size and industry-specific peculiarities were controlled for in conducting the regression analysis of this association. The present results that show the various effects of debt financing on the value of the company. However, very high levels of leverage increased interest payments and financial risk, thereby hurting performance. The findings proved that firms which relied excessively on debt financing did not show better performance compared to those firms whose capital structure is at an optimum debt-to-equity ratio level.

Results add to the growing body of knowledge in corporate finance by explaining the relationship between debt performance and an emerging country like Pakistan. Besides, there were contextual differences as one study was conducted in Kenya while the other was conducted in Pakistan. Due to large differences in institutional structures, financial availability, and type of businesses involved, these findings may not be fully applicable to the Kenyan context. Jibran et al. (2021) argue that debt financing significantly influences the financial outcomes in Pakistan. Empirical evidence from firms across various sectors states that debt financing provides tax shield advantages; however, higher levels of debts

increase the possibility of firm closure. The findings address the importance of firm debt-equity balancing in motivating business financial performances. A limitation associated with this study is its inability to highlight a sectoral variation in the impact of debt financing. Abubakar (2015) analyzed debt financing and the economic viability of firms in Nigeria. The study assessed the impact of debt financing on the performance and viability of firms between 2005 and 2012 through the use of quantitative data analysis. The conclusion of the study addressed the importance of having balanced financial policies because a company was likely to be less viable if it had higher levels of debt. The findings imply that firms have to ensure it is able to settle its level of debts in order to have sustained financial performance for a long period. One of the limitations of this study is that it focused on a specific economic period; this may not reflect the changing nature of the financial trends. Consequently, this work addresses this conceptual gap.

2.1.4 Moderating Effect of Firm Size on Relationship between Capital Structure and Financial Performance

Yusuf et al. (2021) explore how corporate governance standards affect the value relevance of accounting information and the share prices of companies listed on the Nigerian Stock Exchange. The study analyzed the extent to which corporate governance practices, including board participation, transparency, and effective audit committees, impact the relationship between accounting data and stock prices. This study explores various corporate governance practices that influence firm value. Unlike the previous study, which was conducted in Nigeria, this one was done in Kenya to fill a contextual gap. The results in Nigeria cannot be generalized into Kenya due to profound differences in corporate characteristics, capital accessibility, and institutional structure. Ekele (2024) focused on the size of listed financial services firms in Nigeria, and the relationship between a firm's capital structure and its financial performance. Financial performance ratios that were explored in this paper included return on equity, return on assets, the size, independence, and composition of the board. To examine the direct and moderating effects, the regression analysis was used together with secondary data obtained from the financial reports of the sampled organizations. Positive empirical evidence was found between financial performance and well-governed boards; however, this was not true across boards of all

sizes. The governance structure's effectiveness was stronger for large organizations, signifying that the board's structure influences the big businesses' financial performance more. These results mean that improved corporate governance and financial success in Nigeria's financial services sector is significantly affected by the size of the business and board composition.

Meshack et al. (2022) used firm size as the moderating variable in capital structure research to investigate the effect of non-financial listed companies on the Nairobi Securities Exchange (NSE) on firm performance. The study article explored secondary data obtained from financial statements where the focus was on the components of capital structure such as debt-to-equity and equity financing, and performance indicators like ROE and ROA. The paper used panel data regression models to test for the direct relationship of capital structure and financial performance and the interaction between firm size and capital structure. The findings indicate that an optimal capital structure enhances financial performance, while excessive leverage negatively impacts profitability. The larger companies' superior access to finance and capacity to benefit from economies of scale reinforced this connection. Even though firm size and leverage have been used as moderating factors in previous research; the current study will employ firm size as a moderating variable to examine the likelihood of alternative outcomes. The natural logarithm of total assets was employed as a proxy for business size in order to examine its moderating effect on the relationship between capital structure and financial performance.

2.1.5 Summary of the Research Gaps

Table 1:Summary of the Research Gaps

Author	Study Purpose	Methodology	Findings	Research gaps
Putri and Rahyuda (2020)	Effect of capital structure and sales growth on firm value, with profitability as a mediating variable	The study utilized a quantitative research approach, analyzing financial data from selected firms.	Their findings revealed that capital structure had a significant negative effect on firm value, implying that excessive debt financing could lower investor confidence and market valuation	The current study bridged a contextual gap where it used firm size as the mediator between capital structure and the financial performance of firms whereas the previous study used profitability as the moderator.
Brusov *et al*. (2022)	Capital structure and corporate governance in Russia, using combined empirical analysis with theoretical models.	The study used regression analysis and concluded that higher debt-to-equity ratios improve efficiency and maximize shareholder wealth	The findings indicate that while debt is likely to trigger efficiency, it must be handled prudently to avoid financial strain.	Since this study was carried out in Russia, the current study closed a geographic gap by examining companies listed on the NSE in Kenya.
Fauzi *et al.* (2022)	The effect of capital structure on the performance of telecommunication firms across multiple countries	The study employed a quantitative research approach, analyzing financial data from telecommunication firms operating in different international markets.	Their findings indicated that capital structure had a mixed impact on firm performance, depending on the financial leverage levels adopted by the firms.	The current study therefore bridged a contextual gap where it conducted its research in commercial and service companies listed in the NSE.

Tanko *et al.* (2021)	the relationship between capital structure and firm financial performance, with a particular focus on the moderating role of board financial literacy in Nigerian listed non-financial companies.	The study employed a quantitative research design, analyzing financial data from selected Nigerian non-financial firms.	Their findings indicated that capital structure had a significant effect on firm financial performance, with higher levels of debt negatively impacting profitability due to increased interest expenses and financial risk.	The study was conducted in Nigeria. The current study therefore be conducted in Kenya in the commercial and service companies listed in the NSE.
Yusuf,(2022)	capital structure and firm performance in Kenya, utilized structured questionnaires for data collection	Reliance on questionnaires limited the depth of understanding regarding the complexities of capital structure decisions	The findings imply that firms must carefully manage their debt levels to avoid negative financial outcomes. The study's focus on firms in distress limited its generalizability to other contexts where debt is managed more effectively.	The study relied on primary data while the current study relied on secondary data.
Chen *et al.* (2018)	"Equity Financing and Firm Growth in China," focusing on Chinese firms	The study employed a quantitative methodology, analysing the relationship between equity financing and firm performance metrics such as growth rates and profitability.	The findings revealed that firms utilizing equity financing experienced higher growth rates and enhanced profitability compared to those reliant on debt.	The current study bridged a geographical gap as it was conducted in Kenya while the previous study was conducted in China.

Smith and Jones (2019)	To analyze the impact of equity financing on financial performance across different countries.	The researchers employed a cross-country comparative approach, utilizing financial data from firms operating in diverse economic environments by applying econometric modeling techniques,	Their findings indicated that firms with higher equity financing generally exhibited improved financial performance, as measured by profitability ratios, return on assets (ROA), and return on equity (ROE).	A methodological research gap was covered as the current study used multiple regression to determine the relationship between its variables while the previous research used a cross-country comparative approach to determine the relationship between variables.
Odero and Mutswenje (2021)	the relationship between capital structure and the financial performance of microfinance institutions (MFIs) in Nairobi City County, Kenya.	The researchers employed a quantitative research design, utilizing financial data from selected MFIs in Nairobi.	Their findings revealed that capital structure had a significant effect on financial performance, with debt financing showing mixed results. While moderate debt levels enhanced financial performance by leveraging growth opportunities, excessive reliance on debt negatively impacted profitability due to high interest costs and financial distress	A contextual gap was bridged as the current study conducted its research in the commercial and service companies listed in the NSE while the previous research conducted its study in the microfinance institutions (MFIs) in Nairobi City County, Kenya.

Fatihudin (2018)	Analysed the correlation between retained earnings and stock prices in the Indonesian market.	The study used a quantitative approach, finding a positive correlation between retained earnings and share prices.	The findings suggest that higher retained earnings may signal a firm's strong financial health and growth prospects, positively influencing investor confidence and share prices.	However, the study did not sufficiently explore the factors that could moderate the relationship between retained earnings and share prices, such as industry-specific conditions or market sentiment. Therefore, the current study bridged this gap by exploring the moderating relationship between the variables
Smith and Smith (2019)	The role of retained earnings in multinational corporations focusing on global firms.	The study employed a mixed-methods approach, combining qualitative case studies with quantitative analysis.	The findings revealed that companies with substantial retained earnings were better positioned to invest in research and development, thereby enhancing their competitive edge in the global market.	A contextual gap was bridged as the previous study was conducted on the multinational corporations focusing on global firms while the current study conducted its research on commercial and service firms listed in the NSE.

Osei *et al*. (2019)	retained earnings and innovation in Ghanaian enterprises	The study used a survey-based methodology to assess the relationship between retained earnings and innovation in local enterprises.	The findings emphasized the role of retained earnings in fostering innovation and technological advancement, enhancing the competitiveness of these enterprises	A geographical gap was covered as it conducted its study in Kenya while the previous study was conducted in Ghana.
Nazir *et al.* (2021)	Examine the impact of debt financing on firm performance among companies listed on the Pakistan Stock Exchange (PSX).	The researchers employed a quantitative research approach, utilizing secondary financial data from publicly listed firms.	The study's findings indicated that debt financing had a mixed impact on firm performance. While moderate levels of debt contributed to financial growth by providing firms with capital for expansion	A geographical gap was covered as the current study was conducted in Kenya while the previous study was conducted in Pakistan.

2.2 Theoretical Framework

The theories that are pertinent to capital structure and financial performance include the Modigliani and Miller theory, the agency theory, the Trade-Off Theory, and the Pecking Order Theory formed the basis of the current study.

2.2.1 Modigliani and Miller Theory

The Modigliani and Miller (M&M) theory was first proposed by Franco Modigliani and Merton Miller in 1958. One of the most fundamental ideas in corporate finance is that a company's capital structure affects its value and financial performance (Brusov et al., 2022). The theory is based on the concept of a perfect, tax-free capital market with no asymmetric information and bankruptcy costs. The first Proposition I by Modigliani and Miller is that, in a perfect market, the financial structure of the firm does not have any influence on its value. It implies that the ultimate value of a firm is not affected whether it is financed through debt or shares. Proposition II states that when firms incur more debt to reduce heightened financial risk, the benefit of debt financing will be offset by higher stock costs. In examining service and commercial firms listed on the Nairobi Securities Exchange, the M&M hypothesis is particularly useful. Some of the factors that researchers consider include the size of the firm, its financial performance, and its capital structure. The underlying idea is that, under a perfect market, the value of the firm would not be affected by its capital structure. To reiterate, because these businesses operate under volatile markets, businesses in Kenya, just like elsewhere, face various risks from taxation, bankruptcies, and financial difficulties. Businesses must strike a balance between debt and equity finance to ensure maximum profitability at minimal risk (Cindiyasari et al., 2022). Capital structure decisions thus impact financial performance. The size of the organization matters; for instance, small-scale businesses cannot easily access financing because their budgets are limited, while large organizations can easily access loans and credit at low interest rates. Although there are numerous challenges, especially when it is applied to the real world, the Modigliani and Miller Theory is an essential component in corporate finance: The financial markets are assumed to be risk-free of transaction costs, taxes, and insolvency risk.

In reality, firms encounter several challenges in the market which affect their capital raising ability. Implications of Tax Rarity Sensitivity: Although it is a significant factor that influences the choice of capital structure by firms, the corporate tax was excluded in the initial model. The authors, Modigliani and Miller afterwards changed their stand and argued that borrowed capital was relatively superior since it reduced taxes (interest tax sheltering). However, the strategy overlooks the bankruptcy and financial distress costs. Besides reducing a firm's value, excessive debt also causes financial distress. Notwithstanding the weaknesses, the M&M theory forms a significant component of corporate finance as it allows us to explore the links between size of firm, capital structure and financial performance in the real-world financial markets, such as those in Kenya.

2.2.2 Trade-Off Theory

Kraus and Litzenberger in 1973 developed the Trade-Off approach of Capital Structure, which was the extension of an approach established by Modigliani and Miller in 1958. The theory states that organizations consider the benefits derived from the utilization of equity and leverage as well as the costs accrued while determining capital structure. Unlike the original assumption in Modigliani and Miller that 'perfect' markets have no impact of capital structure on firms' value, the trade-off theory explains how businesses make decisions on how much money to spend when it comes to 'real world' concerns such as tax advantages, bankruptcy expenses, and a company's ability to survive a financial crunch. The tax-shielding advantage of debt is emphasized as the main focus of the tradeoff theory.

Due to the tax treatment of expensed interest on both debt and equity finances, firms can utilize borrowed funds as a means of maximizing value when taxable revenue is low (Arifin, 2018). On the contrary, high reliance on debt increases bankruptcy and financial distress costs, which include costs related to asset liquidation, legal fees, and loss of investor confidence. Under the trade-off hypothesis, which was developed by Franco Modigliani and Merton Miller in 1958, firms will choose their optimal capital structure where the marginal advantages of debt or tax shelter are equated with the marginal disadvantages of bankruptcy risk and financial distress. The trade-off theory can be applied in examining size, profitability, and capital structure of quoted service and

commercial enterprises listed at the Nairobi Securities Exchange. Firms listed at NSE have to strike a balance between debt and equity financing in order to optimize financial performance while at the same time retaining low levels of debt to avoid risks associated with high debt levels.

Large firms can therefore assume more financial risk given their easy access to loans. Equity financing, rather than ownership dilution, appears to be more viable with the recent financial squeeze and the sensitivity of small businesses to the requirements of high interest rates (Doan 2020). The trade-off concept takes into account the firm's size, profitability, and risk tolerance; hence, it explains these various financing possibilities. One of the most useful theories of corporate finance, the trade-off theory explains a firm's capital structure choices that balance debt and equity capital for its maximum financial success. Although it illustrates the capital structure options of NSE-listed companies, its applicability is limited by financial imperatives, market imperfections, and behavioral bias, particularly in third-world countries such as Kenya.

2.2.3. Agency Theory

The first Agency Theory was developed in 1976 by Michael Jensen and William Meckling. It focused at how managers and business owners interact. The Agency Theory also assessed conflicts of interest that occur in companies when managers act illegally instead of in their own best interests. As businesses expand in size, owners and shareholders start giving managers the responsibility of supervising day-to-day operations (Ngacho, Wafula, & Oyugi, 2021). Given that management may not be actively attempting to maximize shareholder interests, a conflict of interest could arise in this situation. The theory is predicated on the idea that actors are fundamentally self-interested and may pursue their own objectives, such as obtaining employment or raising their own income. Agency theory stated that because managers and owners have distinct interests and aims, conflict between them is inevitable. It is anticipated that agency costs like as bonding, monitoring, and residual losses will be borne in order to align managers' interests with shareholders. To lower the expenses of executive discretion and lessen agency conflict, companies may employ governance tools like higher debt, bigger dividend payments, or other oversight

procedures. Agency theory has been widely applied in empirical studies of corporate governance and capital structure. Shapiro (2005) examined how free cash flow may make agency issues worse in companies with surplus resources, whereas Mitnick (2015) emphasized that agency conflicts can be avoided by monitoring and bonding expenses. Businesses with high debt levels have reduced agency costs since managerial options are often limited, which enhances financial performance (Tindi, 2022; Ngacho, Wafula, & Oyugi, 2021). According to agency theory, there are several ways to lessen the conflict of interest between managers and shareholders, including dividend policy, debt financing, and monitoring procedures. However, the theory overlooked the possibility of circumstances in which managers prioritize the interests of shareholders without the need for incentives since it suggests that people are solely interested in themselves. This is a significant problem. Although this may not always be the case, the concept also assumes that agency expenses will always be kept as low as feasible.

Research on capital structure and financial performance must be based on agency theory since it clarifies how choices about capital structure, such as using debt, can lower agency costs and improve financial performance. Debt can be used as a form of discipline to make management more frugal with their money and to compel them to act in the shareholders' best interests. According to agency theory, firms with higher debt levels are better able to govern executive discretion because they impose financial limitations on managers that lower their free cash flow (Mitnick, 2015). Debt limits managers' options by lowering free cash flow, which stops them from investing in failing companies or taking actions that favor them at the expense of shareholders. Since companies that effectively handle agency problems tend to use their resources more efficiently and have greater consensus between management and shareholders, the idea is also linked to financial success.

2.2.4 Pecking Order Theory

Stewart Myers introduced the Pecking Order Theory in 1984.This concept explores how the difference in information between managers and investors influences the decision on the capital structure of an organization. It also considers the financial decisions of the company. Firms typically use internal sources of funding, such as retained earnings, rather

than external sources of finance, such as debt and equity, to prevent the revelation of adverse news in the market (Hang and Zhu, 2021). The discovery is what gives rise to this concept. One of the contributing elements in this context is information asymmetry. According to the pecking order concept, the business managers are better informed about the financial situation and future outcomes of a company than the outside investors. In addition, it is supported by knowledge asymmetry, that elevates the risk and cost of external investment. Businesses prefer to raise finances with their own funds rather than from external borrowing because it is less costly. The concept proposes that businesses should fund in the following order: debt should be issued after internal financing or cash generated or retained within the company, then stock, which is costly and negatively impacts the market.

This funding structure minimizes the negative impacts that come with knowledge asymmetry. Hang and Zhu (2021) applied the pecking order hypothesis to explain the ways in which corporations receive funds during unpredictable economic periods. According to Bongoye (2017), the market typically provides adverse signals whenever a corporation issues shares. This reduces the price of the stock. Another study by Ayuba et al. (2019) points out that businesses often rely on increased borrowing during financial crises when internal funds are too inadequate. The strongest aspect of this theory is that it provides a real-life example of how individuals behave when financing a project, especially when the level of knowledge asymmetry is high. It is also correct in predicting why businesses use their internal funds and why the issuance of stock is always reserved for very rare circumstances. The theory is flawed in assuming that every firm has a financial hierarchy and does not consider the strategic issuance of debt or equity based on market conditions or an investment opportunity that would disrupt the stability of the hierarchy. Leverage theory can be used to analyze capital structure and financial performance since it offers frameworks for how companies choose their capital structure, particularly when issuing debt or equity. Businesses that put their own finances first and use selective debt are likely to make money by lowering borrowing costs and avoiding unfavorable market reactions to stock concerns. Pecking Order Theory is relevant to capital structure because companies need to prioritize their financing choices to achieve the best possible balance between

internal and external financing. While financially distressed companies might need more indebtedness, more profitable organizations might need more retained earnings. Better financial results are also more likely for companies who use their own capital or low-cost loans to lower the cost of borrowing from other sources.

2.3 Conceptual Framework

A conceptual framework shows variables of a study and how they are perceived to relate with each other as shown in Figure 1.

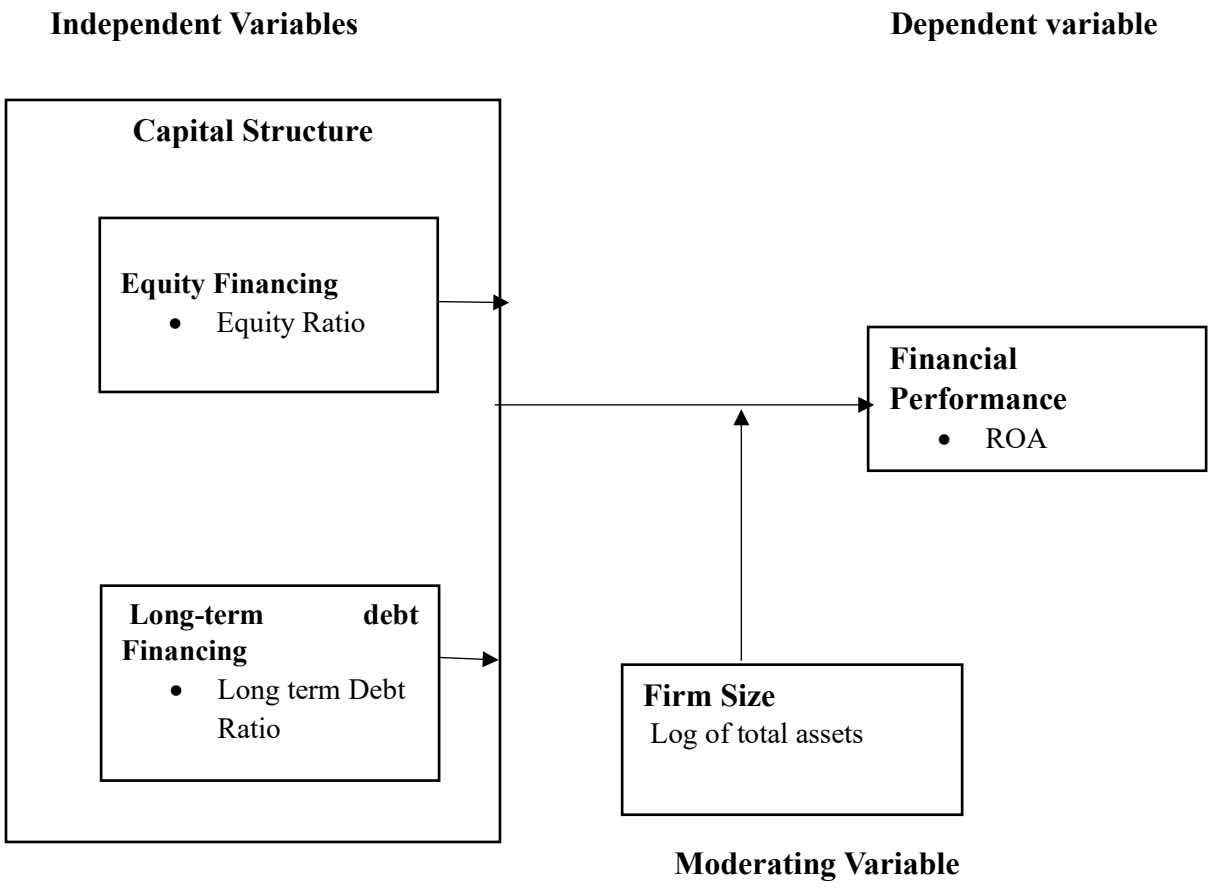


Figure 1: Relationship between Capital Structure, Firm Size and Financial Performance

Aspects of capital structure and financial performance are taken into account in the conceptual framework shown in figure 1 above. A company's capital structure is the combination of debt and equity it uses to finance its operations and growth. More specifically, the dependent variable is financial performance. The two separate components

are debt and equity financing. One method of raising funds for equity financing is the issuance of shares. Debt finance services include bonds and loans with maturities longer than a year. Leverage has an effect on ROE. Debt can contribute to higher returns on equity as long as assets exceed debt costs. Excessive debt also implies a financial danger. One often used technique in financial analysis and research to determine firm size is the logarithm (log) of total assets. The logarithm is used to handle the large range of values seen in total asset data from several organizations. Log transformation is particularly useful when working with data that spans multiple orders of magnitude, such as the enormous differences in total assets from very small to very large firms.

2.4 Operationalization of Variables

Table 2:Operationalization of Variables

Variable	Type of the Variable	Indicator (s)	Measurement
Financial Performance	Dependent	ROA	Ratio of net income to total Assets
Equity financing	Independent variable	Equity Ratio	Ratio of total equity to total Assets
Long-term debt Financing	Independent variable	Debt Ratio	Ratio of total long-term debt to total Assets
Firm Size	Moderating variable	Total Assets	Logs of total Assets

CHAPTER THREE
METHODOLOGY

3.1 Location of the Study

The location of NSE is in Nairobi County which is located in the GPS of 36°49'E longitude and 1.2921°S latitude. The study should be conducted in all 13 of the companies listed on the commercial and service businesses in the Kenyan Stock Exchange (NSE). Listed companies on NSE shall be targeted because they publish their accounts so that the public can assess their value.

3.2 Research Design

A research design acts as a roadmap for addressing problems that come up throughout a study. A research design, according to Turner (2020), is a strategy for handling research issues. However, the plan covers every facet of the investigation, from proposal writing to final data analysis. A research design is a framework for collecting and analyzing data (Assagaf & Ali, 2017). This study employed a descriptive cross-sectional research approach. This research design clarifies the characteristics of the topic population (Muiruri, 2020). The study adopted a descriptive cross-sectional study strategy since it gave us accurate results with a small sample size for a large number of respondents over a large area. The descriptive cross-sectional approach allowed the researcher to obtain a thorough picture of the variables of interest at a certain moment in time.

3.3 Population of the Study

Wang et al. (2020) describe a target population as a clearly defined set of people or things being studied. The NSE lists thirteen commercial and service companies (CDSC, 2025). The 13 commercial and service firms were chosen based on census data. The industries were told to make their shares more attractive and valuable than those of unlisted companies. The main purpose of inventories in commercial and service enterprises was to support their daily activities. The study selected listed companies because they are larger, have more assets, are governed by CMA regulations, and must have their financial statements examined by respectable international audit firms. Listed corporations also want to make their shares more attractive and valuable than those of non-listed companies.

3.4. Sampling Procedure and Sample Size

Since the 13 services and commercial businesses that were the focus of the investigation did not publish their audited financial reports in each of the years under consideration, the study employed purposive sampling. As a result, only five businesses in that sector that have been submitting audited financial reports to the CMA for 10 years, from 2015 to 2024, were selected. A complete list of all the people in the group you wish to research is called a census survey. When the population is small, it makes logical to conduct a census (Mugenda & Mugenda, 2003). By providing thorough information about the entire population or a sizable portion of it, censuses guarantee the accuracy of the data gathered.

3.5. Research Tools

A checklist was used to collect secondary data from yearly financial reports that were filed to the NSE and Capital Markets Authority between 2015 and 2024.The researcher gathered data from the financial statements, including the ratios of net income to total assets, total equity to total assets, total long-term debt to total assets, total assets, and any notes to the accounts. To meet the goals of the study, the necessary data was meticulously arranged using a data gathering sheet, as shown in Appendix II. Every year from 2015 until 2024, the data was published. This information was subsequently divided into four categories: equity capital, long-term debt, financial performance, and firm size. Due to the fact that it provides reliable, accessible, and long-term information, secondary data was selected since it can potentially reduce the problems of time and resource limitations that are associated with primary data collection (Cooper & Schindler, 2008). A major limitation associated with the use of secondary data is that missing or incomplete information may affect the analysis. This limitation was minimized by ascertaining that the data collection sheet contained all the required variables.

3.6. Data Collection Procedure

The study used secondary data because it was expected to offer comprehensive, trustworthy, and easily accessible historical information, reducing the time and resource restrictions related to primary data collection. The study collected secondary data from published financial statements that were reported to the NSE and CMA on an annual basis between 2015 and 2024 using a data collecting sheet. To find out the companies' net

income, total assets, and all the notes that accompanied the reports, the researcher used the financial statements. To accomplish the goals of the study, the required data was meticulously arranged using a data collecting form, which may be seen in Appendix IV. The information was divided into three main categories: equity financing, long-term loan financing, and firm size. Next, it was arranged by year, starting in 2015 and ending in 2024. By grouping them, it would be possible to collect the company's net revenues, total equity, total long-term debt, and total assets in a systematic manner.

3.7. Data Analysis

The current study employed both descriptive and inferential statistics to identify the quantitative secondary data. The study used STATA version 18 to analyse the data for central-tendency measures (mean) and dispersion measures (standard deviation). The study used panel data regression analysis to ascertain whether there was a relationship between the capital structure and financial performance of companies that traded on the NSE. Before starting the study, Panel data regression model's assumptions of normality, autocorrelation, linearity, and homoscedasticity was confirmed. Panel data regression models were used to investigate the connection between capital structure and financial performance. An F-test was used to evaluate the model's overall significance, and t-tests were used to evaluate the hypotheses' significance. A table containing the results was then displayed.

3.8. Model Specification

This study employed a panel data regression model with two independent variables. The independent variables are loan and equity funding, and the dependent variable is the performance of commercial and service companies listed on the NSE. The hypotheses for each study aim were evaluated independently using stepwise regression testing, as advised by Mashiri and Sebele (2014). The regression equation was created using the following model: For every objective, the study created the following basic regression models. Without moderation

$$\text{Objective 1: } Y_{it} = \beta_0 + \beta_1 X_{1it} + \varepsilon_{it} \quad \ldots\ldots (1)$$

$$\text{Objective2: } Y_{it} = \beta_0 + \beta_2 X_{2it} + \varepsilon_{it} \quad \ldots\ldots (2)$$

Model for Capital Structure and Financial Performance:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \ldots\ldots(3)$$

Model 3 Combines both equity financing and long-term debt financing in a multiple regression model to address the effect of capital structure on financial performance. Models 1 and 2 only address the effect of the components of capital structure (equity for model 1, and long-term debt for model 2), on financial performance, as per objectives 1 and 2 respectively.

Objective 3: $Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 FS_{it} + \beta_4 X_{1it}.FS_{it} + \beta_5 X_{2it}.FS_{it} + \varepsilon_{it}$

……...(4)

A Combined effect of the following simple regression models gave the multivariate regression model.

Objective 4: $Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 FS_{it} + \varepsilon_{it}$…… (5)

Where Y =Financial Performance

X_i =$X_1, X_2$are Equity Financing and Debt Financing respectively

β_0=Constant representing Financial Performance in absence of independent variables.

β_i= $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5,$ are Coefficient of Independent Variables.

Fs= Moderator Variable which is firm size.

ε= Error Term.

X_1= Equity Financing.

X_2= Debt Financing.

t=Time Period

i=The Firms

3.8.1 Diagnostic Tests

The diagnostic tests are techniques that make it easier to identify or detect any econometric issues in the previously examined data.They are beneficial because they assist the researcher in taking corrective measures, preventing the potential for producing inaccurate results (Ullah et al. 2019). Normality, multicollinearity, and heteroscedasticity are the issues that were examined.

3.8.1.1 Normality Test

A multiple linear regression model's error component needs to have a normally distributed distribution, a zero mean, and a constant difference for every value. The current study uses Shapiro-Wilk to determine whether the residuals are normal. The application of the linear regression model is justified by the normally distributed residuals. The outcomes are therefore more trustworthy. According to Yu et al. (2016), the skewness value should fall within the acceptable range of positive, negative, or zero, and the Shapiro-Wilk values should be ± 3 for residual normalcy.

3.8.1.2 Multicollinearity Test

Schmidt and Finan (2018) stated that multicollinearity occurs when there is a reciprocal link between the explanatory variables. When multicollinearity is present, it becomes more challenging to ascertain how each independent construct affects the other dependent constructs. Individual regression parameters' estimation accuracy declines with increasing multicollinearity between two variables (Aczel & Sounderpadian, 2002). The study looks into the existence of multicollinearity using the Variance Inflation Factor. In the event that the Variance Inflation Factor (VIF) is less than 10, there will be no multicollinearity among the proposed causative factors. The researcher had to remove one of the predictors that caused multicollinearity.

3.8.1.3 Heteroskedasticity Test

Heteroskedasticity occurs when the error terms do not exhibit a consistent difference, according to Baum and Lewbel (2019). Measurement mistakes, the presence of sub-population variances, and other cooperation effects can all contribute to the consequences of heteroskedasticity. The absence of biassed constraint approximations is guaranteed by heteroskedasticity. However, when heteroskedasticity is present, the normal errors are skewed. This leads to bias in assessment data and confidence ranges. Heteroskedasticity breaks a situation known as a persistent difference. Heteroskedasticity was tested using White's test. The test's null hypothesis is that the residuals' variance is constant (homoscedasticity).

3.8.1.4 Autocorrelation Test

When the error term variances are progressively dependent on one another, this is known as autocorrelation. According to Bera and Kim (2022), the classical linear regression model assumes that disruptions in one observation do not necessarily correspond to disturbances in another location. Inaccurately, autocorrelation introduces bias and inconsistency into parameter estimate. The results of the autocorrelation test, the Wooldridge test, are shown in Table 12.

3.8.1.5 Hausman Specification Test

When examining panel data, econometricians use the Hausman Specification Test to determine whether a model will use the fixed effects model or the random effects model. By observing whether the fixed effects and random effects estimators vary over time, it checks for endogeneity (Patrick 2021). According to the null hypothesis (H_0), there is no correlation between the error term and the explanatory factors, and the random effects estimator is both efficient and consistent. The null hypothesis is incorrect and the fixed effects model is a better fit when the test statistic (the p-value) is less than a specific level of significance, usually 0.05. To ensure that the model choice fits the underlying data structure, the Hausman test must be applied. This is to prevent estimators that are inconsistent or biased.

3.9 Data Analysis Matrix

Table 3:Data analysis Matrix

Hypotheses	Model	Hypothesis Testing	Decision Rule
$H_0$1: Equity financing has no significant effect on the financial performance of commercial and service companies listed in NSE in Kenya.	$Y = \beta_0 + \beta_1 X_1 + \varepsilon$	Simple regression analysis	H_o1: $\beta_1 = 0$ $H_1$1: $\beta_1 \neq 0$ If the P ≤ 0.05 reject the H_o1 If the P › 0.05 fail to reject the H_{01}
$H_0$2: Long term debt financing does not significantly affect the financial performance of commercial and service companies listed in NSE in Kenya.	$Y = \beta_0 + \beta_2 X_2 + \varepsilon$	Simple regression analysis	H_o2: $\beta_2 = 0$ $H_1$2: $\beta_2 \neq 0$ If the P ≤ 0.05 reject the H_o2 If the P › 0.05 fail to reject the H_{02}
$H_0$3: There is no significant moderating effect of firm size on the relationship between capital structure and financial performance of commercial and service companies listed in NSE in Kenya.	$Y = \beta_0 + \beta_1 X + \beta_2 M + \beta_3 (X * M) + \varepsilon$	Step wise moderation analysis	H_o3: $\beta_3 = 0$ $H_1$3: $\beta_3 \neq 0$ If the P ≤ 0.05 reject the H_o3 If the P › 0.05 fail to reject the H_{03}
$H_0$4: To evaluate the joint effect of equity financing, debt financing and Firm size on financial performance of commercial and services Firms listed on the Nairobi Securities Exchange in Kenya.	$Y = \beta 0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$	Multiple regression analysis	If the Interaction Term is Not Significant (P ≥ 0.05): fail to reject H05 If the Interaction Term is Significant (P < 0.05): reject H04

3.10. Ethical Considerations

According to Mugenda & Mugenda (2003), ethics is the branch of philosophy that guides an individual's behavior. One of the most crucial considerations for determining whether a person's behavior toward people affected by or involved in their career is right or wrong is ethics (Arifin, 2018). Arifin (2018) asserts that moral and ethical issues are present in the formulation of research concepts, the implementation of studies, obtaining access, collecting and storing data, analyzing data, and sharing study results. Additionally, the research would be conducted professionally. Prior to the start of this inquiry, approval from the Tharaka University Institutional Ethics Review Committee and research permission from the National Commission for Science, Technology, and Innovation (NACOSTI) were acquired, as indicated in Appendix V. Confidentiality and privacy were maintained, and consent from the organization was sought before any information was shared. When properly referencing and accrediting content from the internet and other sources, APA, 7th Edition, should be followed.

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the analysis and examination of data gathered throughout the investigation. The findings are, therefore, thoughtfully compiled to represent the study's objectives and underlying hypotheses. The results presented together with statistical outputs, significance levels, and patterns that have been observed in an attempt to shed light on the relationship between capital structure and the financial performance of commercial and service enterprises listed on the Nairobi Security Exchange in Kenya. Following the presentation of results, a discussion considers the implications for Kenyan commercial and service enterprises listed on the Nairobi Securities Exchange, setting the findings within the framework of previous studies.

4.2 Descriptive Results

To improve comprehension, descriptive statistics make it possible to display data in a more meaningful and understandable way. The fundamental components of statistics were described using descriptive statistics. For the majority of the data, the mean served as a measure of central tendency, while the standard deviation determined the variation from the mean. The standard deviation quantifies the distribution of the data around the mean. A given element's minimum value displays the lowest number, and its maximum value displays the greatest number.

4.2.1 Financial Performance

The ability of a company to generate profit from its main operations while utilizing its resources is gauged by its financial performance. ROI, ROE, and ROA are typical measures of a company's financial performance. Typically, these are taken into account by comparing profits before and after taxes. Shareholders examine the company's financial statements, such as the income, cash-flow, and balance sheets, or the data supplied by the market, to assess how well the company performed at the end of an accounting period in comparison to how well it performed at the start of the period. Financial performance was evaluated in

this study using ROA, or the ratio of net income to total assets. We used standard deviations and mean values to create descriptive statistics.

Table 4:Descriptive Statistics on Financial Performance

Year	Mean	SD	Min	Max	Skewness	Kurtosis
2015	14.82456	1.387509	14.82456	14.82456	.1355073	1.749185
2016	17.69554	2.083605	15.30236	19.10641	.1556934	1.649956
2017	18.59853	2.249418	18.59853	18.59853	.107691	1.621807
2018	19.19202	2.674268	19.00292	19.38112	.1318972	1.659866
2019	19.01813	1.847303	19.01813	19.01813	-.0171202	1.710835
2020	22.17898	2.54835	15.75281	25.99971	-.2482321	1.996966
2021	17.31021	2.661339	17.31021	17.31021	.0907548	1.935932
2022	18.74809	1.423808	17.74131	19.75488	.6142883	2.280703
2023	17.95635	2.807241	15.97133	19.94137	.5467059	1.890282
2024	20.03779	2.977022	16.69895	22.41557	.5304143	1.879832
Average	18.55602	2.2659863	17.022111	19.635049	-.1444529	2.336038

The descriptive statistics for financial performance are shown in Table 4 as mean, standard deviation, skewness, and kurtosis. The best mean performance was in 2020, as can be seen from this (M = 22.18, SD = 2.55). The distribution was pulled to the left by this year's negative skewness (-0.25), indicating that a tiny percentage of enterprises did worse than usual. The lowest average (M = 14.82, SD = 1.39) and nearly zero skewness (0.14) in 2015 indicate weaker but more balanced performance. Since the majority of the values were within the average range and only a few numbers of organizations were doing exceptionally well, the distribution shapes were primarily positive (Skew = 0.61 in 2022). The average financial performance throughout this period was M = 18.56 (SD = 2.27, Skew = -0.14, Kurtosis = 2.34), which suggests a reasonable return and a distribution that is reasonably well-balanced. Overall, these findings suggest that while companies' financial performance has improved over time, the distributions' shape has remained rather stable and is devoid of extreme outliers. However, some years, such as 2020, have greater negative skewness and unpredictability, indicating differences in business performance.

4.2.2 Equity Financing

When debt is repaid, equity financing shows how interested shareholders are in the company's assets. Common stock, preferred stock, capital surplus, retained earnings, and reserves are all examples of equity that can be shown in financial statements. A business

usually needs more equity than financing in its early stages. But as it grows, it might take on more debt. Some businesses have little likelihood of expanding, while others have enormous development potential, and yet others have no chance at all. As a result, not all businesses grow in the same way. In this study, equity financing was defined using the equity ratio, which is calculated by dividing total equity by total assets.

Table 5:Descriptive Statistics on Equity Financing

Year	Mean	SD	Min	Max	Skewness	Kurtosis
2015	20.14565	2.467691	17.63147	22.99388	.1360293	1.360862
2016	19.7796	2.900303	16.95881	22.98144	.1008346	1.219229
2017	20.63578	2.728629	17.62207	22.93862	-.4461317	1.5
2018	22.16448	1.090609	21.39331	22.93566	0	1
2019	20.40825	2.925135	17.20737	22.9426	-.396873	1.5
2020	21.31154	1.349942	20.26355	22.83485	.566662	1.5
2021	20.61699	1.641439	18.81894	22.7577	.3376579	1.929335
2022	21.58904	2.58127	19.01521	25.40623	.5963345	1.873492
2023	21.07639	1.387509	20.06912	23.10055	.9776273	2.181074
2024	21.21278	1.483822	19.83648	23.16874	.4952775	1.728905
Overall	20.89405	2.055635	18.88163	23.20603	-.1531061	2.494779

Descriptive statistics of equity funding, including skewness, kurtosis, dispersion, and central tendency, are shown in Table 5. In terms of equity financing, 2018 had the highest mean (M = 22.16, SD = 1.09). As a result, equity financing was used often but not often. The lowest mean, M = 19.78 and SD = 2.90, was found in 2016, suggesting that equity financing was used both frequently and infrequently. Positive skewness was present in most years. For example, skew = 0.98 in 2023 shows that while a small number of enterprises had much higher equity values, numerous businesses are clustered around their lower values. In other years, however, like 2017 and 2019, when the skewness ratings were negative (-0.45 and -0.40, respectively), the distribution was more consistent with higher equity values. The average equity financing was M = 20.89 with SD = 2.06, Skew = -0.15, and Kurtosis = 2.49. This suggests that the dispersion was dispersed very evenly. The data usually show that equity financing stayed rather steady over time, albeit not being distributed equally. Some years featured prominent outliers at lower levels, while others had more evenly distributed clusters. This illustrates how equity capital was utilized differently by various companies and historical periods.

4.2.3 Long Term Debt

In order to design a realistic finance plan that prioritizes cost control and operational efficiency for profit development, management is expected to blend equity with other funding sources. To make equity a more desirable financing option, businesses can also adopt steps that maximize equity capital productivity. Regaining investor trust, funding ventures with more potential for profit, and optimizing dividend payments to raise shareholder value are some of these measures. As a result, management have to concentrate on locating less costly funding options, renegotiating loan conditions to obtain better interest rates, and debt restructuring to reduce interest expenses. Therefore, in order to prevent undue leverage that could jeopardize stability, businesses need to have robust risk management procedures. Priority should always be given to internal financing from retained earnings before looking for new long-term debt.

Innovative finance solutions that minimize bureaucratic bottlenecks, maximize the cost of equity, and optimize operations should be implemented by the management of larger businesses. However, smaller businesses can still utilize stock to finance expansion while keeping an eye on the impacts of dilution. All firms should give size-related tactics like productivity improvement, technology adoption, and diversification top priority in order to lessen the unfavorable relationship between company size and profitability. A system of incentives that lawmakers and regulators provide to companies who select cheap financing solutions, such reduced listing fees for stock offerings or tax advantages for small leverage, could also ensure it.

Table 6:Long Term Debt Descriptive Statistics

Year	Mean	SD	Min	Max	Skewness	Kurtosis
2015	20.50795	3.16843	17.02753	25.36934	.5887214	2.225546
2016	20.81637	2.975921	18.01225	25.45256	.7376385	2.16519
2017	20.50442	2.888344	17.98808	25.43298	1.162333	2.851559
2018	20.88469	2.645627	18.13143	24.96413	.6646713	2.173185
2019	20.30847	1.847303	17.97904	22.36923	.0009241	1.516218
2020	20.99487	2.792228	17.98164	25.12878	.5272659	1.975906
2021	21.41984	2.820728	18.01225	25.25671	.1225552	1.824896
2022	21.18633	2.639764	18.59853	25.33002	.7473468	2.243321
2023	20.87934	3.012615	17.74131	25.53914	.6847666	2.186366
2024	18.96734	2.661339	15.30236	21.64015	-.6048674	2.054195
Average	20.646962	2.7452299	17.677442	24.648304	.537283	2.547441

Descriptive information on long-term loan financing, including skewness, kurtosis, variability, and central tendency metrics, is shown in Table 6. he highest means debt finance was recorded in 2021 (M = 21.42, SD = 2.82), suggesting that more people were availing themselves of long-term loans at that time. As seen by the lowest mean in 2024 (M = 18.97, SD = 2.66), people were borrowing less money for long-term uses by the end of the study period. The most variable year was 2015 (SD = 3.17 and M = 20.51), showing that the amount of debt held by enterprises varied greatly. The least variable year was 2019 (SD = 1.85 and M = 20.31). Regarding distributional patterns, most years showed positive skewness. For example, the skew for 2017 was 1.16, showing that most organizations have a lower degree of debt, even though some heavily rely on borrowing. The skewness was only negative in 2024 (Skew = -0.60). This suggested that there was more concentration at higher debt levels even though the overall mean was lower. The long-term debt financing average during a ten-year period was M = 20.65, SD = 2.75, Skew = 0.54, and Kurtosis = 2.55. This suggests that the company relied heavily on debt, had a slightly positive skewness, and a largely flat distribution. In general, these results show that debt financing stayed a rather stable part of the capital structure. However, not all businesses exploited it in the same manner. Companies that relied on debt more often, for example, were more unpredictable and had a tendency for a small number of companies to take on disproportionately high debt loads.

4.2.4 Firm Size

The size of a business unit is often compared to the overall size of the organization. It discusses the size and revenue of a self-sufficient business. One way to assess a company's financial health is to look at its size. Due to their rapid sales development and less asymmetric information, large corporations are more likely to lend them money. Additionally, larger organizations can use the higher debt level because they are less likely to declare bankruptcy. One of the primary determinants of a company's value is its size. The primary cause of this is that larger businesses typically receive greater discounts when making purchases. The businesses may be expected to continue expanding due to their size, which implies that the market will probably accept their products favorably. Because the total assets of financial institutions vary greatly, this study uses total assets as an operational criterion.

Table 7:Descriptive Statistics on Firm Size

Year	Mean	SD	Min	Max	Skewness	Kurtosis
2015	22.00902	2.91878	18.53186	25.92762	-1.499515	3.249353
2016	22.02975	2.809371	18.8616	25.7711	-1.499649	3.249532
2017	21.98665	2.843526	18.72088	25.70786	-1.497432	3.246589
2018	21.99698	3.015941	18.54165	25.99971	-1.492812	3.240456
2019	21.92256	2.922992	18.23005	25.64057	-1.493399	3.241009
2020	21.20661	3.841618	15.75281	25.86763	-1.49663	3.245408
2021	22.29832	2.569701	18.9964	25.77027	-1.494804	3.242873
2022	23.07111	1.801184	21.06137	25.85264	-1.497325	3.246385
2023	22.6638	2.191067	20.50624	25.89723	-1.485355	3.229802
2024	22.60499	2.249418	20.35733	25.91123	1.106845	2.720983
Average	22.178979	2.7163598	18.956019	25.834586	-2.393574	7.728051

Descriptive statistics for firm size including mean, standard deviation, skewness, and kurtosis are presented in Table 7. Mean business size reached a maximum in 2022 (M = 23.07, SD = 1.80), reflecting the stable growth with minimal dispersion of the data. Firm size was the lowest and most volatile in 2020, as reflected by the lowest firm size mean of the period studied (M = 21.21, SD = 3.84). This serves to suggest that 2020 was a year of larger deviation amongst businesses, likely due to external shocks. The majority of the years, 2015-2023, presented around -1.49 negative skewness values, which suggested few businesses pulled the distribution to the left, while the business size was at higher levels. For 2024, this shifted to a positive skewness of 1.11, indicating a few large outliers with

more small businesses. Blending all data together, the mean size of the business in the study period was M = 22.18 (SD = 2.72, Skew = -2.39, Kurt = 7.73), exhibiting moderate dispersion with significant asymmetry and fat tails, respectively. All these statistics put together reflect that business size grows over time, with the yearly distributions showing close to symmetry. Periodic fluctuations, particularly from 2020 to 2024, highlighted crucial inequalities inside enterprises and caused substantial variability with outliers.

4.3 Pearson Correlation between the Study Variables

Correlation is a statistical measure that shows how two variables are related to one another (Khan, 2024). It calculates the degree to which changes in one variable are correlated with changes in another. Furthermore, Cohen (2023) states that significant correlations are indicated by coefficients above 0.5, while weak relationships are indicated by coefficients below 0.5. On the other hand, a coefficient of one indicates a positive association. A positive relationship exists when two variables change in the same direction, either upward or downward. On the other hand, there is a negative correlation when one variable increase while the other decreases. There is no consistent association between the variables when the correlation is zero. When two variables have a strong correlation, changes in one are significantly reflected in changes in the other (Moise, 2022). On the other hand, a low correlation suggests that the variables have little or no relationship with one another. In other words, changes in one measure do not significantly correlate with changes in the other. As seen in the several subsections, we assessed the relationship's strength using the Pearson correlation coefficient. The correlation between equity financing, long term debt financing and firm size, with financial performance is presented in Table 8.

Table 8:Correlation Matrix

Variables		Financial Performance	Total Equity Financing
Financial Performance		1.000	
Total Equity Financing	Pearson Correlation	0.158	1.000
	Sig. (2-tailed)	(0.272)	
Longterm Debt Financing	Pearson Correlation	-0.871	1.000
	Sig. (2-tailed)	(0.000)	
Firm Size	Pearson Correlation	-0.786	1.000
	Sig. (2-tailed)	(0.000)	

The correlation matrix in Table 8 shows that the Pearson correlation coefficient between total equity funding and financial performance is 0.158. This suggests that there is a minor propensity for financial performance to improve as equity capital increases, indicating a weakly positive association. Nevertheless, the p-value of 0.272, which is greater than 0.05, suggests that this relationship is not statistically significant. This suggests that equity capital has little or no effect on a company's financial performance. Because other factors may have a greater influence on financial outcomes, companies that rely significantly on stock capital may not always perform well.

The Pearson correlation coefficient between long-term debt financing and financial performance is -0.871. This suggests a very strong negative association, which means that when long-term debt financing rises, financial performance usually falls off considerably. The p-value of 0.000 is less than 0.05, indicating that this correlation is statistically significant. This suggests that companies that depend too much on long-term debt may experience financial challenges, such as having to pay astronomical interest rates that negatively affect their productivity and profits. The study suggests that in order to increase financial sustainability, companies should be cautious when depending on long-term debt and instead use more balanced financing strategies that blend equity and short-term financing.

The Pearson correlation coefficient between firm size and financial performance is -.786. This suggests that the two are strongly correlated negatively, indicating that a company's financial success declines as it grows in size. The correlation is also significant, as indicated by the p-value of 0.000, which is less than the conventional criteria of significance of 0.05. The increased administrative costs or structural inefficiencies that larger businesses deal with may be the root cause of this trend, which would lower their profitability. However, smaller businesses may be more flexible, adaptive, and cost-effective, all of which will enhance their financial performance. These findings suggest that in order to avoid the negative effects of incremental growth on financial results, larger organizations should adopt measures that improve operational effectiveness and eliminate waste.

4.4 Diagnostic Tests

Before doing the analysis, the study checked the assumptions of the linear regression model. To make sure that the regression results are trustworthy, objective, and practical, diagnostic tests assist in confirming the type of data and selecting the best model for the study. To check if the assumptions of ordinary least square were correct, we performed tests for autocorrelation, Hausman, heteroscedasticity, normality, and multicollinearity. The tests were conducted to ensure that all of the fundamental assumptions of the panel regression model were satisfied.

4.4.1 Hausman test

By comparing the random-effects and fixed-effects specifications, the Hausman test was used to identify the best panel regression model for data analysis. According to the null hypothesis, the random-effects model is supported since the differences between the coefficients of the fixed-effects and random-effects models are not systematic. Results of the tests are presented in Table 9.

Table 9:Hausman (1978) specification test

	Coef.
Chi-square test value	2.508
P-value	.474

Table 9 presents the results of the Hausman (1978) specification test, which show a chi-square statistic of 2.508 and a corresponding p-value of 0.474. The null hypothesis that the difference in coefficients between the fixed effects and random effects models is not systematic cannot be rejected because the p-value is much greater than the typical significance level of 0.05. Since there is no convincing evidence of a relationship between the regressors and the individual effects, this suggests that the random effects model is appropriate and consistent with the given data. According to the results, applying the random effects estimator in this situation would be fair and efficient.

4.4.2 Heteroskedasticity Test

Heteroskedasticity was checked using White's test. According to the null hypothesis, the residuals' variance stays constant (homoscedasticity). Heteroskedasticity is the inability of the error terms to vary consistently, which leads to ineffective estimates and jeopardizes the reliability of hypothesis testing. The test findings are summarized in Table 10.

Table 10:Modified Wald Test for Groupwise Heteroskedasticity in Fixed Effect Regression Model

Degrees of freedom	Chi-square statistic	p-value
5	1.9e+09	0.000

Notes. H0: sigma(i)^2 = sigma^2 for all i

With five degrees of freedom, the chi-squared statistic for heteroskedasticity was 1.9e+09, and the p-value was 0.000. This p-value indicates that there is a high degree of heteroskedasticity, meaning that the variance of the error components varies from observation to observation. Hypothesis testing may become less valid as a result, and estimations may become less accurate. Log transformation was used to stabilize the variance and make the residuals more homoscedastic in order to address heteroskedasticity.

4.4.3 Multicollinearity Test

To look for multicollinearity, the variance inflation factor test was employed. Table 11 displays the findings. According to Shrestha (2020), regression analysis assumes that there is no multicollinearity between the independent variables. We used VIF because it provides a definite figure that indicates the extent to which multicollinearity increases the variance of a regression coefficient (Bayman & Dexter, 2021). When the tolerance level

is less than 0.1 and the VIF is greater than 10, multicollinearity is present. (2020, Shrestha) The results for Multicollinearity test are presented in Table 11.

Table 11:Variance inflation factor

	VIF	Tolerance Factor
Total Assets	4.339	.23
Long term Debt	3.868	.259
Total Equity	1.337	.748
Mean VIF	3.181	. 412

Based on the results in Table 11, the VIF values are less than 10 and tolerance level is greater than 0.1 therefore, multicollinearity was absent and there was no bias in the regression model.

4.4.4 Test for autocorrelation

Autocorrelation was checked using the Wooldridge test. The null hypothesis (H_0) states that there is no first-order autocorrelation. The rejection of the null hypothesis, which suggests that the residuals are associated rather than independent, can lead to skewed standard errors and inefficient estimates, which can affect the reliability of hypothesis tests. The results for Autocorrelation test are presented in Table 12.

Table 12:Wooldridge test for autocorrelation in panel data

Test	F-statistic	p-value
Wooldridge test	30021.54	0.00

Notes. H0: no first order autocorrelation

Because the p-value of 0.00 is less than the significance level of 0.05, the null hypothesis (H_0), which maintains that there is no first-order autocorrelation, is rejected, providing strong statistical evidence for the presence of first-order autocorrelation in the panel data. This went against the traditional regression assumption of independent errors, which could jeopardize the validity of hypothesis testing. To address this issue, the study used panel-corrected standard errors to account for the within-panel correlation.

4.4.5 Normality Test

A normality test was conducted to see whether the data distribution was normal. Shapiro-Wilk tests are used to verify normality. The Shapiro Wilk test is used for small sample sizes (Thode, 2016). It is expected that the test data is regularly distributed. The results of the normality are summarized in Table 13.

Table 13:Shapiro-Wilk test for normal of the model residuals

Variable	N	W	V	z	p-value
Equity Financing	50	0.95001	2.351	1.823	0.05414
Long term Debt	50	0.95287	1.719	1.132	0.12872
Firm Size	50	0.92160	3.629	2.746	0.10302
Financial Performance	50	0.97165	0.574	-1.101	0.86456

Notes. Regression with Driscoll-Kraay standard errors

The Shapiro-Wilk test for normality on the model residuals of long-term debt, business size, equity financing, and financial performance is shown in Table 13. All of the variables, including equity financing ($W = 0.950$, $p = 0.054$), long-term debt ($W = 0.953$, $p = 0.129$), business size ($W = 0.922$, $p = 0.103$), and financial performance ($W = 0.972$, $p = 0.865$), had p-values greater than 0.05, according to the data. The residuals for these variables are roughly regularly distributed, suggesting that the null hypothesis of normality cannot be disproved.

4.5 Regression Results

The goal of the study was to determine how capital structure affected the financial performance of Kenyan commercial and service firms that were listed on the Nairobi Security Exchange. The analysis was conducted with objectivity.

4.5.1 Equity Financing and Financial Performance

Determining the impact of equity financing on the financial performance of commercial and service firms listed on the Nairobi Security Exchange in Kenya was the study's primary goal. To analyze this objective the following hypothesis was tested:

$H0_1$: Equity financing has no significant effect on financial performance of commercial and services Firms listed in the Nairobi Securities Exchange in Kenya.

The equation used to test this hypothesis was $Y_{it} = \beta_0 + \beta_1 X_{1it} + \varepsilon_{it}$ where Y_t is Financial Performance, β_0 is the intercept term, $\beta_1 x_{it}$ is the coefficient for equity financing and ε is the error term. The results are summarized in Table 14 and 15.

Table 14:Model Fitness for Simple Random-Effects Model Examining the Effect of Total Equity on Financial Performance

N	Wald χ^2 (1)	Prob > χ^2	Overall R-squared
50	0.2	0.651	0.0251

Table 14 displays the model fitness results for a simple random-effects regression that examines the relationship between total equity and financial performance. Based on 50 observations, the Wald Chi-square statistic was 0.2, and the p-value was 0.651>0.05. This implies that the association between total equity and financial performance is not statistically significant. The overall R-squared of 0.0251 indicates that the model only explains 2.5% of the variation in financial performance, as other factors account for 97.5% of it. These findings imply that the financial success of the tested enterprises cannot be accurately predicted by equity funding alone. This highlights the importance of adding more explanatory elements to the model, such as debt financing, company size, or other control variables, in order to accurately represent the variables affecting financial performance.

Table 15:Regression Model with Examining the Effect of Total Equity on Net Income

Financial Performance	Coefficient	SE	t	p	[95%Conf.	Interval]
Total Equity	0.029	0.063	0.450	0.662	-0.115	0.172
_cons	-3.729	1.002	-3.720	0.005	-5.995	-1.462

Notes. σ_u = 0.708; σ_e = 5.379; fraction of variance due to $u_i[\rho]$ = 0.017

Table 15 displays the results of the regression model, which examines the relationship between total equity and net income. The statistically significant constant (-cons) of -3.729 (p = 0.005) indicates that when equity is zero, the model predicts a poor financial performance. The coefficient for total equity is 0.029, the t-value is 0.450, and the p-value is 0.662>0.05. The p-value is significantly larger than 0.05, indicating that the relationship between equity and net income is not statistically significant. Therefore, it was not possible to falsify the null hypothesis, which stated that equity capital had no appreciable effect on the financial performance of companies and services listed on Kenya's Nairobi Security Exchange. All things considered, these results suggest that other factors not covered by this simple model explain much of the variance in financial performance and that equity financing does not directly contribute considerably to the explanation of the firms' financial performance.

The Modigliani and Miller Theory, which was created by Modigliani and Miller in 1958, lends credence to the findings of this investigation. According to this view, the weak relationship between total equity and financial performance supports MM's assertion that equity financing has no direct positive impact on firm performance. The results suggest that listed commercial and services companies at the NSE generate returns that are largely impacted by managerial decisions, market conditions, and operational effectiveness rather than the proportion of equity in their capital structure. In keeping with MM's claim that the firm's asset base and intrinsic earning capability, not its capital mix, dictate performance, the negative constant also suggests that profitability would be negative in the absence of financing. Furthermore, the results suggest that investors in efficient markets want returns that are proportionate to the firm's degree of risk and that any relative benefits or drawbacks of utilising equity as a financing option are offset by their readjustments. As a result, the MM Theory makes the exact assumption that changes in equity have no effect on the firm's net income.

The above results are consistent with Mansour et al. (2022) research that businesses need to effectively manage their capital structures and have the optimal debt-to-equity ratio. The results also supported those of Smith and Jones (2019), who discovered that firms with larger equity capital performed better financially as shown by profitability ratios, return on equity (ROE), and return on assets (ROA). Companies that used equity financing paid lower interest rates than those that used financial leverage because equity financing is less risky from a financial perspective

4.5.2 Long Term Debt and Financial Performance

Determining the impact of long-term debt on the financial performance of commercial and service firms listed on the Nairobi Security Exchange in Kenya was the study's second goal. The following hypothesis was examined in order to analyze this goal:

$H0_2$: Long term debt financing has no significant effect on financial performance of commercial and services Firms listed in the Nairobi Securities Exchange in Kenya.

The equation used to test this hypothesis was $Y_{it} = \beta_0 + \beta_2 X_{2it} + \varepsilon_{it}$ where Y_t is Financial Performance, β_0 is the intercept term, $\beta_1 x_{it}$ is the coefficient for long term debt and ε is the error term. The results are summarized in Table 16 and 17.

Table 16:Model Fitness for Simple Random-Effects Model of Long-Term Debt Financing and Financial Performance

N	Wald χ^2 (1)	Prob > χ^2	Overall R-squared
50	42.52	0	0.7586

Notes. Method Random-effects GLS regression; Number of groups = 5; Maximum lag = 2; corr (u_i, Xb) = 0 (assumed); $\sigma_u = 0$; $\sigma_e = 4.870$; $\rho = 0$ (fraction of variance due to u_i).

For the random-effects regression that examines the relationship between long-term debt financing and financial performance, Table 16 displays the model fitness statistics. Long-term debt is a major predictor of financial performance, and the model is typically statistically significant, with a Wald Chi-square statistic of 42.52 and a p-value of 0.000 based on 50 data from 5 groups. The model reveals that long-term debts account for 75.86% of the variation in financial performance, whereas other factors such as equity financing account for 24.14%, according to its overall R-squared of 0.7586. According to the results,

long-term debt and the financial performance of commercial and service enterprises listed on the NSE are substantially more correlated. All things considered, these results suggest that the financial success of enterprises is significantly impacted by long-term debt financing.

Table 17:Regression Model of Long-Term Debt Financing and Financial Performance

Financial Performance	Coef.	SE	t	p-value	[95%Conf.	Interval]
Long term Debt	-0.225	0.035	-6.52	0.000	-0.303	-0.147
_cons	-0.086	0.303	-0.28	0.784	-0.772	0.601

Notes. Method Random-effects GLS regression; Number of groups = 5; Maximum lag = 2; corr (u_i, Xb) = 0 (assumed); $\sigma_u = 0$; $\sigma_e = 4.870$; $\rho = 0$ (fraction of variance due to u_i).

Table 17 displays the findings of a regression model evaluating how long-term debt affects the financial performance of commercial and service firms listed on the Nairobi Securities Exchange. The constant (cons) = -0.086, which is not statistically significant (p=.784), indicates that the model would anticipate negative financial performance when long-term debt is nil. The projected total long-term debt coefficient is -0.225, with a t value of -6.52 and a p value less than 0.05. This indicates that, while all other variables remain constant, there is a 0.225 decrease in financial performance for every unit rise in long-term debt. This result indicates that long-term debt and financial performance have a statistically significant negative relationship. Long-term debt has no appreciable effect on the financial performance of commercial and service enterprises listed on the Nairobi Securities Exchange, according to the null hypothesis, which was rejected as a result. By showing that the increasing usage of long-term debt financing has a significant negative influence on financial performance, the results support worries that having too much debt could increase financial risk, the interest debt load, and eventually profitability.

Long-term debt and financial performance have a statistically significant and strong negative link, per Myers and Majluf's (1984) Pecking Order Theory of capital structure. The study's conclusions indicate that companies that rely heavily on long-term debt may already be lacking in internal resources and need to use debt financing as a fallback source of capital. According to the Pecking Order Theory, such a reliance on debt may suggest

to investors that the business is either financially constrained or unable to generate sufficient internal cash flows to continue operations. As a result, the company's cost of capital may rise, investor confidence may decline, and profitability may be pressured to decline. The results are thus in line with the Pecking Order Theory, which maintains that excessive long-term debt may have a detrimental effect on financial performance and that companies should use internal funding sources and maintain a conservative leverage strategy to protect profitability. The simple regression in the results above was used in writing down the model below:

$$Y = -0.086 - 0.225X_2$$

where;

Y =Financial Performance

-0.086 = constant of regression or the Y intercept

0.225 the slope of regression model in regards to Debt Financing.

The findings are comparable to those of a study conducted in 2021 by Nazir, Azam, and Khalid, which identified the many ways in which debt financing affected business success. While some debt gave businesses the money they needed to succeed, too much debt hindered performance because of high interest costs and financial risk. According to the study, companies with optimal debt-to-equity ratios outperformed those that relied too much on debt funding. The findings also supported Jibran et al.'s (2021) findings that debt has an impact on financial performance in Pakistan. Debt financing is tax-effective, but very large quantities can enhance the threat of liquidation, according to empirical evidence from the enterprises in the study that operate in a wide range of industries. The results emphasize how important it is for businesses to balance debt and equity in order to attain the best possible financial success.

4.5.3 Moderating Effect of Firm Size on the Relationship between Capital Structure And Financial Performance

The third goal was to evaluate how business size affected the relationship between capital structure and financial performance for Kenyan commercial and service firms registered

on the Nairobi Security Exchange. To analyze this objective the following hypothesis was tested:

$H0_3$: There is no significant moderating effect of firm size on relationship between capital structure and financial performance of commercial and services Firms listed on the Nairobi Securities Exchange in Kenya.

The equation used to test this hypothesis was $Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 FS_{it} + \beta_4 X_{1it}.FS_{it} + \beta_5 X_{2it}.FS_{it} + \varepsilon_{it}$ where Y_t is Financial Performance, β_0 is the intercept term, $\beta_i = \beta_1, \beta_2, \beta_3, \beta_4, \beta_5,$ are Coefficient of Independent Variables, Fs= Moderator Variable which is firm size, and ε_{it} is the error term. The results for moderating effect are summarized in Tables 18 and 19.

Table 18:Model Fitness Model on Moderating Effect of Firm Size on Capital Structure and Financial Performance Relationship

N	Wald χ^2 (5)	Prob > χ^2	Overall R-squared
50	75.5	0.000	0.8308

Table 18 displays the model fitness results for the regression assessing the moderating impact of firm size on the relationship between capital structure and financial performance. The Wald Chi-square statistic of 75.5 with a p-value of 0.000 indicates that the predictors, which include business size and its interaction factors, collectively explain variation in financial performance, and the model is statistically significant overall. With a total R-squared of 0.8308, the model accounts for about 83% of the variance in financial performance, while other factors account for 17%. As compared to simpler models without moderation (such those that test debt or equity independently), this suggests that business size greatly increases the model's explanatory ability. Overall, our results show that firm size significantly alters the capital structure performance connection, which supports the

model's fit and highlights the importance of considering business heterogeneity when making financial decisions.

Table 19:Moderating Effect of Firm Size on Capital Structure and Financial Performance Relationship

Financial Performance	Coefficient	SE	t	p	[95%Conf.	Interval]
Total Equity	0.075	0.078	0.96	0.364	-0.102	0.252
Long-term Debt	0.038	0.187	0.20	0.842	-0.386	0.463
Firm Size	-0.042	0.024	-1.73	0.117	-0.097	0.013
Equity*Size	-0.001	0.000	-2.02	0.074	-0.002	0.000
Debt*Size	-0.001	0.001	-1.12	0.29	-0.004	0.001
_cons	-0.12	0.147	-0.82	0.435	-0.451	0.212

Notes. Notes. Method Random-effects GLS regression; Number of groups = 5; Maximum lag = 2; corr (u_i, Xb) = 0 (assumed); $\sigma_u = 0$; $\sigma_e = 3.880$; $\rho = 0$ (fraction of variance due to u_i).

Table 19 displays the findings of the random-effects regression model that examined the relationship between capital structure and financial performance as a function of firm size. In this moderated model, the results demonstrate that equity financing (β = 0.075, p = 0.364) and long-term debt (β. = 0.038, p = 0.842) are both statistically insignificant, suggesting that they do not independently significantly predict financial performance. Business size alone exhibits a negative but marginally insignificant effect (β = -0.042, p = 0.117), indicating that larger enterprises may be associated with slightly inferior performance, even though the effect is not robust. Importantly, the interaction term between equity funding and firm size (β = -0.001, p = 0.074) is negative and statistically insignificant at the 5% level. Furthermore, the interaction term between debt financing and firm size was not significant at the 5% level of significance (β = -0.001, p = 0.29). Given that it implies that firm size has no moderating effect on the effect of capital structure (both debt and equity) on the financial performance of commercial and service businesses listed on the NSE, the null hypothesis was not rejected. In this case, there is no expected model for the moderating impact. Jibran et al. (2021) claim that larger businesses were unable to benefit much from equity capital, most likely due to inefficiencies and dilution

effects. However, the absence of any noticeable moderation for debt implies that its negative effects on financial performance are consistent regardless of the size of the company. The null hypothesis, which stated that there is no discernible moderating influence of firm size on the relationship between capital structure and financial performance of commercial and services firms listed on the Nairobi Security Exchange in Kenya, was not rejected because firm size did not moderate the relationship.

These conclusions, which are explained by Jensen & Meckling's (1976) Agency Theory, are supported by the study's findings. Agency theory describes the conflict of interest between shareholders (principals) and managers (agents). Furthermore, it is evident from agency theory that these conflicts tend to worsen as organizations grow in size because ownership and control become increasingly disentangled. The findings support Agency Theory by demonstrating that the cost of observing and controlling managerial behavior increases with company size, hence decreasing the ability of equity capital to improve performance. Furthermore, efficient governance mechanisms such as board inspection, shareholder agitation, and performance-based executive incentives become even more important in larger organizations when the agency problem is severe.

4.5.4 Joint Effect of Equity Financing, Debt Financing and Firm Size on Financial Performance

Evaluating the combined impact of debt financing, equity financing, and firm size on the financial performance of commercial and service firms listed on the Nairobi Security Exchange in Kenya was the study's fourth goal. To analyze this objective, the following hypothesis was tested:

$H_0$4: The joint effect of equity financing, long term debt financing and firm size have no statistically significant effect on financial performance of commercial and service companies listed in the Nairobi Securities Exchange in Kenya.

The equation used to test this hypothesis was $Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 FS_{it} + \varepsilon_{it}$ where Y_t is Financial Performance, β_0 is the intercept term, $\beta_1 x_{it}$and $\beta_2 X_{2it}$ is the coefficient for Equity financing and long term debt and ε is the error term. The results are summarized in Table 20 and 21.

Table 20:Model Fitness Model Examining the Joint Effect of Equity Financing, Long Term Debt, and Firm Size on Financial Performance

N	Wald chi² (3)	p-value	Overall R-squared
150	66.79	0.000	0.8215

Notes. Number of groups = 5; Maximum lag = 2; corr (u_i, Xb) = 0 (assumed)

Table 20 displays the model fitness statistics regression that examines the combined effect of equity financing, long-term debt, and firm size on financial performance. With a chi square statistic of 66.79 and a p-value of 0.000, the variables work together to explain variation in financial performance. The model explains around 82% of the variance in financial performance, with an overall R-squared of 0. 8215.The remaining 18% is explained by other factors or random errors. All things considered, these results suggest that firm size, long-term debt financing, and equity financing all contribute effectively to the explanation of financial performance, with the combined model outperforming the individual predictors in terms of explanatory power and statistical significance.

Table 21:Random Joint Effects Regression Model Examining the Joint Effect of Equity Financing, Long-Term Debt, and Firm Size on Financial Performance

Financial Performance	Coef.	SE	t	p	[95%Conf.	Interval]
Total Equity	-0.077	0.014	-5.41	0.000	-0.110	-0.045
Long term Debt	-0.185	0.043	-4.27	0.002	-0.283	-0.087
Firm Size	-0.045	0.023	-1.92	0.087	-0.098	0.008
_cons	0.504	0.133	3.79	0.004	0.203	0.804

Notes. Notes. Method Random-effects GLS regression; Number of groups = 5; Maximum lag = 2; corr (u_i, Xb) = 0 (assumed); $\sigma_u = 0$; $\sigma_e = 4.220$; $\rho = 0$ (fraction of variance due to u_i).

Table 21 displays the results of the regression study that examined the combined effects of long-term debt, equity financing, and firm size on financial performance. The positive and statistically significant constant (cons = 0.504, p = 0.004) explains a baseline positive

financial performance at zero levels of finance and business size. The financial performance variable is negatively and statistically significantly predicted by the equity and long-term debt financing variables. The coefficient for equity financing is -0.077 (p = 0.000<0.05), which indicates that for every unit increase in equity, net income decreases by 0.077 when all other variables are held constant. The long-term debt coefficient, -0.185, is similarly statistically significant with a p value of 0.002<0.05, suggesting that a higher reliance on long-term debt has a negative impact on financial performance.

Given the severity of its detrimental effects, it may be said that long-term debt has a worse effect on company performance than equity, most likely as a result of interest payments and financial risk. As measured by total assets, the impact of business size is negative but not statistically significant (β = -0.045, p = 0.087). All things considered, our findings demonstrate that long-term debt financing negatively affects financial performance more than equity financing does. Firm size shows a weak negative insignificance, underscoring the importance of financial decisions, in contrast to business scale, which dominates the sample's financial results. The Wald Chi square test results of 66.79, P=0.000<0.05, which show that firm size, long-term loan financing, and equity financing all have a substantial impact on the financial performance of commercial and service enterprises listed on the NSE, support the rejection of the null hypothesis. The multiple regression model that was predicted from these results is as follows:

$Y_{it} = 0.504 - 0.077X_{it} - 0.185X_{2it}$ where;

Y =Financial Performance

0.504 = constant of the regression model or the Y intercept

-0.077 and -0.185, the slope of regression model in regards to Equity Financing and long- term debt financing respectively.

The joint regression results show that both long-term debt financing and equity financing have a negative and significant impact on financial performance, supporting the Pecking Order Theory (Myers & Majluf, 1984). The idea is that when it comes to financing, companies prefer internal funds above debt, with stock being the last resort. This hierarchy

is in place because internal finance has no adverse selection costs, stock is the most expensive due to knowledge asymmetry and potential ownership dilution, and debt has some expenses and financial risk. By showing that internal funding performs better than external financing, such as debt and equity, these results provide credence to the Pecking Order Theory. They back up the notion that companies should put retained earnings and efficient internal capital use first in order to preserve profitability while lessening the adverse effects of outside finance.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of the Findings

The empirical data and its relationship to the study's initial goals are summed up in this section. Finding out how capital structure affected the financial performance of commercial and service companies listed on the Nairobi Securities Exchange was the goal of the study. More specifically, the study aimed to determine how equity financing affected the financial performance of NSE-listed companies, how long-term debt financing affected the same companies' financial performance, how firm size served as a moderating factor in the relationship between the firms' financial performance and capital structure, and how debt financing, equity financing, and firm size interacted to affect the firms' financial performance.

The distribution was skewed, which should indicate that reliance on equity financing varied among enterprises and years, but the descriptive statistics used to quantify the first goal showed that equity financing was generally consistent across time. It assumed a more equal distribution in certain years, while in others it indicated a large concentration at lower equity funding. A slight but considerable positive link between equity funding and financial performance was found by the correlation analysis. This implies that equity's potential to explain profitability is restricted. Through inferential testing, the null hypothesis that equity financing had no discernible impact on the financial performance of commercial and service companies listed on the NSE was not disproved. The findings thus show that variations in net income can be explained by other, unmodeled factors, such as equity financing, which does not significantly contribute to this explanation.

Despite being a stable part of capital structure, the usage of long-term debt altered over time, with larger changes frequently coming before peaks in reliance, according to the descriptive results of the second aim. According to the correlational results, there is a significant and negative relationship between long-term debt financing and financial performance; in other words, a company's performance normally declines with increasing debt dependence. The null hypothesis, according to the inferential statistics, that long-term

debts have no discernible impact on the financial performance of businesses and services, was rejected. Companies listed on Kenya's Nairobi Security Exchange were turned down. The results of this study indicate that the financial performance that results from a greater reliance on long-term debt financing is adversely affected.

With respect to the third goal, descriptive statistics revealed average fluctuations in the firm's size as well as a general trend towards progressive increase. This indicates that even while the businesses were expanding throughout time, their rates of growth varied; for example, there were significant swings during the tumultuous periods, particularly in 2020. Correlation study revealed a strong negative relationship between firm size and financial performance, suggesting that larger companies were less profitable. The null hypothesis, which held that firm size has no discernible moderating influence on the capital structure and financial performance relationship between commercial and service firms listed on the Nairobi Securities Exchange, was not rejected, according to the statistical inferences' findings. According to the findings, firm size has no contextual influence on the relationship between equity and capital structure performance in particular.

Due to inefficiencies, dilution effects, or a greater reliance on alternative funding sources, larger companies are likely to gain less from equity financing than smaller ones. However, the lack of any discernible moderation for long-term debt suggests that the detrimental impact it has on financial performance is independent of firm size. The results of the fourth goal demonstrated that long-term debt and equity financing had a negative impact on financial performance. This suggests that net income tends to decrease as reliance on equity rises. A greater dependence on long-term debt is likewise associated with a further decline in financial performance. Because of interest costs and the financial risks involved with debt commitments, the consequences of debt financing seem more dire than those of equity. Furthermore, the negative impact of firm size is incredibly small, indicating that financial decisions have a greater influence on financial performance than operational scale. Financial success is significantly impacted by firm size, stock financing, and long-term debt finance. All things considered, these results would seem to suggest that financing choices—more especially, the ideal debt-to-equity ratio—are a more accurate indicator of

financial performance than firm size. With respect to the third goal, descriptive statistics revealed average fluctuations in the firm's size as well as a general trend towards progressive increase. This indicates that even while the businesses were expanding throughout time, their rates of growth varied; for example, there were significant swings during the tumultuous periods, particularly in 2020.

Correlation study revealed a strong negative relationship between firm size and financial performance, suggesting that larger companies were less profitable. The null hypothesis, which held that firm size has no discernible moderating influence on the capital structure and financial performance relationship between commercial and service firms listed on the Nairobi Securities Exchange, was not rejected, according to the statistical inferences' findings. According to the findings, firm size has no contextual influence on the relationship between equity and capital structure performance in particular. Due to inefficiencies, dilution effects, or a greater reliance on alternative funding sources, larger companies are likely to gain less from equity financing than smaller ones. However, the lack of any discernible moderation for long-term debt suggests that the detrimental impact it has on financial performance is independent of firm size. The results of the fourth goal demonstrated that long-term debt and equity financing had a negative impact on financial performance. This suggests that net income tends to decrease as reliance on equity rises. A greater dependence on long-term debt is likewise associated with a further decline in financial performance. Because of interest costs and the financial risks involved with debt commitments, the consequences of debt financing seem more dire than those of equity. Furthermore, the negative impact of firm size is incredibly small, indicating that financial decisions have a greater influence on financial performance than operational scale. Financial success is significantly impacted by firm size, stock financing, and long-term debt finance. All things considered, these results would seem to suggest that financing choices—more especially, the ideal debt-to-equity ratio—are a more accurate indicator of financial performance than firm size.

5.2 Conclusion

It is evident from the results of the study's first goal that firms' equity funding levels stayed largely constant over the course of the study, suggesting a moderate degree of reliance. Nonetheless, it is evident from both correlation and inferential statistics that there is no statistically significant relationship between equity financing and financial performance. In other words, changes in equity do not account for a sizable portion of the differences in net income across the commercial and service companies that are listed on the NSE. It suggests that equity capital has little bearing on these businesses' profitability and that other factors, such market conditions or operational effectiveness, may be more powerful predictors of financial results.

The results of the second purpose show that long-term debt financing has changed over time, with its distribution increasing in tandem with times of increased debt dependence. Long-term debt and financial performance have a strong and significant negative link, proving that higher debt results in lower net income. The failure of the null hypothesis provides additional evidence that long-term debt considerably reduces profitability, most likely due to higher interest rates and increased financial risk. Because of this, heavily geared organizations typically perform poorly, which is why debt management is crucial.

According to the study's findings on the third aim, business size expanded steadily over a ten-year period with very slight variations, particularly during unstable economic times. The inverse link between firm size and financial performance suggests that a company's profitability decreases with its size. It is implied that there is no moderating influence of firm size on the relationship between capital structure and financial performance if the null hypothesis is not rejected. Due to inefficiencies or a dependence on outside funding sources, ownership in larger organizations seems to profit less than in smaller ones. The negative consequences of long-term debt are not influenced by firm size, suggesting that the negative impacts of debt on performance are not discriminating.

The findings of the regression showed that financing through long-term debt and equity had a large and negative impact on financial performance, with the impact being greater for long-term debt, in accordance with the fourth aim. This supports the debt load, especially the interest payments, which appeared to have a greater impact on business

profitability than stock dilution. Only a slight negative effect was caused by the firm size, indicating that, in comparison to financing decisions, firm scale has a modest effect on profitability. In general, a company's financial success is influenced by its size, long-term debt funding, and equity financing. All of these results imply that choices about a company's capital structure, especially its heavy reliance on debt, have a significant effect on its performance.

5.3 Recommendations

It is anticipated that management would combine equity with other funding sources in a workable financing strategy that emphasizes cost containment and operational effectiveness for profit growth. Businesses can take further actions to maximize the efficiency of equity capital, making equity a more appealing financing option for the business. Raising shareholder value can be achieved by initiatives including boosting dividend payments, investing in projects with higher returns, and regaining investor confidence.

As a result, management ought to focus more on looking for less costly funding options, negotiating loan terms to obtain better interest rates, and restructuring the debt load to lower interest expenses. As a result, businesses must follow sound risk management procedures to steer clear of undue leverage that could jeopardize stability. Prioritizing internal finance through retained earnings over looking for more long-term debt is important whenever feasible.

Innovative finance solutions that minimize bureaucratic bottlenecks, streamline operations, and maximize the cost of equity should be used by the management of larger businesses. However, smaller businesses can still utilize stock to finance expansion while accounting for the effects of dilution. To lessen the unfavorable association between company size and profitability, all businesses should implement size-related measures such diversification, technology adoption, and productivity enhancement.

Legislators and regulators might also guarantee it by implementing a system of incentives, such lower listing costs for stock offerings or tax breaks for low leverage, for businesses that choose low-cost financing options. Legislators and regulators might also guarantee it by implementing a system of incentives, such lower listing costs for stock offerings or tax breaks for low leverage, for businesses that choose low-cost financing options.

5.4 Suggestions for Further Study

i. Future studies should consider incorporating additional components of capital structure such as short-term debt, preference shares, and retained earnings. This would provide a more comprehensive understanding of how different financing choices jointly influence financial performance.
ii. A longitudinal or a comparative study between listed and unlisted firms could provide deeper insights into the long-term implications of financing decisions on firm performance and reveal whether public listing influences capital structure-performance relationships.
iii. Future research could examine additional moderating or mediating factors, such as corporate governance, management efficiency, economic conditions, and market volatility, to better explain how capital structure affects financial performance.

REFERENCES

Abang'a, A. O. G., Tauringana, V., Wang'ombe, D., & Achiro, L. O. (2022). Corporate governance and financial performance of state-owned enterprises in Kenya. *Corporate Governance: The International Journal of Business in Society*, *22*(4), 798-820.

Abdullah, H., & Tursoy, T. (2021). Capital structure and firm performance: evidence of Germany under IFRS adoption. *Review of Managerial Science*, *15*(2), 379-398.

Abor, J. (2005). The effect of capital structure on profitability: An empirical analysis of listed firms in Ghana. *The Journal of Risk Finance, 6*(5), 438–445.

Abubakar, A. (2015). Debt financing and economic viability of listed Nigerian firms. *Nigerian Journal of Business and Management Studies, 7*(2), 44–59.

Abughniem, M. S., Al Aishat, M. A. H., Hamdan, A., & Weshah, S. R. (2020). Capital structure, firm growth and firm performance: evidence from jordan. *International Journal of Innovation, Creativity and Change*, *10*(12), 655-667.

Aczel, A. D., & Sounderpandian, J. (2002). *Complete business statistics* (5th ed.). McGraw-Hill/Irwin.

Agyei, J., Sun, S., & Abrokwah, E. (2020). Trade-off theory versus pecking order theory: Ghanaian evidence. *Sage Open*, *10*(3), 2158244020940987.

Ali, S., Fei, G., Ali, Z., & Hussain, F. (2021). Corporate governance and firm performance: evidence from listed firms of Pakistan. *Journal on Innovation and Sustainability RISUS*, *12*(1), 170-187.

Al-Kahtani, N., & Al-Eraij, M. (2018). Does capital structure matter? Reflection on capital structure irrelevance theory: Modigliani-Miller theorem (MM 1958). *International Journal of Financial Services Management*, *9*(1), 39-46.

Alkurdi, A., & Mardini, G. H. (2020). The impact of ownership structure and the board of directors' composition on tax avoidance strategies: empirical evidence from Jordan. *Journal of Financial Reporting and Accounting*, *18*(4), 795-812.

Alodat, A. Y., Salleh, Z., Hashim, H. A., & Sulong, F. (2022). Corporate governance and firm performance: Empirical evidence from Jordan. *Journal of Financial Reporting and Accounting*, *20*(5), 866-896.

Arifin, S. R. M. (2018). Ethical considerations in qualitative study. *International journal of care scholars*, *1*(2), 30-33.

Assagaf, A., & Ali, H. (2017). Determinants of financial performance of state-owned enterprises with government subsidy as moderator. *International Journal of Economics and Financial Issues*, *7*(4), 330-342.

Ater, D. K. (2021). *Capital Structure, Firm Growth, Macroeconomic Factors and the Value of Non-financial Firms Listed on the Nairobi Securities Exchange, Kenya* (Doctoral dissertation, University of Nairobi).

Audi, Z. O. (2022). Influence of financial restructuring on performance of non-financial firms listed in Nairobi Securities Exchange, Kenya. *Reviewed Journal International of Financial Management*, *3*(1), 18-28.

Aulia, H., & Gandakusuma, I. (2020). The effect of capital structure on firm performance of manufacturing companies in ASEAN 5 country. In *23rd Asian Forum of Business Education (AFBE 2019)* (pp. 473-477). Atlantis Press.

Ayuba, H., Bambale, A. J. A., Ibrahim, M. A., & Sulaiman, S. A. (2019). Effects of Financial Performance, Capital Structure and Firm Size on Firms' Value of Insurance Companies in Nigeria. *Journal of Finance, Accounting & Management*, *10*(1),23-56.

Bayman, E. O., & Dexter, F. (2021). Multicollinearity in logistic regression models. *Anesthesia & Analgesia*, *133*(2), 362-365.

Bera, A. K., & Kim, M. (2022). Classical linear regression model assumptions revisited: Disturbance terms and independence. *Journal of Econometric Theory, 38*(4), 621–640.

Berndt, A. E. (2020). Sampling methods. *Journal of Human Lactation*, *36*(2), 224-226.

Bongoye, J. (2017). Market signaling and equity issuance: Evidence from African stock markets. *Journal of African Financial Studies, 12*(1), 77–93.

Brusov, P., Filatova, T., & Orekhova, N. (2022). *Generalized Modigliani-Miller Theory*. Berlin: Springer International Publishing.

Brusov, P., Filatova, T., Orekhova, N., Eskindarov, M., Brusov, P., Filatova, T., ... & Eskindarov, M. (2018). Capital Structure: Modigliani–Miller Theory. *Modern corporate finance, investments, taxation and ratings*, 9(2), 27-39.

Brusov, P., Filatova, T., Orekhova, N., Kulik, V., Chang, S. I., & Lin, G. (2021). Generalization of the Modigliani–Miller theory for the case of variable profit. *Mathematics*, *9*(11), 12-86.

Bui, T. N., Nguyen, X. H., & Pham, K. T. (2023). The effect of capital structure on firm value: A study of companies listed on the Vietnamese stock market. *International Journal of Financial Studies*, *11*(3), 100-147.

Campbell, D. E., & Kelly, J. S. (1994). Trade-off theory. *The American Economic Review*, *84*(2), 422-426.

CDSC. (2024). *Listed companies at the Nairobi Securities Exchange: Annual report 2025*. Central Depository and Settlement Corporation.

Chen, J., Ding, Z., & Xu, Y. (2019). Intellectual capital and corporate financial performance: The moderating role of corporate governance in China. *Asia-Pacific Journal of Accounting & Economics, 26*(3), 397-414.

Chen, X., Liu, Y., & Zhang, L. (2018). Equity financing and firm performance: Evidence from China. *Journal of Corporate Finance*, 48(2), 1-15.

Chepkwony, P. (2018). *Effect of capital structure on financial performance of commercial and services firms listed at the Nairobi Securities Exchange* (Master's thesis, University of Nairobi). University of Nairobi Repository.

Cindiyasari, S. A., Junarsin, E., & Septiani, E. (2022). Does Intellectual Capital Affect Financial Performance? An Empirical Evidence from Financial Companies in Indonesia.

Cohen, J. (2023). *Statistical power analysis for the behavioral sciences* (3rd ed.). Routledge.

Corvino, A., Doni, F., & Bianchi Martini, S. (2020). Corporate governance, integrated reporting and environmental disclosure: Evidence from the South African context. *Sustainability*, *12*(12), 4820.

Doan, T. (2020). Financing decision and firm performance: Evidence from an emerging country. *Management Science Letters*, *10*(4), 849-854.

Doody, O., & Doody, C. M. (2015). Conducting a pilot study: Case study of a novice researcher. *British journal of nursing*, *24*(21), 1074-1078.

Doorasamy, M. (2021). Capital structure, firm value and managerial ownership: evidence from East African countries. *Investment management and financial innovations*, *18*(1), 346-356.

Ekele, M. (2024). Firm size as a moderator in the relationship between capital structure and financial performance: Evidence from Nigerian financial services companies. *Journal of Finance and Accounting Research, 18*(1), 92–110.

Essel, R. E. (2023). The Effect of Capital Structure on Corporate Performance: Panel Empirical Evidence of an Emerging Capital Market. *Journal of African Business*, 1(4)-40-56.

Fatihudin, D. (2018). How measuring financial performance. *International Journal of Civil Engineering and Technology (IJCIET)*, *9*(6), 553-557.

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

Frank, M. Z., & Goyal, V. K. (2009). Capital structure decisions: Which factors are reliably important? *Financial Management, 38*(1), 1–37.

Hang, Y., & Zhu, J. (2021). Financing decisions under financial turbulence: Evidence from pecking order theory. *International Journal of Corporate Finance, 27*(3), 145–162.

Hapsoro, D., & Falih, Z. N. (2020). The effect of firm size, profitability, and liquidity on the firm value moderated by carbon emission disclosure. *Journal of Accounting and Investment*, *21*(2), 240-257.

Hussein, A. (2020). The influence of capital structure on company performance: Evidence from Egypt. *Corporate Ownership & Control*, *18*(1), 8-21.

Iwasaki, I., Ma, X., & Mizobata, S. (2022). Ownership structure and firm performance in emerging markets: A comparative meta-analysis of East European EU member states, Russia and China. *Economic Systems*, *46*(2), 100945.

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.

Jibran, S., Ahmed, T., & Rauf, S. (2021). Impact of debt financing on financial performance: Evidence from Pakistan. *Asian Journal of Finance & Accounting, 13*(2), 122–137.

Johnson, A., Smith, B., & Smith, C. (2022). The Role of Retained Earnings in Financial Resilience: Evidence from the United States Market. *Journal of Financial Management*, 25(3), 45-63.

Kamau, P., & Mwangi, J. (2019). The impact of equity financing on financial performance: Evidence from Kenya. *African Journal of Economic Review*, 7(2), 112-126.

Kedzior, M., Grabinska, B., Grabinski, K., & Kedzior, D. (2020). Capital structure choices in technology firms: Empirical results from Polish listed companies. *Journal of Risk and Financial management*, *13*(9), 221-234.

Kerongo, M. M. (2022). *Capital Structure, Firm Size, Liquidity and Financial Performance of Non-financial Firms Listed at the Nairobi Securities Exchange* (Doctoral dissertation, University of Nairobi).

Kerosi, D. K. (2018). *Financial performance analysis of firms: Profitability and liquidity as key metrics* (Master's thesis, Kenyatta University). Kenyatta University Repository.

Khan, M. I., Naseem, M., Khalil, M. S. U. D., Yar, A., Khan, M. R., & Orakzai, M. H. (2024). Correlation between Duration of Diabetes and Severity of Coronary Artery Disease in Patients Undergoing Coronary Angiography at a Tertiary Care Hospital. Pakistan Heart Journal, 57(4), 329-336.

Khan, R. (2024). Correlation analysis and its application in finance research. *International Journal of Statistics and Economics, 19*(1), 54–69.

Kigen, W. K. (2022). *Capital structure, ownership identity and financial performance of commercial banks listed at the Nairobi Securities Exchange in Kenya* (Doctoral dissertation, Moi University).

Kirmi, L. N. (2017). *Determinants of capital structure decisions among Kenyan firms* (Master's thesis, University of Nairobi). University of Nairobi Repository.

Kumar, R., Singh, P., & Patel, A. (2019). Firm size and its effect on corporate value: Evidence from emerging markets. *Journal of Business and Economic Research, 14*(3), 245–260.

Lakens, D. (2017). Equivalence tests: A practical primer for t tests, correlations, and meta-analyses. *Social psychological and personality science*, *8*(4), 355-362.

Lerner, J., & Leamon, A. (2023). *Venture capital, private equity, and the financing of entrepreneurship*. John Wiley & Sons.

Li, X., Zhao, Y., & Chen, L. (2022). Measuring firm size: Return on total assets, sales turnover and number of employees as proxies. *International Journal of Corporate Finance, 33*(2), 178–195.

Lindset, S., Nygård, G., & Persson, S. A. (2024). Trade-Off Theory for Dual Holders. *Journal of Money, Credit and Banking*.23 (3), 211-219.

Liu, G., Zhang, X., Zhang, W., & Wang, D. (2019). The impact of government subsidies on the capacity utilization of zombie firms. *Economic Modelling*, *83(5)*, 51-64.

Mansour, M., Al Amosh, H., Alodat, A. Y., Khatib, S. F., & Saleh, M. W. (2022). The relationship between corporate governance quality and firm performance: The moderating role of capital structure. *Sustainability*, *14*(17), 10525.

Mashiri, E., & Sebele, P. (2014). Capital structure and firm performance: Evidence from Zimbabwean listed firms. *African Journal of Economic and Management Studies, 5*(3), 267–283.

Mauwa, J., Namusonge, G. S., & Onyango, S. (2016). Effect of capital structure on financial performance of firms listed on the Rwanda Stock Exchange. *European Journal of Business, Economics and Accountancy*, *4*(4), 1-11.

Memba, F. S., & Nyanumba, T. (2023). Leverage and firm performance in Tanzanian non-financial firms: Balancing growth and financial sustainability. *Journal of African Corporate Finance, 11*(1), 50–67.

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.

Mitnick, B. M. (2015). Agency theory. *Wiley encyclopedia of management*, 1(7)-6-27.

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.

Moise, P. (2022). Understanding high correlations in applied social science research. *Journal of Quantitative Social Research, 15*(3), 211–229.

Molnar, S., Assaf, J., Sirohey, A., & Adhikari, S. R. (2020). Overview of local site effects and seismic microzonation mapping in Metropolitan Vancouver, British Columbia, Canada. *Engineering geology*, *270(3)*, 105-568.

Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative approaches*. African Centre for Technology Studies.

Muiruri, K. J. (2020). *Effect of Debt Financing on Financial Performance of Firms Listed at the Nairobi Securities Exchange* (Doctoral dissertation, University of Nairobi).

Mujwahuzi, G. V., & Mbogo, C. J. (2020). Effects of Capital Structure on Business Profitability of Processing Enterprises Listed on the Dar es Salaam Stock Exchange, Tanzania. *Journal of Finance and Accounting*, *8*(4), 165-217.

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.

Mutuku, J. K. (2021). *Effect of Leverage on Financial Performance of Investment Firms Listed at the Nairobi Securities Exchange* (Doctoral dissertation, University of Nairobi).

Mwangi, E. (2021). *Effect of Capital Structure on the Financial Performance of Small and Medium Enterprises in the ICT Sector, Kenya A Case of Selected SMEs in Nairobi County, Kenya* (Doctoral dissertation, Daystar University, School of Business and Economics).

Mwangi, P., & Murigi, J. (2018). The Utilization of Retained Earnings in Financing Strategic Investments: Evidence from Kenyan Firms. *East African Journal of Business Management*, 11(1), 112-127.

Mwebia, R. K. (2017). *Effect of selected firm characteristics on financial performance of firms listed in the Nairobi Securities Exchange* (Doctoral dissertation, University of Nairobi).

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.

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.

Ngacho, C., Wafula, M., & Oyugi, J. (2021). Agency costs, capital structure, and firm performance: Evidence from Kenyan firms. *Journal of Business and Finance in Emerging Markets, 9*(2), 134–150.

Ngure, E. (2020). *Relationship between Capital Structure and Performance of Listed Firms in Nairobi Securities Exchange* (Doctoral dissertation, KeMU).

Njenga, J. W., Kariuki, P. M., & Wanjohi, P. (2023). Influence of Top Management Support on Performance of State Corporations in Kenya. *Journal of Strategic Management*, *7*(1), 89-102.

NSE, (2021). Regulatory Framework. Retrieved August 1st , 2011, from Nairobi Stock Exchange: http://www.nse.co.ke/regulatory-framework/category/42-nairobi-stock-exchangense.html of linkage, Revue International PME, vol. 8, n°3-4, pp. 67-90.

Nyaga, F. (2022). *Relationship between Financial Structure and the Financial Performance of Manufacturing and Allied Firms Listed at the Nairobi Securities* (Doctoral dissertation, University of Nairobi).

Nzau, S. K. (2021). *Effect of Ownership Structures on Financial Performance of Listed Manufacturing Firms in Kenya* (Doctoral dissertation, KCA University).

Oanda, E. (2021). *Effect of Capital Structure on Financial Performance of Non-financial Firms Listed at the Nairobi Securities Exchange* (Doctoral dissertation, University of Nairobi).

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

Olumbe, C. O. (2022). *Corporate Governance, Social Investment, Information Technology Investment and Financial Performance of Companies Listed at the Nairobi Securities Exchange* (Doctoral dissertation, University of Nairobi).

Omukaga, A. (2017). The influence of bankruptcy costs and debt levels on firm performance: Evidence from publicly listed firms in East Africa. *East African Journal of Accounting and Finance, 5*(4), 210–232.

Ong'uti, S. O., & Odhiambo, N. M. (2016). Equity financing and financial performance of firms listed on the Nairobi Securities Exchange, Kenya. *International Journal of Economics, Commerce and Management*, 4(6), 166-180.

Osei, B., *et al*. (2019). Retained Earnings and Innovation in Ghanaian Enterprises. *Journal of Business and Economic Development*, 14(3), 220-235.

Park, G. (2022). Resist Malignant Normality. In *Progressive Leadership: Challenging the Theory of the Firm in the 21st Century* (pp. 19-40). Emerald Publishing Limited.

Patrick, R. H. (2021). Durbin–wu–hausman specification tests. In *Handbook of financial econometrics, mathematics, statistics, and machine learning* (pp. 1075-1108).

Putri, I. G. A. P. T., & Rahyuda, H. (2020). Effect of capital structure and sales growth on firm value with profitability as mediation. *International Research Journal of Management, IT and Social Sciences*, *7*(1), 145-155.

Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The Journal of Finance, 50*(5), 1421–1460.

Rehan, R., Hadi, A. R. A., Hussain, H. I., & Hye, Q. M. A. (2023). Capital structure determinants across sectors: Comparison of observed evidences from the use of time series and panel data estimators. *Heliyon*, *9*(9).23-57.

Reschiwati, R., Syahdina, A., & Handayani, S. (2020). Effect of liquidity, profitability, and size of companies on firm value. *Utopia y Praxis Latinoamericana*, *25*(6), 325-332.

Robert, K., Richard, K., & PK, R. (2020). The effect of capital structure on financial performance of firms in Kenya: Evidence from firms listed At the Nairobi Securities Exchange. *Scientific Research Journal*, *8*(01), 1-7.

Roebianto, A. D. I. Y. O., Savitri, S. I., Aulia, I. R. F. A. N., Suciyana, A. R. I. E., & Mubarokah, L. (2023). Content validity: Definition and procedure of content validation in psychological research. *Testing, Psychometrics, Methodology in Applied Psychology (TPM)*, *30*(1), 5-18.

Safitri, F. N. (2024). Financial Performance Analysis Before and During the Covid-19 pandemic (Case Study on Telecommunication Companies 2017-2022). *Jurnal Rekognisi Akuntansi*, *8*(1), 1-9.

Samuel, K. W., Ndede, F. W., & Atheru, M. G. K. (2022). Financial structure and financial growth of financial firms listed at nairobi securities exchange, kenya. *Journal of Finance and Accounting*, *6*(1), 28-45.

Shapiro, S. P. (2005). Agency Theory. *Annu. Rev. Sociol.*, *31*, 263-284.

Shleifer, A., & Vishny, R. W. (2017). A survey of corporate governance. *Journal of Finance, 52*(2), 737-783.

Shrestha, N. (2020). Detecting multicollinearity in regression analysis. *American journal of applied mathematics and statistics*, *8*(2), 39-42.

Smith, X., & Smith, Y. (2019). Retained Earnings and Innovation in Multinational Corporations: A Comparative Study. *Global Business Review*, 22(1), 56-72.

Sogomi, F. C., Patrick, M. K., & Kamau, C. G. (2024). Exploring the Relationship between Working Capital Management, Liquidity, and Financial Performance within the Context of Kenyan SME's. *African Journal of Commercial Studies*, *4*(2), 113-120.

Storey, D. (2017). Six steps to heaven: Evaluating the impact of public policies to support small businesses in developed economies. *The Blackwell handbook of entrepreneurship*, 23(2), 176-193.

Takahashi, H., & Yamada, K. (2021). When the Japanese stock market meets COVID-19: Impact of ownership, China and US exposure, and ESG channels. *International Review of Financial Analysis*, *74*, 101670.

Tandon, S., Abdul-Rahman, A., & Borgo, R. (2024, July). Effects of Spatial Abilities and Domain on Estimation of Pearson's Correlation Coefficient. In *2024 28th International Conference Information Visualisation (IV)* (pp. 1-8). IEEE.

Tanko, U. M., Siyanbola, A. A., Bako, P. M., & Dotun, O. V. (2021). Capital structure and firm financial performance: Moderating effect of board financial literacy in Nigerian listed non-financial companies. *Journal of Accounting Research, Organization and Economics*, *4*(1), 48-66.

Thode, H. C. (2016). *Testing for normality*. CRC Press.

Tindi, J. (2022). Capital structure and managerial discretion: Evidence from East African corporations. *East African Journal of Business and Finance, 4*(2), 201–219.

Titman, S., & Wessels, R. (1988). The determinants of capital structure choice. *The Journal of Finance, 43*(1), 1–19.

Tretiakova, V. V., Shalneva, M. S., & Lvov, A. S. (2021). The relationship between capital structure and financial performance of the company. In *SHS Web of Conferences* (Vol. 91, p. 01002). EDP Sciences.

Turner, D. P. (2020). Sampling Methods in Research Design. *Headache: The Journal of Head & Face Pain*, *60*(1), 123-147.

Ullah, S., Akhtar, P., & Zaefarian, G. (2019). Dealing with endogeneity bias: The generalized method of moments (GMM) for panel data. *Industrial Marketing Management, 71*, 69–78.

Wairimu, G. (2015). *The effect of corporate diversification on capital structure of firms listed in the Nairobi Securities Exchange* (Doctoral dissertation, University of Nairobi).

Wang, Y., Li, Z., & Liu, H. (2020). Defining and applying target populations in business research. *Journal of Business Research Methods, 12*(2), 88–103.

Yasar, B. (2021). The new investment landscape: Equity crowdfunding. *Central Bank Review*, *21*(1), 1-16.

Yator, R., & Gitagia, R. (2023). Capital structure and bankruptcy risk: An analysis of Modigliani and Miller theory in practice. *East African Journal of Finance, 2*(2), 55–68.

Yu, P., Guo, S., & Ding, H. (2016). Testing normality in regression residuals: Skewness, kurtosis, and Shapiro–Wilk approach. *Journal of Applied Statistics, 43*(8), 1529–1543.

Yusuf, S. (2022). *The Effect of Capital Structure Gearing Levels on Financial Performance of Public and Private Sector Firms in Kenya's Coastal Counties* (Doctoral dissertation, Pwani University).

Zadeh, A. H., & Eskandari, M. (2018). Economies of scale and firm value: The discount effect in purchasing power. *Journal of Economic Studies, 45*(6), 1125–1142.

Zheng, F., Zhao, Z., Sun, Y., & Khan, Y. A. (2023). Financial performance of China's listed firms in presence of coronavirus: Evidence from corporate culture and corporate social responsibility. *Current Psychology*, *42*(11), 8897-8918.

APPENDICES

APPENDIX I: LIST OF THE COMMERCIAL AND SERVICES FIRMS LISTED IN THE NSE

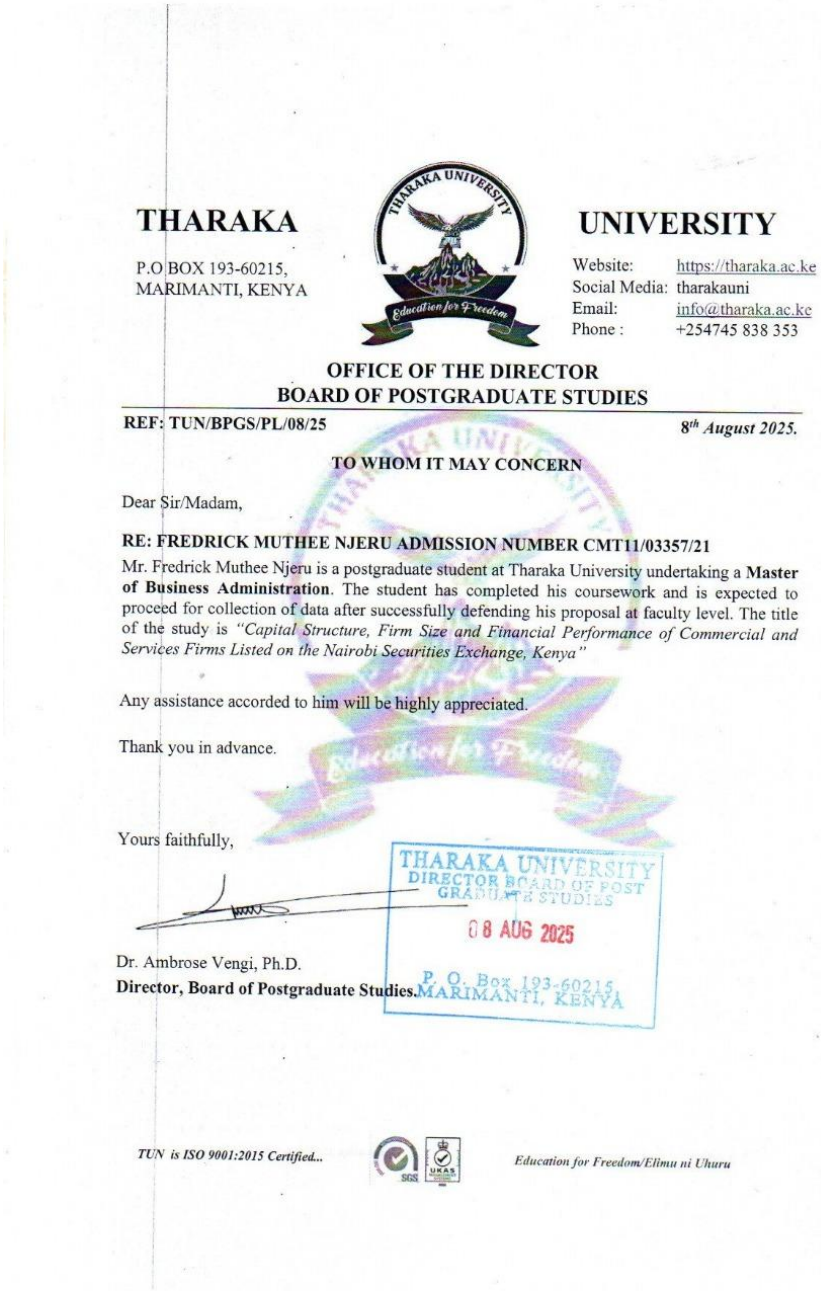
1. Express Kenya Ltd. (XPRS)
2. Sameer Africa Ltd. (SMER)
3. Kenya Airways Ltd. (KQ)
4. Nation Media Group Ltd. (NMG)
5. Standard Group Ltd. (SGL)
6. TPS Eastern Africa Ltd. (Serena Hotels).
7. Scangroup Ltd. (SCAN):
8. Uchumi Supermarkets Ltd. (UCHM)
9. Longhorn Publishers Ltd. (LKL)
10. Deacons (East Africa) Plc (DCON)
11. Eveready East Africa Ltd.
12. Homeboyz Entertainment PLC
13. Nairobi Business Ventures Ltd.

Source: Central Depository and Settlement Corporation Ltd © 2025

APPENDIX II: DATA COLLECTION SHEET

Year		**Logs of total assets**	**Total equity**	**Total of long term debt**	**Total assets**	**Net Incomes**
2015						
2016						
2017						
2018						
2019						
2020						
2021						
2022						
2023						
2024						

APPENDIX III: INTRODUCTORY LETTER



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OFFICE OF THE DIRECTOR
BOARD OF POSTGRADUATE STUDIES

REF: TUN/BPGS/PL/08/25 *8th August 2025.*

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: FREDRICK MUTHEE NJERU ADMISSION NUMBER CMT11/03357/21

Mr. Fredrick Muthee Njeru is a postgraduate student at Tharaka University undertaking a **Master of Business Administration**. The student has completed his coursework and is expected to proceed for collection of data after successfully defending his proposal at faculty level. The title of the study is *"Capital Structure, Firm Size and Financial Performance of Commercial and Services Firms Listed on the Nairobi Securities Exchange, Kenya"*

Any assistance accorded to him will be highly appreciated.

Thank you in advance.

Yours faithfully,

THARAKA UNIVERSITY
DIRECTOR BOARD OF POST GRADUATE STUDIES
08 AUG 2025
P. O. Box 193-60215 MARIMANTI, KENYA

Dr. Ambrose Vengi, Ph.D.
Director, Board of Postgraduate Studies.

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APPENDIX IV: INSTITUTIONAL SCIENTIFIC AND ETHICS REVIEW COMMITTEE

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INSTITUTIONAL SCIENTIFIC AND ETHICS REVIEW COMMITTEE

8th August 2025.

REF: TUNISERC/NSEC/ M069

Dear, Fredrick Muthee Njeru

RE: Capital Structure, Firm Size and Financial Performance of Commercial and Services Firms Listed on the Nairobi Securities Exchange, Kenya.

This is to inform you that ***Tharaka University ISERC*** has reviewed and approved your above research proposal. Your application approval number is ***ISERC04023.*** The approval period is

8th August 2025– 8th August 2026.

This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments, MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by ***Tharaka University ISERC***.
iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to ***Tharaka University ISERC*** within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to ***Tharaka University ISERC*** within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to ***Tharaka University ISERC***.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://research-portal.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely,

THARAKA UNIVERSITY ETHICS COMMITTEE 08 AUG 2025 CHAIRPERSON P.O. BOX 193 - 60215, MARIMANTI

Dr. Fidelis Ngugi
Chair, ISERC Tharaka University

APPENDIX V: NACOSTI PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **774644**

Date of Issue: **27/August/2025**

RESEARCH LICENSE

This is to Certify that Mr.. FREDRICK MUTHEE NJERU of Tharaka University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: CAPITAL STRUCTURE, FIRM SIZE AND FINANCIAL PERFORMANCE OF COMMERCIAL AND SERVICES FIRMS LISTED ON THE NAIROBI SECURITIES EXCHANGE, KENYA for the period ending : 27/August/2026.

License No: **NACOSTI/P/25/4178776**

774644

Applicant Identification Number

Ag. Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code

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See overleaf for conditions