

**THE EFFECT OF COST OF CAPITAL ON THE PROFITABILITY OF
FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE**

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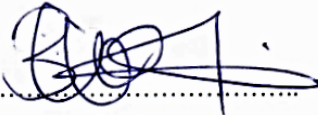
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DECLARATION

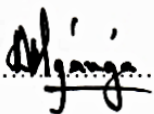
I declare that this research project is my original work and has not been presented in any other college or institution of higher learning for review or examination.

Signature  Date 27/11/2023

Bill Clinton Lusike Munyasi

D61/28266/2019

This project work has been submitted for examination with my approval as the Supervisor.

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DEDICATION

I dedicate this research work to my family and work colleagues for their endless support and encouragement throughout my pursuit of further studies.

ACKNOWLEDGMENT

I wish to thank the Almighty God for bestowing unto me good health, mental fortitude, strength and resources that have enabled me conclude this research project. Secondly, I am immensely grateful to my supervisor, Mr James Nganga, for his invaluable feedback and steady support throughout the execution of this project. I would also like to extend a great appreciation to the School of Business department for the provision of necessary guidance that enabled me to carry out this research seamlessly. Finally, I wish to acknowledge my study colleagues who were a source of inspiration and motivation with their shared experiences during the course of this journey.

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LIST OF ABBREVIATIONS

CAPM	Capital Asset Pricing Model
CMA	Capital Markets Authority
COC	Cost of Capital
NSE	Nairobi Securities Exchange
ROA	Return on Assets
ROE	Return on Equity
WACC	Weighted Average Cost of Capital

ABSTRACT

The execution of financial decisions in business is becoming intricate due to the rapidly changing business environment. Firms need to develop sustainable and immensely proficient financing structures in order to achieve its primary objective, which is profitability. In order to validate theoretical concepts such as how the cost of capital affects profitability, it is essential that empirical studies be conducted. The specific objectives of this study was to establish the effect of the cost of debt and the cost of equity on profitability of firms listed in the Nairobi Securities Exchange. A descriptive research approach was adopted to explain the relationship between the phenomena, while also controlling others factors such as leverage, firm size and liquidity, all of which influence profitability. The study population included 61 firms listed on the NSE, of which secondary data from 50 firms was collected. Descriptive and inferential statistics were used to analyze the predictability, variability and relationship between the study variables. The results generated showed that the regression model was significant in establishing the relationship between the independent variables and dependent variable. The research findings indicated that the cost of debt was statistically significant in affecting profitability due to existence of a strong negative correlation. In contrast, the cost of equity revealed a very weak negative correlation, and thus insignificant in predicting profitability. Among the control variables, leverage exhibited a strong negative correlation to profitability, making it statistically significant. Conversely, firm size and liquidity were discovered to be insignificant in predicting profitability. The study concluded that the overall cost of capital had a relative effect on profitability, with the cost of debt having a significant impact. The study recommended that regulatory measures be encouraged to enable responsible management of debt and its accompanying costs, while also placing importance on further research to determine pertinent factors that affect the relationship between equity costs and profitability.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The cost of capital has long been recognized as an instrumental constituent in business valuation, thus cementing its immense contribution to financial decision-making. When making these decisions, the management of a company determines the appropriate financing policy that ensures stakeholders' interests are taken care of, and that the company may keep surviving in a competitive business environment. In assessing the effectiveness of a company's ability to acquire financing, capital structure determinants such as profitability, cost of capital, investment opportunities, and the size of the firm and its assets are taken into consideration (Dabrowska, Sawicka, & Milewska, 2021). To be competitive, the management of a company must be fully committed to ensuring that the company's productivity increases continuously to improve its performance. Moreover, operating in an open and competitive environment also requires a suitable capital structure. Nonetheless, performance is closely associated with a myriad of factors, including the cost of capital, which affect its operations and investment decisions (Hussain, Herman, Ghani, & Razimi, 2019).

A company's ultimate objective to prioritize its shareholders' interests by maximizing their wealth and providing them with sustainable and satisfactory returns (Ramsay & Sandonato, 2018). In order to maximise wealth, funds must be raised through the issuance of shares or the receipt of funds that are utilised in such a way as to generate returns for the business that are equal to the returns anticipated by the shareholders. If the company does not profit at the projected pace, the stock's market value may decline, and the owners' wealth would be diminished. Similarly, raising cash through debt and preferred capital issues may lower the share price on the market (Awwal, 2013). The

determination of the level of debt and equity that the firm requires to maximize shareholders' wealth is what constitutes the capital structure decision. Mujahid & Akhtar (2014) posit that a financing decision has an influence on the debt-equity mix of a company whereby the shareholders' returns and risk are affected, consequently causing changes in the the firm's market value. Nevertheless, how to assess, analyze, and account for the ideal proportion of loan financing and equity financing has been a subject of worldwide discussion (Odongo, 2013). It is therefore a requirement that managers plan to achieve an optimum financial mix that drives efficiency and ensures corporate survival.

Wamugo (2017) highlights that when a company offers a return that exceeds its cost of capital, it creates value for its owners. According to Modigliani-Miller's Irrelevance Theory of Capital Structure, whether a firm has high financial leverage or little to no debt, the company's valuation is unaffected by its capital structure. This further implies that when determining the level of a firm's financial leverage, the cost of capital, which is a component of capital structure, is irrelevant. The importance of financial leverage to a company's ability to continue operating cannot be understated. Despite the advantages, leverage comes at a cost, the most significant of which are interest rates, collateral, and risk factors. These costs influence a company's ability to achieve profit, growth, and wealth-maximizing goals (Muchai, 2016). The Pecking Order theory by Myers (1984) contends that when making a financing decision, a company may first consider its retained earnings over debt, followed by debt over equity. A company may be inclined to use debt financing when its profitability or investment opportunities are unpredictable, and would only choose equity financing as the last resort. Moreover, the use of debt has tax shield benefits that enable firms to pay fewer taxes and thus increase profitability and firm value (Priska & Tri, 2012). On the subject of tax shield benefits,

researchers brought forth the Trade-off Theory, which emphasises how using debt financing exposes a company to agency costs and insolvency risk. Hence, firms must set a desired debt-to-value ratio and aim for it if they wish to achieve an optimal capital structure (Chen, 2010).

1.1.1 Cost of Capital

The cost of capital represents the overall required rate of return on a firm's aggregate of investments that shareholders or investors expect as compensation for their role in raising capital. As it contributes to evaluating the financial performance of a company as well as that of senior management, it is considered a crucial aspect in financial and investment decisions. In essence, a company may make an investment if it is predicted to have a rate of return equivalent to the cost of capital, demonstrating its significance in building a foundation for the distribution of resources (Kanini, 2014). Alhabeeb (2017) postulates that the conceptual setting of the cost of capital is guided by two main premises. The first one is that the cost of capital is what a company must earn on its investment in order to preserve a proper market value for its stock and secondly, it is the rate of interest that must assist investors to undertake new investment opportunities. The two fundamental elements of the capital structure of a firm are debt and equity. Each element of financing has a cost attached with it, which is stated as a discount rate based on the market value of particular capital components. The cost of debt, for instance, is the interest paid when a company issues debt. The cost of debt, as highlighted by Mayo (2012), is based on the current rate of interest rather than the rate at which the company issued the debt in the first place. Therefore, using the current interest rate to determine the firm's cost of capital is appropriate. The cost of equity, on the other hand, refers to the return that investors need so as to purchase firm stock. Although raising the cost of equity is expensive, takes time, and management loses

decision-making control, it has one significant benefit: no fixed upfront costs (Mayo, 2012). It is worth noting that the cost of equity has two main perspectives in respect of the company and the investors. The return, from the investors' point of view, should be met by the company in which they have invested, and conversely, the company must ensure that the cost does not lead to a decrease in the value of the investment (Muchai, 2016). Therefore, the cost of capital for a leveraged firm is calculated by adding the costs of debt and equity, factoring in their proportions, to give a result known as the WACC.

The cost of capital has been the subject of numerous studies and empirical research, showing its connection to the capital structure of a firm and its influence on investment choice. According to empirical study by Chen (2010), capital structure is mostly determined by the profitability and growth rate of a corporation. Profitable organisations utilise less debt to finance their operations, and the greater the growth rate of the firm, the more robust the capital structure. Awwal (2013) examined how capital structure assists in the creation of value in a firm and established that one of the elements that may be enhance firm growth is the cost of capital. In addition to showing a marginally positive correlation between investment decisions and cost of capital, a study by Kanini (2014) also suggested that using debt effectively was crucial for boosting business value. According to Wamugo (2017), a firm's asset and debt ratios have a significant positive association with its cost of capital, with ratio increases driving up the cost of capital.

1.1.2 Profitability of a Firm

Profitability is a valuable estimate of the financial performance and position of a company, which are based on factors and decisions undertaken by managers (Muchai, 2016). Different financial ratios, such as the ROA, assets turnover, and ROE, can be

applied in the analysis and interpretation of financial data with the aim of determining how profitable a company is. The ROA and ROE ratios, along with earnings and cash flows, are considered to be the most elementary accounting measures of performance. Wealth maximisation, profit maximisation, social responsibility, and business expansion are the primary goals of any firm. Profit maximization is regarded as the traditional one, as managers of a firm constantly develop strategies to increase revenues and minimize costs (Mujahid & Akhtar, 2014). Additionally, when evaluating the feasibility of a company's business model, profits are more significant. Hence, if a company is more profitable, it is considered to have an efficient business model which is adequate and sufficient in providing desirable returns to its shareholders, and comfortably deals with financial distress in periods of economic breakdowns (Khan, 2017).

Academic literature and research have shown that a conflict exists between profit and wealth maximization when the financial management goals of a firm are considered. Sultana (2015) concluded that profit maximization is an inappropriate goal as it only focuses on the short-term objectives of the firm due to its emphasis on earnings management rather than on the value that maximizes the shareholders' wealth. On the other hand, wealth maximization is subject to challenges brought about by the agency problem, where the wishes of firm owners and the decisions of managers contradict. Herman, et.al (2019) stated that despite the conflicting differences, profits are an element of wealth maximization, thus managers should concentrate on increasing earnings in order to ultimately increase shareholder wealth. In light of that, Dabrowska (2021) posits that all stakeholders of a firm mind about the firm's value as they are involved in its creation and consumption and that the value is influenced by profitability.

A firm's profitability may be determined by industry factors, macroeconomic factors and internal factors. For this study, the research briefly highlight only the internal factors that influence profitability, as external factors are considered to be more volatile. In the context of the specific firm financial factors, a study by Barbuta-Misu, Madaleno and Ilie (2019) established that productivity, financial leverage and liquidity positively influence firm performance. Lan & Cong (2020) established that firm size positively affects the return on assets and adversely affects the return on equity of firms listed on the Vietnamese Stock Exchange. The return on assets was also found to be strongly influenced by financial leverage and liquidity, despite the fact that enterprises with high debt levels had detrimental effect on shareholders' return on equity. A study of manufacturing firms in the NSE also revealed that firms should only utilize short-term debt to support their business operations (Muchai, 2016). The most dominant non-financial factor that affects profitability is managerial decisions as highlighted by Popa & Ciobanu (2014) in their study of SMEs in Europe. When managers decide to take risks on investment opportunities during times of economic instability, this had a temporary negative impact on the firm's profitability, but with no possible assurance of bouncing back in the long-run. Nonetheless, this research focuses on a financial factor, the cost of capital, by examining its effect on the profitability of companies listed on the NSE.

1.1.3 Cost of Capital and Profitability

Strategic benefits exist for a firm that is able to create reasonable trade-offs between its cost of capital and financial performance. Additionally, a firm's profitability is highly associated with interest payments and dividend payments, both of which are tied to the cost of debt and cost of equity respectively (Hussain, Herman, Ghani, & Razimi, 2019). When looking at existing theory on the importance of cost of capital in financial

management, its relationship to financial performance is key as it serves as a guideline in assessing financial options. The risk and return of a company are represented by its average cost of capital. A company having a higher cost of capital is more vulnerable to risk, which influences its profitability. The performance of a company is stated to be satisfactory if its actual profitability exceeds the expected and actual cost of capital, and vice versa. According to Ongere (2015), a firm's capital structure and cost of capital are related, with the latter having an effect on financial performance. The researcher posits that when managers fail to identify the correlation between the financing structure and the cost of financing, it is highly probable that they can take more debt to finance their operations and investments without generating much revenue. This implies that the profitability of the firm may be negatively affected by their decisions due to inadequate consideration of the tradeoff between the two factors.

According to a study done by Dabrowska, Sawicka, & Milewska (2021) on risk and cost of capital evaluation for energy firms in the European capital markets, the cost of capital is fundamental in determination of the volume of profits. The ROE, ROA, and the WACC are all positively correlated. This research implies that when the WACC of these firms increases, there is a high likelihood of increased return on investments, which signifies high profitability. On the contrary, a case study by Sharma (2012) on the profitability and cost of capital analysis of companies in the telecommunication sector indicates that a negative relationship exists. This is because the firms are expected to acquire financing at lower costs in order to remain profitable, thus, indicating that if the cost of capital is higher, the profits are consequently condensed.

As was already established, risk and a variation in the specific cost of capital are linked and affect how well a firm performs. Depending on the level of leverage, the cost of borrowing poses a greater risk to the company than the cost of equity does to the

investor. Moreover, the cost of capital may take the form of preferred share capital and retained earnings. Malekian (2012) discovered a positive link exist between the return on assets ratio and preference share costs when studying how financial performance is affected by the cost of preferred capital. This coincides with the fact that since preferential shareholders are prioritized first when it comes to dividend payments, they are continuously willing to offer more to a firm, thus driving up its performance. On the contrary, a similar study by Kagerhu (2013) noted that for a firm to be more accessible to less risky capital, in this case, preference shares, it may need to factor in more capital expenses. Consequently, more capital expenses negatively affect financial performance. This further contradicts the fact that only the fixed charges related to debt are deducted from profits while preferred dividends are not.

1.1.4 Nairobi Securities Exchange

The NSE is the market of choice for international and local shareholders seeking to develop their coverage of East Africa's capital markets. At a predetermined price, investors may exchange financial assets issued by publicly traded companies and the Kenyan government on the bourse. Without an on-site trading floor when it first started, the NSE conducted business over the phone and negotiated prices. The major services provided by the exchange are the trading and settlement of connected securities such as derivatives, bonds, and stocks. There are various divisions each representing a different industry in which the firms operate such as exchange traded funds (ETFs) and Real Estate Investment Trusts (REITs). The Capital Markets Authority (CMA) licenses and regulates the NSE. It is allowed to offer a platform for both the management of its member companies and the trading of licenced securities.

Currently, a total of 64 firms are listed on the NSE, categorized into 13 subsectors. These sectors include banking, agriculture, commercial and financial services, energy and petroleum, manufacturing, automobiles, insurance, investment, real estate investment trust, construction and related businesses, investment services, telecommunication and technology, and exchange traded funds. NSE is essential in the economy of Kenya as it assists in the measurement of the country's monetary performance through the illustration of the changes in share prices of the various listed companies, as well as monitoring against inflation and currency depreciation. For instance, a generally positive change in the overall prices indicates an improvement in economic stability and vice versa. Additionally, it promotes economic growth and development through the facilitation of divestment and reinvestment by both local and international investors.

This study aims to focus on the companies listed in the NSE as practical evidence of the cost of capital and profitability was reliably measured and analyzed. Due to their primary sources of funding, debt and equity make up the majority of these companies' capital structures. In essence, debt securities in the NSE are represented by government bonds, treasury bonds and corporate bonds while equity securities include ordinary shares and preference shares.

1.2 Research Problem

Cost of capital has become a significant element that is considered when planning to increase the size of a firm and the shareholders' value. Finance managers ought to make crucial decisions and actions to be taken with regard to the amount of debt necessary, the management of capital, the company's target profit and retained earnings, and the asset base. Identifying the appropriate level of capital is instrumental as it affects the overall value of a firm. The expectation of shareholders and other investors is that their

capital should be put to work to maximize profits and generate standard returns for them. When a company's profitability is believed to be diminishing, its value is also perceived to be declining, which suggests that the company has a high cost of capital (Hussain, Herman, Ghani, & Razimi, 2019).

Firms in the Nairobi Securities Exchange have registered varying levels of financial performance based on different internal factors and changing economic outlook in general. Several firms that have had positive financial performance have also taken more debt to finance their operations. In essence, more leverage has led to fewer financing costs due to the benefit of tax deductibility on the firms' returns. This further signifies that the availability of sufficient earnings has proven to be beneficial due to the qualification of tax refunds. On the contrary, some firms have also registered declining profitability, with a similar indication of high leverage in their financing structure. Therefore, their tax-deductibility of financing costs has been lost or postponed due to insufficient earnings thus signifying that the cost of debt has gone up consequently. When looking at the cost of equity, financial leverage poses a significant risk to the firms' shareholders as they may lose on return on assets, although they stand to recover a bit on their return on equity. Nonetheless, this signifies a high cost of equity to the firm.

Abeywardhana (2011) found out that short-term borrowing is costly for firms in the manufacturing sector and cost-effective for the service sector when examining SMEs in the UK. Moreover, the pecking order and trade-off hypotheses are supported by the fact that the cost of debt declines with firm size. Santosuosso (2014) examined unlisted firms in Italy to establish how the cost of debt and profitability were correlated and found that profitability decreases when the cost of debt increases. When investigating how capital structure affects listed companies' profitability in India, Singh & Bagga

(2019) found that raising stock lowers a company's cost of equity compared to increasing debt. In general, the study came to the conclusion that the capital structure of a company significantly influences profitability. The cost of equity capital is crucial in creating value for a firm and improve on financial performance, as concluded by Awwal (2013) when examining how capital structure is applied in creating value for enterprises in Nigeria.

Ongere (2015) elaborates that companies in the NSE have a lower cost of equity compared to debt due to the affordable nature of debt financing for operations. Gichuhi (2016) discovered that no correlation exists between capital structure and business size, thus decisions on financing structures are not important in dictating the profitability of listed companies. When exploring the causality between financial performance and the cost of capital of publicly traded manufacturing enterprises, Onkware (2022) concluded that the cost of debt had an upward trend while the cost of equity reduced as firms looked for more strategic ways to increase their asset base and profitability.

While there is a theoretical understanding of the link that exist between cost of capital and profitability, empirical studies are important to validate and quantify these relationships in real-world contexts. The empirical pieces of evidence noted present how capital structure and separate components of cost of capital relate to the size of a firm and profitability. While international studies have shed light on ways in which companies can use debt to boost their financial performance, a direct relationship on how the cost of capital influences profitability is not entirely conclusive. Moreover, local studies have largely focused on capital structure and its relationship to other firm factors such as firm size, firm value, and leverage. While the researchers have provided valuable insights into the aforementioned areas, this study seeks to bridge the gap

between theory and practice and advance the existing knowledge by establishing exactly how the overall cost of capital affects profitability in the context of the NSE.

1.3 Research Objective

The purpose of the study is to establish the effect of cost of capital on the profitability of firms listed on the Nairobi Securities Exchange. Specifically:

- i. To determine how the cost of debt affects the profitability of firms listed on the NSE.
- ii. To determine how the cost of equity affects the profitability of firms listed on the NSE.

1.4 Value of the Study

This study was essential to academics by adding value to existing research that has been undertaken on the financial and investment decisions of a firm. It expanded on the knowledge in the field of the cost of capital, which has been closely related to a firm's capital structure. By focusing on the Nairobi Securities Exchange, where earlier studies presented findings on the capital structure, its relationship to the company's value, the cost of capital, and the firm's growth, the research aims to close the academic gap on the impact that the weighted average cost of capital has on the bottom line of a company.

This study may be beneficial to business analysts and managers, who can utilize it in evaluating the association between the cost of debt and the cost of capital of a firm along with the determinants of profitability. This would then offer them with vital information to help them make better financial decisions and optimise their capital structures in order to boost their particular firms' the financial performance.

This study is valuable to investors and the general public by assisting them to understand better how the cost of capital affects the financial health of companies listed on the NSE, as well as promote transparency and accountability in the capital markets. By obtaining this information, these stakeholders gain more insights into how the capital markets impact the wider economy, and therefore they can make more informed investment decisions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines different views, theories and works from other researchers and authors which was applied in expounding more on the cost of capital and its association to how firms perform. Furthermore, the key variables of interest was illustrated and discussed in order to bring out a convincing relationship between them and profitability.

2.2 Theoretical Review

This section illustrates the concepts and theories that are associated with the cost of capital and profitability, which are the primary variables that the study focused on.

2.2.1 Pecking Order Theory

This theory was brought forth by Myers & Majluf (1984) who advanced that firms have a standard preference in the way they would finance their operations. Specifically, they prefer using internal financing as a first priority, where they tap into their retained earnings. Subsequently, if the funds are insufficient, they move to external financing where debt is given the first consideration, followed by equity from investors which is only obtained in extreme cases. The reason for this hierarchy of financing is that internal sources of finance are considered to be less costly compared to external sources. Moreover, obtaining external financing requires firms to disclose a great deal of information to the public, which may not always be a comfortable process.

The pecking order theory also suggests that information asymmetries play an influential role in the existence of this preference order of financing. When obtaining external financing, there is always a disparity in information possessed between the firm and

investors. For instance, managers and internal investors have information that the market doesn't possess, about how retained earnings may be distributed as returns. When more equity or debt is issued, costs associated with the information asymmetries increase, as firms are left with the option to issue their external financing at greater values than what is charged at the market (Chen, 2010).

Leverage and profitability are two vital elements that have an effect on a firm's capital structure selection. According to the pecking order theory, the two elements are negatively correlated, in that profitable firms prefer using their retained earnings to taking up debt when financing their operations and investment opportunities. Various studies by Fama & French (2002), Mazen (2012), Wanja (2017) among others have tested and confirmed this view as brought forth by the pecking order theory. Moreover, the cost of debt may have undesirable effects on the firm's value depending on the degree of leverage. In essence, a firm with low profitability may inadvertently take up more debt to finance its operations, and this may reduce its value in the long run. A high cost of debt may also bring about corporate distress and bankruptcy, which further validates the theory (Santosuosso, 2014).

2.2.2 Trade-Off Theory

Myers (1984) developed the trade-off theory which is based on the firm's ability to achieve a suitable capital structure by weighing both the benefits and drawbacks of the available financing options. According to this theory, companies finance their activities in part with stock and in part with debt. It recognizes both the advantages and disadvantages of using leverage. In essence, when debt grows, the marginal benefits obtained decrease, while the marginal cost of debt rises (Jahanzeb, Ur-Rehman, Bajuri, Karami, & Ahmad, 2014). A crucial advantage of employing financing with debt is the

tax shield, which lowers a company's taxable profit. On the contrary, too much debt incurs high interest expenses, bankruptcy costs, agency costs and transaction costs. Nonetheless, the key determinants of the trade-off theory are particularly the bankruptcy costs and the tax shield benefit, as they attract significant interest from finance managers in firms (Reindl, Stoughton, & Zechner, 2017).

The theory also asserts that in order to have the ideal financing structure, a company must concentrate on achieving the desired proportion of debt to equity. Higher proportions of debt compared to equity are more common in highly profitable companies, which leads to more tax benefits. (Muchai, 2016). This implies that an optimal structure may be achieved with 100% debt financing as the cost of debt is significantly lowered by the tax shield. However, this proposition is criticized by the Modigliani-Miller theorem where it was argued that high debt levels increase the probability of insolvency and that taxes are usually high when bankruptcy has low dead-weight costs. In reality, profitable firms usually have a low intake of debt and this further contradicts the relevance of the trade-off hypothesis. On the flipside, it also suggests that unprofitable firms avoid high costs of debt by using equity financing instead. It is therefore relatively easier for them to make modifications towards achieving a target debt-equity ratio as they have more incentive to do so than profitable firms (Dang, Kim, & Shin, 2012).

2.2.3 The Net Income Approach Theory

This theory was pioneered by Durand (1952) who proposed that any change in a firm's financial leverage may alter its weighted average cost of capital, which in turn may affect its value. For instance, as the firm's value rises along with the value of equity, increasing debt in the capital structure to finance investments results in a reduction in

the overall cost of capital. This theory relatively concurs with the trade-off theory where 100% debt financing is considered for the achievement of an optimal capital structure. Notably, the net income approach theory makes the assumption that because debt is cost-effective and corporate taxes are not incurred, investors' perceptions of risk do not change even as the firm drives up its degree of leverage. It also assumes that the cost of debt rarely goes above the cost of equity, thereby implying that investors may obtain increased returns as the firm increases debt financing, which concurrently increases the value of the firm.

The assumption that the risk perception of equity investors as highlighted by the net income theory is unrealistic as investors seek high-risk premiums when the firm takes up more debt financing (Jelic & Kakani, 2015). Therefore, this would affect the value of the firm as shareholders would demand more dividends due to increased risk. This further suggests that the cost of equity would rise, contradicting the assumption put out by the net income approach that the cost of capital wouldn't rise altogether. The central idea of this theory is that if a company has no debt financing, its cost of capital equal its cost of equity, resulting in higher capital costs and an unoptimized capital structure. In terms of profitability, the theory suggests that increasing debt financing would raise profitability due to the availability of tax shields, resulting in lower tax expenses.

2.3 Determinants of Firm Profitability

There is a myriad of factors that are said to affect the ability of a firm to make a profit and these may be classified according to the market that the firm serves, the industry in which it operates as well as internal factors specific to the firm (Fareed, Ali, Shahzad, Nazir, & Ullah, 2016). Leverage, firm size, and liquidity are three firm-specific profitability determinants that was the focus of this study.

2.3.1 Leverage

Firms normally borrow money from lenders to finance their operations and increase the volume of revenue, with the consequent objective of making profits (Gichuhi, 2016). There are two forms of leverage that are closely associated with the capital structure decisions. Firstly, operating leverage, which is concerned with how a firm utilizes its fixed costs to magnify the effect of changes in revenue in relation to profit before interest and tax. Secondly, financial leverage, which illustrates the relationship between the operating profit and profit distributable to shareholders (Pike, Neale, Linsley, & Akbar, 2018). Financial leverage is largely associated with how companies finance their capital structure and how it directly affects a firm's profitability overtime. Ahmad, Salman & Shamsi (2015) postulate that a company's net income decrease as its debt costs rise in proportion to its financial leverage.

Andersson and Minnema (2018) found that leverage and profitability are negatively correlated as profitable firms utilize less debt and more of their internal sources of financing. This backs the empirical research by Kisavi and Mukras (2015) who concluded that financial leverage is an instrumental negative predictor of a firm's financial performance, taking into consideration its return on assets. On the contrary, earlier studies by Robb et al (2009) and Ruland et al (2011) established a different relationship. External factors such as economic stability may also affect the causal link between the two factors. For instance, in an economic boom period, high financial leverage incidentally impacts profitability positively as the firm is able to pay high interest charges which attract tax benefits. Nonetheless, taking into consideration the propositions of the net income approach theory, high leverage increases firm value which is a result of high profitability (Gichuhi, 2016).

2.3.2 Firm Size

Despite being an important aspect of corporate finance, empirical literature has no standard measure or rationale to measure it, as it is linked to a variety of factors. Dang, Li, & Yang (2018) highlight that the size of a company can be evaluated based on several factors such as revenue, number of workers, the value of assets, enterprise value, or even profits. Majority of researchers dwell mainly on the correlation of size with other business and financial factors, citing that a specific parameter of measuring firm size has to be theoretically and empirically justified. Nonetheless, Sharma (2012) postulates that because firm size and profitability are so important to the framework of economic literature and corporate finance, it is crucial to observe their correlation.

Large firms are considered to be more profitable compared to smaller firms due to economies of scale, thereby implying that the two variables are correlated positively. The size of a firm determines profitability depending on its ability to diversify its operations. Large firms may have the economic muscle to undertake diversification strategies, which may contribute to increased profitability due to the acquisition of new markets. Moreover, diversification assists in lowering the risk of bankruptcy, which may not be the case with small firms (Lacobelli, 2017). The average operational costs of small firms are relatively higher compared to large firms due to some varying business aspects. For instance, large firms dealing in the provision of bulky goods and products are able to negotiate for discounts from their suppliers, which consequently leads to a reduction in their operational costs and thus influences their profits positively. The Resource-Based View theory in strategic management states that organizations with valuable resources which cannot be replicated easily in the market and always have an edge over their competitors. Larger organizations can access more capital and

resources compared to small firms, which therefore boosts their ability to realize greater profitability levels (Skuflic & Druzic, 2016).

2.3.3 Liquidity

The liquidity of a company is measured by its capacity to settle its financial commitments once they become due. Liquidity is a demonstration of how fast a firm can access cash whenever needs arise (Ombworo, 2014). The current ratio and quick ratio are considered to be the most common measures of a firm's liquidity, where the former indicates the connection short-term assets and liabilities have, and the latter illustrates the correlation between current assets and current liabilities. Ajanthan (2013) notes that when the liquidity of a firm is too high, it potentially affects its profitability as much of the cash may be tied up in current assets and thus the firm incurs an opportunity cost of obtaining high returns by investing with those assets. It is critical to remember that the greater a company's liquidity, the more likely it is to meet its commitments on time. However, if much of the cash is used in operations rather than the growth of the business, the overall profitability is negatively affected. Moreover, during tough economic times that affect the business environment, firms prefer to level up their cash reserves in order to deal with potential risks, and this may have an impact on their performance (Fareed, Ali, Shahzad, Nazir, & Ullah, 2016). On the contrary, Renato (2010) established that liquidity is positively correlated to profitability, though not very significant as other financial factors other than liquidity have an impact on how well a company performs.

2.4 Empirical Review

As far as international studies are concerned, Abeywardhana (2011) concentrated primarily on the influence of capital structure on performance of non-financial SMEs in the UK, with a particular emphasis on the cost of debt. In its model, the study

incorporated cross-sectional times data, a least squares dummy variable regression and a generic economic model to measure the various variables. The researcher concluded that short-term debt is more profitable in the service sector and more expensive in the manufacturing sector and that capital structure significantly influences profitability.

Santosuosso (2014) investigated the connection between corporate performance and cost of debt for unlisted enterprises in Italy. The study used descriptive statistics, where profitability was denoted by return on assets and the interest expense to debt ratio served as a gauge of the cost of debt. The study concluded that considering the indirect expenses related to corporate distress is relevant when analyzing a company's financing structure. Moreover, there was a negative link of correlation between cost of debt and firm profitability.

An empirical panel data analysis was carried out by Singh & Bagga (2019) to examine how capital structure affects the profitability of Indian listed companies. Descriptive and regression techniques were used for analysis of data collected between 2008 and 2017. The effect by total debts ratios and equity ratios was examined separately, and the researchers discovered that both debt and equity had positive effects on the firm's profitability, with the ratio of tax to operating profit significantly impacting the return on equity.

In local studies, Kanini (2014) investigated how corporate leverage and investment decisions were correlated by examining the impact of cost of capital on investment choices of non-financial enterprises in Kenya. The NSE was context of focus for the study, and the variables were analysed using multivariate regression and descriptive statistics. Leverage plays a big part in raising firm value, hence the study discovered that the cost of capital was linked positively to investment choices.

Another focus on the NSE was done by Ongere (2015) who studied the impact of the capital structure on the cost of capital of listed firms. The two variables were examined using regression analysis and it discovered a positive association between them. Specifically, the results indicated that there is a direct link between firm size and capital structure, with larger firms having a higher capital structure that significantly affects their cost of capital.

In order to determine the ideal balance of debt and equity, Gichuhi (2016) tried to identify how profitability was affected by capital structure of publicly listed Kenyan firms. The study used a hypothesis generating methodology and collected data from secondary sources between 2011 and 2015. It established that capital structure insignificantly affects firm profitability and that firms preferred debt to equity when financing their operations in order to reduce their operational costs. From the various empirical studies, the focus has been on how the cost of capital correlates to factors such as investment decisions and capital structure, as well as a review of the optimal mix with respect to firm size. Thus, this study identifies a gap in knowledge, which it aims to address by examining the impact of the costs of debt and equity on firm profitability.

2.5 Conceptual Framework

A conceptual framework is an organization of a study's key concepts with the aim of defining the focus and direction of the research. It puts together the ideas, concepts and findings of literature reviewed in the study (Shikalepo, 2023). The figure below is the conceptual framework depicting the independent and dependent variables, as well as control variables for the study.

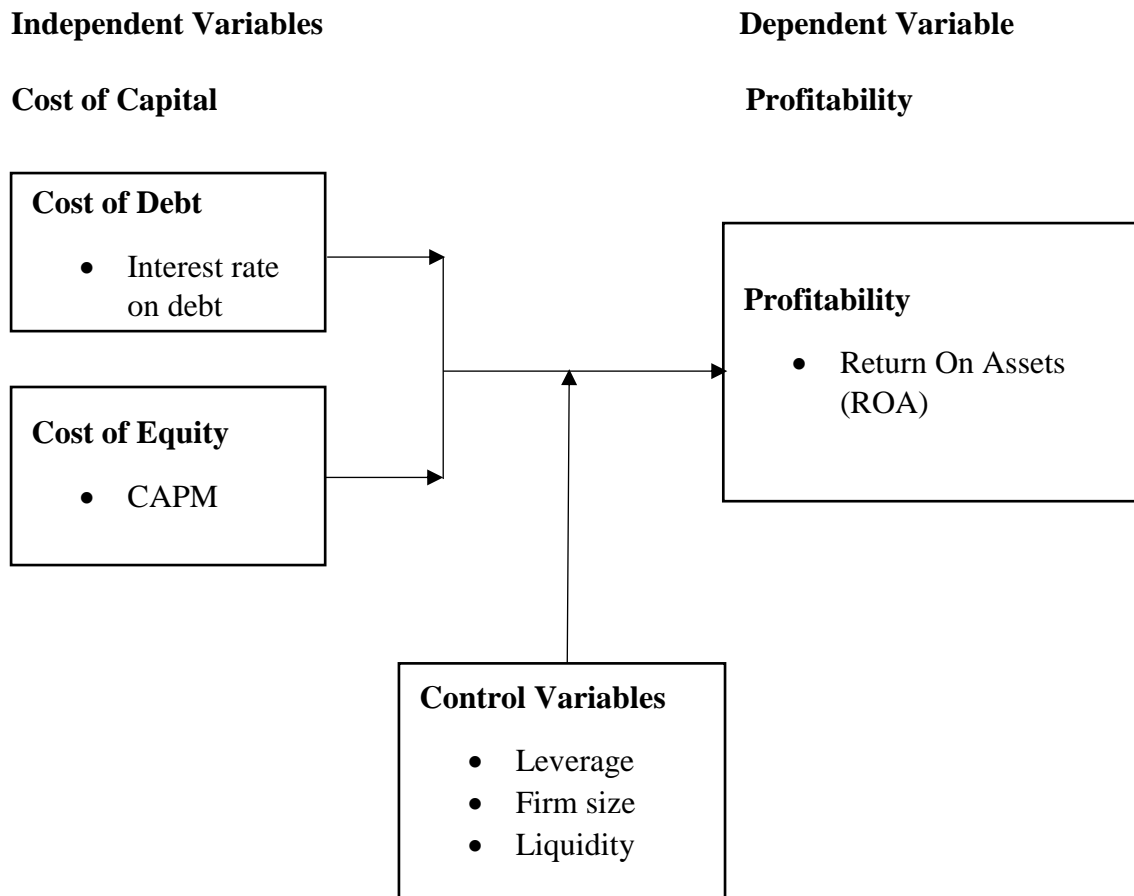


Figure 2.1: Conceptual Framework

2.6 Summary of the Chapter

The literature review section highlighted the concepts associated with the cost of capital and pertinent literature where three theories, namely the pecking order theory, trade-off theory and net income approach theory, have been deliberated. A discussion of the determinants of cost of capital has also been presented, where the study has focused mainly on leverage, firm size and liquidity. Through a review of empirical research from global and local studies, the chapter has also provided a basis upon which further research could be done. The section has also included the conceptual framework, which aid in meeting the objective of the study through operationalization of the variables.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the proposed research approach that was applied in achieving the study's objective. It highlights the research design, the study population, data gathering procedure to be employed, and data analysis methods that aid in making conclusions.

3.2 Research Design

This entail a systematic approach that merges the plan, strategies and methods that are used to collect and gather data with the purpose to accomplish the research objectives (Saunders, Lewis, & Thornhill, 2019). A descriptive research design was used to characterise every aspect of the phenomenon under investigation. Descriptive research helped to provide valuable answers that ascertained how the cost of capital affects the profitability of enterprises listed on the NSE. This design was instrumental in providing additional information and fill in the gaps in knowledge with regards to the current status of how cost of debt and cost of equity influence financial performance.

3.3 Population

This entail a group of objects, components, units or individuals with similar qualities that the researcher uses to draw inferences for a study. It is the entire group of constituents that aid in making conclusions in research (Saunders, Lewis, & Thornhill, 2019). 61 companies listed on the NSE as of 31st December 2019 made up the study's population (Appendix 1). Moreover, due to the standard reporting requirements of the listed firms, the published data is considered to be relatively free from

misrepresentation. This study aims to focus on the entire group of firms as its target population, thus no sampling was done for data collection.

3.4 Data Collection

In order to acquire information for analysis and draw meaningful conclusions, the study employed secondary data. Data was extracted from the listed firms' annual reports. This data was mainly accessed from the NSE databases, company websites and other relevant additional publications made by the Capital Markets Authority. The study aims to cover a period of five years, specifically 2015-2019.

3.5 Data Analysis

The dependent variable for the study is profitability, the independent variable was cost of capital, and the control variables was leverage, firm size and liquidity. The study employed descriptive statistics to analyze trends of the variables in the selected period by using the SPSS. A multiple regression model was applied to investigate how cost of debt and equity relates to profitability, taking into consideration other factors such as leverage, firm size and liquidity, which would also have a bearing on a firm's profitability. The model of regression is presented as follows:

$$Y = \beta_0 + \beta_1 \text{COD}_1 + \beta_2 \text{COE}_2 + \beta_3 \text{LEV}_3 + \beta_4 \text{FIR}_4 + \beta_5 \text{LIQ}_5 + e$$

Where

Y = Profitability, to be determined by ROA

COD₁ = Cost of debt, to be determined by the interest expense on debt outstanding

COE₂ = Cost of equity, to be determined using the CAPM technique (Risk free rate + (Beta * market risk premium))

LEV₃ = Leverage, to be determined by the debt ratio

FIR₄= Firm Size, to be determined by the value of total assets held by the firms

LIQ₅= Liquidity, to be determined by the current ratio

β_0 = constant term

$\beta_1, \beta_2, \beta_3, \beta_4$ = Slopes of the independent variables

e = Error Term

3.5.1 Tests of Significance

The study used the Analysis of Variance (ANOVA) to gauge the statistical significance of the regression model. T-statistic was also used to determine the statistical significance of the study variables.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

This chapter captures the findings of the effect of the cost of capital, majorly cost of debt and cost of equity, on the profitability of firms listed in the NSE. It captures the descriptive research techniques employed and detailed discussions and interpretations of the results.

4.2 Response Rate

The study sought to collect secondary data from 61 companies listed on the NSE as of 31st December 2019. Annual reports and share price data were obtained for 50 companies, which represents a response rate of 82%. This data was sufficient and adequate for analysis and making conclusions with regards to the variables of the study.

4.3 Descriptive Statistics

The descriptive statistics were essential in providing insights and an understanding of the characteristics of the data collected. Table 4.1 below provides an overview of the central tendency, variability and range of values for each of the six variables in the dataset.

Table 4.1: Descriptive Analysis

Variable	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
Cost of Debt	50	0.0000	0.3852	0.1115	0.0937
Cost of Equity	50	0.0016	0.3524	0.0801	0.0746
Leverage	50	0.0000	0.7724	0.1649	0.1842
Firm Size	50	101.4116	2264315.6000	145030.4214	342938.4396
Liquidity	50	0.3107	9.1000	1.9214	1.6471
Profitability	50	-0.3954	0.2859	0.0205	0.1037
Valid N (list wise)	50				

Source: Researcher's Computations, 2023

Profitability attained a mean score of 0.0205 with minimum and maximum values of -0.3954 and 0.2859 respectively. This indicates that the listed firms recorded an average return on assets (ROA) of 2.05%, with an indication that some firms were not profitable during the study period due to the negative ROA. The minimum cost of debt is 0, indicating that there were firms with no interest payment obligations. In contrast the maximum cost of debt is 0.3852, suggesting that there were firms with very high costs of debt. The mean cost of debt is approximately 11.15% while the standard deviation is 0.0937, which explains the extent of the degree of variability of the cost of debt among the listed firms.

The cost of equity attained a mean score of 0.0801 with minimum and maximum values of 0.0016 and 0.3524, thus indicating a wide range of equity costs among the listed firms. 0 and 0.7724 are the minimum and maximum values of leverage respectively, with the former notably signifying presence of firms with no debt in their capital structure. The average level of leverage among the listed firms is 0.1649. With regards to size, the standard deviation of 342938.44 reflects a considerable variation in firm

sizes, with some much larger than others. Liquidity attained a mean of 1.9214, with a minimum value of 0.3107 and a maximum value of 9.1000. Remarkably, the maximum value shows that there are listed firms with very high ability to manage their short term obligations.

4.4 Inferential Statistics

The study examined the relationships and predictive capabilities within the dataset by using correlation analysis and regression analysis to gain a more comprehensive understanding of the underlying variables influencing profitability of the firms under investigation.

4.4.1 Correlation Analysis

The Pearson correlation coefficient was used to gauge the strength as well as direction of linear relationship between the variables in the study. It is denoted by r , and it ranges from +1 to -1. When the value is greater than 0, it is an indication that the variables are positively correlated. Conversely, a negative correlation exists between the variables if the value is less than 0. Nonetheless, a value of 0 signifies that no correlation exists between the two variables being examined. The results of the correlation analysis for the study are as shown in table 4.2.

Table 4.2: Correlations

		Profitability	Cost of Debt	Cost of Equity	Leverage	Firm Size	Liquidity
Pearson Correlation	Profitability	1.000	-0.572	-0.243	-0.607	0.087	0.166
	Cost of Debt	-0.572	1.000	0.045	0.673	0.010	-0.395
	Cost of Equity	-0.243	0.045	1.000	0.161	0.079	0.173
	Leverage	-0.607	0.673	0.161	1.000	0.006	-0.401
	Firm Size	0.087	0.010	0.079	0.006	1.000	-0.226
	Liquidity	0.166	-0.395	0.173	-0.401	-0.226	1.000
	N		50	50	50	50	50

Source: Researcher's Computations, 2023

From the results, profitability is negatively correlated to the cost of debt, cost of equity and leverage. It has a strong negative correlation to cost of debt and leverage as depicted by -0.572 and -0.607 scores respectively, whilst having a weak negative correlation to the cost of equity as shown by -0.243. Profitability is however positively correlated to firm size and liquidity as shown by 0.087 and 0.166 scores respectively.

The correlation between the cost of debt and the cost of equity attained a score of 0.045, signifying a very weak positive association. The cost of debt is also weakly correlated to firm size as shown by the score of 0.010. It however shows a strong positive correlation to leverage as indicated by the score of 0.673. Its correlation to liquidity is -0.395, showing a moderate negative correlation.

The cost of equity has a weak positive correlation to leverage, firm size and liquidity as depicted by 0.161, 0.079 and 0.173 correlation scores respectively. The correlation between leverage and firm size is 0.006, indicating a very weak positive association, while, the correlation between leverage and liquidity is -0.401 thus a strong negative association. Firm size and liquidity have a negative correlation of -0.226, which signifies that their association is moderately negative.

4.4.2 Regression Analysis

The sought to investigate how the cost of capital relates to profitability, taking into consideration factors such as leverage, firm size and liquidity. Regression analysis was used to model and predict the impact of the independent variables on the dependent variable and the results of the output comprise of the model summary, analysis of variance (ANOVA) and the regression coefficients.

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.678 ^a	0.460	0.399	0.08037

a. Predictors: (Constant), Liquidity, Cost of Equity, Firm Size, Cost of Debt, Leverage

Source: Research Findings, 2023

The model summary capture information on the quality and goodness of fit of the multiple regression model. The R-value of 0.678 shows that a positive correlation exists between the independent variables (cost of debt, cost of equity, leverage, firm size and liquidity) and the dependent variable (profitability). Notably, the R-squared value of 0.460 signifies that approximately 46% of the variation in profitability is explained by the independent variables in the model.

Table 4.4: Analysis of Variance (ANOVA)

Model		ANOVA^a				
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.242	5	0.048	7.504	.000 ^b
	Residual	0.284	44	0.006		
	Total	0.527	49			

a. Dependent Variable: Profitability

b. Predictors: (Constant), Liquidity, Cost of Equity, Firm Size, Cost of Debt, Leverage

Source: Research Findings, 2023

The ANOVA table assesses the overall significance of the regression model. The significance value, also known as the p-value, is used to gauge the statistical importance of the model in establishing a link between the independent and dependent variables of the study using a 5% significance level. In this case, the study results found the p-value to be 0.000, which is certainly less than 5%. This therefore means that the regression model is statistically significant and there is evidence that the independent variables collectively have a significant effect on the dependent variable.

Table 4.5: Regression Coefficients

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	0.12	0.03		4.02	0
Cost of Debt	-0.371	0.169	-0.336	-2.199	0.033
1 Cost of Equity	-0.223	0.164	-0.161	-1.363	0.18
Leverage	-0.217	0.089	-0.385	-2.444	0.019
Firm Size	0.000	0.000	0.089	0.769	0.446
Liquidity	-0.005	0.008	-0.073	-0.553	0.583

a. Dependent Variable: Profitability

Source: Research Findings, 2023.

The constant represents the intercept of the regression model, which is the expected value of profitability when all independent variables are zero. It has a significance level of 0.000, which indicates that it is statistically significant.

The cost of debt has an unstandardized coefficient of -0.371 and a standardized coefficient of -0.336. This shows that it has a negative impact on profitability, with the relationship being moderate. The t-statistic of -2.199 with a significance level of 0.033 indicates that the cost of debt is statistically significant in predicting profitability of firms listed in the NSE. The cost of equity has an unstandardized coefficient of -0.223

which shows that it has a negative effect on profitability. Its standardized coefficient of -0.161 indicates that it has a very small negative relationship with profitability. The t-statistic is -1.363 with a p value of 0.180, which is relatively high. This signifies that the cost of equity is not statistically significant in predicting profitability.

The unstandardized and standardized coefficients for leverage are -0.217 and -0.385 respectively, indicating it has a negative effect on profitability as well as exhibiting a moderate negative relationship. The t-statistic is -0.2444 with a p-value of 0.019, showing that leverage is statistically significant in predicting profitability. Firm size has an unstandardized coefficient that is extremely close to 0, while its standardized coefficient is 0.089 thus it exhibits a small positive relationship with profitability. Based on its p-value (0.446), it is not statistically significant in predicting profitability. Liquidity has a small negative relationship with profitability based on its beta of -0.073. However, it is also not statistically significant in predicting profitability due to its high p-value of 0.583.

Using the established results, the regression equation for the study is:

$$Y = 0.120 - 0.371\text{COD}_1 - 0.223\text{COE}_2 - 0.217\text{LEV}_3 + 0\text{FIR}_4 - 0.005\text{LIQ}_5 + e$$

4.5 Discussion of Findings

The first study objective was to establish the effect of the cost of debt on profitability of listed firms on the NSE. It was established that the cost of debt is significant in impacting the profitability of listed firms in the NSE. It has a negative correlation to profitability in that a decrease in the cost of debt increases profitability, and vice versa. This further implies that firms with higher profitability may be better positioned to negotiate for lower debt costs. This result agrees with Onkware (2022), who studied manufacturing firms in Kenya and found that the cost of debt is strongly related to

profitability of the firms. This outcome further aligns with Santosuosso (2014), who stated that a high cost of debt results to low financial performance and may lead to corporate distress. Similarly, Audax (2018) reported that short term debts may be coupled with low interest rates thus resulting in low cost of debts. Thus firms with high performance gains take short term debts as they are not costly.

The second study objective was to establish the effect of the cost of equity on profitability of NSE listed firms. The study established that the cost of equity has a marginal link to profitability and thus not statistically significant in predicting profitability levels. It was found that a weak negative correlation exists, which implies that a higher profitability is linked with slightly lower costs of equity. The existence of a negative correlation agrees with the findings of (Ismail & Obiedallah, 2022) who revealed that any change in the financial performance of a firm may affect its cost of equity capital. However, the study slightly contradicts the discoveries of Hussain et al (2021) who found that the negative correlation between the cost of equity and firm performance was strong. This was due to the inclusion of the narrative risk disclosure quality as a moderating variable, which strengthened the association as risk information influences investment decision making which consequently affects cost of equity directly or indirectly.

The study also incorporated three control variables, namely leverage, firm size and liquidity, in order to isolate the specific impact of the cost of capital components on profitability. The study results reveal that leverage is statistically significant in predicting profitability, as it has a strong negative correlation to profitability. In essence higher profitability is associated with lower debt financing as found by Andersson and Minnema (2018). On the contrary, a study by Mohamed (2017) found that financial leverage does not affect the return on assets of firms in the manufacturing sector in

Kenya. With regards to firm size, the study results indicate a small positive relationship to profitability, despite the relationship being insignificant. Nonetheless, the results confirm the resource based view theory that firms with more resources have the ability to generate more profits. Finally, with regards to liquidity, the study established that it has a weak positive correlation to profitability, signifying that firms with higher profitability tend to have better liquidity. This confirms the study by Renato (2010), who also established that liquidity is positively related to profitability insignificantly.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study sought to justify the link between the cost of capital and firm performance by examining how the major specific costs of capital components affect profitability. This chapter highlights a summary of the research findings, conclusions made from the results obtained, as well as provide recommendations as well as suggestions for further studies.

5.2 Summary of Findings

In order to achieve the study objectives, the research entailed the collection of secondary data from the firms listed in the NSE for the period between the years 2014-2019. Data was gathered from 50 companies, which translates to 82% of the total targeted population. Descriptive and inferential statistics were employed to analyze the variables and enable meaningful insights and interpretations of the findings. The cost of debt and cost of equity represented the independent variables, alongside leverage, firm size and liquidity as controlling variables. The profitability of firms was the dependent variable as measured by ROA.

Based on the results of descriptive analysis, the listed firms reported a ROA of 2.05%, which on average terms implies that the firms are not very profitable. The cost of debt stood at an average of 11.15% while the cost of equity reported was 8.01%. The mean leverage was 16.49%, revealing moderately low debt levels across the listed companies. The standard deviation of size revealed a variation of approximately 342,938.44, thus showing that some firms are substantially larger than others. Liquidity levels stood at a

mean of 1.9214 which shows ample ability of most firms to settle their obligations as they arise.

Based on the results from inferential analysis, the regression model used was statistically significant in establishing the relationship between the independent and dependent variables. Collectively, there was evidence that the independent variables recorded a significant effect on profitability. The cost of debt has a negative correlation with ROA, meaning a decrease in debt costs results in a higher level of profitability. According to previous research findings by Santosuosso (2014), Audax (2018) and Onkware (2022), firms with high profits can negotiate lower debt costs more effectively. On the other hand, the association between the cost of equity and ROA, was determined to be minor and statistically insignificant. The negative relationship suggests that increased profitability is correlated with lower equity costs. These findings partially concur with those of Ismail & Obiedallah (2022).

In addition to controlling for profitability, the leverage, firm size and liquidity also had varying effects on profitability. The negative correlation between leverage and ROA is consistent with findings by Andersson and Minnema (2018), which imply that a higher profitability correlates with a lower debt financing. The return on assets of a firm was positively correlated with firm size, which was in line with the resource-based model that related a firm's resources to overall performance. Additionally, liquidity also correlated positively with ROA, confirming the findings of Renato (2018) who postulated that a firm may have high cash levels due to its ability to utilize its assets to generate profit, even though other factors significantly influence this ability more than liquidity.

5.3 Conclusions

The overall cost of capital does affect profitability of firms listed on the Nairobi Securities Exchange. However, the impact is fairly diverse based on the research findings comprising the debt and equity components. The cost of debt has a significant effect on the return on assets due to their strong negative correlation. This emphasizes the applicability of financial theory in making financing decisions in the corporate world as well as the significance of managing debt to improve profitability. In contrast, the cost of equity has a marginal effect on return on assets due to their statistically insignificant negative correlation. This is attributed to other factors such as risk disclosure by company management that may influence the cost of equity thereby affecting its predictability on profitability. Nonetheless, the insignificant effect implies that firms in the NSE may not have to heavily focus on the cost of equity in managing profit. Important consideration should be given to the quality of risk disclosure to shareholders and potential investors, as it affects their investment decisions with regard to expected returns.

The control variables assisted in providing meaningful implications for the study. First, leverage showed a large negative association, consistent with other studies suggesting that reduced debt financing is linked to greater profitability. This can be concluded that firms in the NSE with better management of debt levels registered better financial performance compared to those with extremely high debt levels. Second, there was a slightly positive connection between business size and profitability, corroborating the notion that larger companies often turn a higher profit. This implies that larger firms in the NSE undertook growth strategies to increase their asset base and in the process, they consequently increased their ability to generate high profits over time. Thirdly, there was a little positive association between liquidity and profitability, supporting the idea

that companies with higher levels of liquidity are also more likely to be profitable. However, the marginal relationship shows that in as much as firms in the NSE may have worked towards having strong liquidity positions, this may not have necessarily resulted in increased profitability as other operational factors may have prompted the need for higher cash flows.

5.4 Recommendations

The study findings provide an emphasis on the management of cost of capital with the aim to improve profitability. It is vital for policy makers and industry practitioners to highlight the significance of cost of debt when making financing decisions. The research reveals that the cost of debt substantially impacts the profitability, thus firms in the NSE need to consider maintaining appropriate debt-equity ratios and employ effective debt management strategies in order to minimize financial risk.

Decision-makers and practitioners should also increase sensitization for the development of policies that support firm growth, especially with regards to the increase in asset base. Sustainable growth strategies may be developed to help in increasing profitability in the long run, whether directly or indirectly. It is also instrumental that liquidity and other operational factors be considered in unison in order to optimize cost efficiency and eventually boost financial performance. Even though strong liquidity positions are ideal and important, company management should ensure that a balance is struck between its current ratios and other organizational elements in operations.

5.5 Limitations of the Study

The study was able to establish how the cost of capital, taking into consideration the controlling variables, affects profitability of firms listed in the Nairobi Securities Exchange. However, there is an element of lack of causality as the findings are based on how the variables correlate with profitability, but not how a change in the variables directly causes changes in the others simultaneously. For instance, the study established a very small correlation between the cost of equity and profitability. This correlation does not definitively prove that the cost of equity directly predicts profitability as other confounding factors such as risk disclosure and market conditions may affect both.

Additionally, the study findings and conclusions are based on quantitative data collected between the period 2014 and 2019 and thus did not have capture evolving qualitative factors such as the effects of the global COVID-19 pandemic, which may have had an impact on the selected variables and their effects to profitability of NSE-listed firms.

5.6 Suggestions for Further Research

A research need to be undertaken to investigate in detail the factors that affect the relationship between the cost of equity and profitability of firms listed in the NSE. This provides better insights into how equity costs can be managed and also create a better understanding into the levels of risk disclosure that affect the perceptions of investors with regards to firm performance.

Further research should also be conducted to examine how refinancing activities affect a company's cost of debt, and consequently its profitability. Conclusions drawn from this research may provide valuable insights to practitioners and decision makers with regards to managing debt to improve its return on assets.

A similar research on the effect of cost of capital on profitability may also be conducted by including qualitative data that would factor in the impact of the COVID-19 pandemic on the cost of capital components. This would assist in understanding the uncommon external factors that come into play when making capital structure decisions with an aim to improve financial performance.

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APPENDICES

Appendix 1: List of Companies as Listed in the Nairobi Securities Exchange

- 1 Absa Bank Kenya PLC
- 2 Athi River Mining
- 3 B.O.C Kenya Ltd
- 4 Bamburi Cement Ltd
- 5 BK Group PLC
- 6 Britam Holdings Ltd
- 7 British American Tobacco Kenya Limited
- 8 Car and General (K) Ltd
- 9 Carbacid Investments Ltd
- 10 Centum Investment Co. Ltd
- 11 CIC Insurance Group Ltd
- 12 Crown Paints Kenya PLC
- 13 Deacons East Africa PLC
- 14 Diamond Trust Bank Kenya Ltd
- 15 Eaagads Ltd
- 16 East African Breweries Ltd
- 17 East African Cables Ltd
- 18 East African Portland Cement Ltd
- 19 Equity Group Holdings
- 20 Eveready East Africa Ltd
- 21 Express Ltd
- 22 Flame Tree Group
- 23 HF Group Ltd
- 24 Home Afrika Ltd
- 25 I&M Holdings Ltd
- 26 Jubilee Holdings Ltd
- 27 Kakuzi PLC
- 28 Kapchorua Tea Co Ltd
- 29 KCB Group Ltd
- 30 KenGen Ltd
- 31 Kenya Airways Ltd
- 32 Kenya Orchards Ltd
- 33 Kenya Power & Lighting Co. Ltd
- 34 Kenya Re-Insurance Corporation Ltd
- 35 Kurwitu Ventures
- 36 Liberty Kenya Holdings Ltd
- 37 Limuru Tea Co. Ltd
- 38 Longhorn Publishers Ltd
- 39 Mumias Sugar Co. Ltd
- 40 Nairobi Business Ventures Ltd
- 41 Nation Media Group
- 42 National Bank of Kenya Ltd

- 43 NCBA Group PLC
- 44 Olympia Capital Holdings Ltd
- 45 Rea Vipingo Plantations Ltd
- 46 Safaricom PLC
- 47 Sameer Africa PLC
- 48 Sanlaam Kenya PLC
- 49 Sasini Ltd
- 50 Scangroup LTD
- 51 Stanbic Holdings Plc
- 52 Standard Chartered Bank Ltd
- 53 Standard Group Ltd
- 54 The Co-operative Bank of Kenya Ltd
- 55 Total Kenya Ltd
- 56 TPS Eastern Africa (Serena) Ltd
- 57 Trans-Century Ltd
- 58 Uchumi Supermarket Ltd
- 59 Umeme Ltd
- 60 Unga Group Ltd
- 61 William Tea Kenya Ltd

Source: NSE 2019