THE IMPACT OF CAPITAL STRUCTURE ON FIRM PERFORMANCE: AN EMPIRICAL STUDY OF NON-FINANCIAL FIRMS LISTED IN THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

This research project is my original work and has not been presented for the award of degree in any other University.

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This research project has been submitted for examination with our approval as the university supervisors.

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ABBREVIATIONS

CMA: Capital Markets Authority

EPS: Earnings Per Share

LTD: Long-term debt ratio

M&M: Modigliani and Miller

NSE: Nairobi Securities Exchange

ROA: Return on Assets

ROE: Return on Equity

ROTC: Return on Total Capital

STD: Short-term debt ratio

ABSTRACT

If used properly, a company's capital structure may have a significant impact on its success. Corporations have no hard and fast rules to follow when deciding whether to issue debt, equity, or hybrid instruments. NSE-listed non-financial companies' capital structures include equity financing, debt financing, and internal financing. The purpose of this research was to evaluate whether or not the capital structure of non-financial firms that are listed on the NSE had an influence on the firm performance of such companies. This study was guided by trade off theory, capital structure irrelevance theory and pecking order theory. This study employed both a descriptive and a historical research design in analyzing how capital structure affects firm performance. The 46 non-financial enterprises listed on the NSE made up the sample population. From 2017 through 2021, the study collected information on these businesses to create a 230-observation panel dataset. The study adopted the use of secondary data. To model the association between the capital structure of a firm and its performance, this research used panel data estimation models to investigate the firm performance as measured by ROA across the panel of 46 companies quoted in the NSE from 2017 to 2021. The study employed E-Views statistical software for data analysis. Capital structure is shown to have an effect on the performance of non-financial enterprises listed on the Nairobi Securities Exchange (NSE), Kenya. Growth in the size of non-financial companies listed on NSE was confirmed to have a positive effect on such companies' financial performance. In addition, asset tangibility had a beneficial influence on the performance of non-financial enterprises listed on the NSE, suggesting that it strengthens the performance of such firms. Capital structure was shown to be positively associated with company performance for NSE-listed non-financial companies, and the research also found that firm size and liquidity acted as major control factors in this connection. The research concludes that the advantages of taking out loans to develop the business operations of non-financial enterprises listed at NSE, Kenya exceed the expenses, and so the management team of these organizations should feel comfortable taking out such loans.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The capital budgeting decision, the capital structure decision, and the dividend decision are the three main operational choices facing the finance manager in corporate finance. When a company is profitable, its management will adopt the dividend choice rather than the more generalized capital budgeting option. Management must decide how capital budgeting choices will be funded, making the capital financing decision the most important. Thus, management must make a difficult choice between loan capital and equity capital as the two primary sources of capital. Capital structure choices are still a mystery, according to Myers (2001). Still up in the air is the issue of whether or not any certain capital structure is best. There are crucial conditional theories, but no generally acknowledged benchmark for the optimal debt-equity ratio. Since the foundational work by Modigliani & Miller (1958) on capital structure irrelevance theory, there has been a tremendous amount of study on this topic. The key work by Modigliani and Miller (M & M) stated that the option between debt and equity sources of capital did not result in any opportunistic advantages on the value, cost, and capital availability of the business. Their hypothesis relied heavily on the idea of a utopian capital market, in which any changes to the financial system would quickly smooth out any discrepancies from the predicted equilibrium.

M & M theory however attracted proponents of relevance of capital structure theories. For instance, the tradeoff theory asserts that a firm’s financing choice between debt capital and equity capital is informed by the balance between the taxes advantages in

form interest tax shield benefits of using debt coupled with the probability of financial distress costs arising from the use of the same. This theory argues that capital structure decisions are relevant in influencing the value of a company. However, the pecking order approach prioritizes the use of available financial sources based on their relative cost. According to this theory, a company will use its retained profits before turning to more costly forms of funding like debt and then stock. According to the pecking order idea, a company's rising reliance on external finance is reflected in its increasing levels of financial leverage. But according to the agency cost hypothesis, a company's value will rise even if it faces financial difficulties since its operational cash flow will be far greater than its lucrative investment prospects.

Non-financial enterprises in the Nairobi Securities Exchange (NSE) do not operate in perfect and frictionless capital markets. They operate in an environment where there exist taxes, agency costs and information asymmetry. Despite this internal and external environment within which most firms under study operate in favoring the opponents of the Modigliani & Miller (1958) capital irrelevance theory, there has been mixed empirical findings in this area of research. As such, this has necessitated research revolving around this topic of contention to establish if indeed the form of financing adopted by a company will have an effect on its value proxied by financial performance.

1.1.1 Capital Structure

Hassan et al. (2014) propose the definition of capital structure as the mix of long- and short-term debt, ordinary equity, preferred stock, and retained profits used to support a company's operations and development. Decisions about a company's capital structure are crucial because they affect the risk and return profile of the business. The high costs of

capital are mostly responsible for the low business value that results from a poor financing choice. Capital structure choices that are both efficient and effective, on the other hand, result in a lower cost of capital and a higher value for the company. Gitman et al. (2015) also described capital structure as the financing structure of a business, which includes long-term debt, preferred stock, and net worth. Correspondingly, debt, ordinary stock, and preferred equity are all components of the long-term capital mix described by Van Horne and Wachowicz (1995).

However, according to Myers (2001), a company's capital structure is its choice of debt and equity financing to support actual investments. Therefore, the ratio of debt to equity in funding a company's assets is shown via the capital structure. A common thread running through all of these definitions of capital structure is an emphasis on the debt-to-equity ratio that companies believe will allow them to achieve their value maximization objectives.

1.1.2 Firm Performance

Firm performance is a dynamic and critical concept used to express the attainment of a firm task efficiently and effectively. Selvam et al (2016) developed a comprehensive measurement model of indicators of firm performance which were defined and measured by Carroll (2004) in diverse facets of profitability, growth, market value, economic value added and customer satisfaction. The most widely accepted and traditional tool for measuring firm performance is in terms of financial performance Delen et al (2013) as investors, decision makers, creditors and a majority of other stakeholders consider firm performance to be made in reference to a firm’s financial performance. Consequently,

throughout out this study, firm performance is used synonymously with firm financial performance.

Financial performance refers to how effectually and efficiently a firm is in using its core business assets and in generating revenue. Berger and Di Patti (2006) asserts that firm performance measures the general financial wellbeing of the firm within a stipulated period of time. It gives a snapshot of a company's economic health and shows how its management is performing on their work monetary terms. How well a company performs financially may be used as a yardstick to measure how well its financial goals are being met. It is determined using financial ratios that originate in the income statement and balance sheet of the company.

1.1.3 Capital Structure and Firm Performance

Because management finance is based on the desire to maximize shareholders' wealth, understanding the sufficiency of capital structure and its impact on a company's performance is essential. However, theoretical and empirical data provide contradictory outcomes, making it unclear what role finance structure really has in determining corporate success. Therefore, there are several opinions on the best method of funding.

M & M (1958) wrote the foundational article on capital structure irrelevance, which states that under ideal capital market circumstances, a company's value is independent of its financing structure. Taking into account corporation taxes, Modigliani and Miller (1963) expanded on the effects of the debt tax shield while still holding to the M&M (1958) assumptions of ideal capital markets. They admitted that using debt to fund operations decreases the amount of tax a company pays. Therefore, there is a point where the weighted average cost of capital is minimal and firm performance is maximized when

a capital structure consisting entirely of debt financing is ideal. However, idealizing reality by assuming flawless financial markets is a waste of time. Myers (1984) proposed the trade-off hypothesis, which suggested a positive correlation between a company's capital structure (as measured by its leverage) and its performance. According to this idea, a company's performance is at its peak when its capital structure strikes the sweet spot when the additional benefit of debt is equal to its marginal cost.

According to Jensen and Meckling's (1976) agency cost theory of capital structure, the impacts of the interest tax shield, financial distress costs, and agency costs should all be balanced in order to determine the optimum capital structure. According to the notion, debt finance is a management discipline since debt levels can be tracked. Therefore, a higher proportion of debt financing might reduce agency costs, leading to higher levels of efficiency and productivity at the organization.

According to the pecking order hypothesis proposed by Myers and Majluf (1984), a firm's capital sources fall into a predetermined preference hierarchy. The ideal capital structure plan for a corporation is the result of adhering to this hierarchy. Companies would rather use debt and equity from inside than than seek capital from outside sources. Companies with higher profits are able to retain more of their income, reducing their reliance on external financing and encouraging them to invest in growth opportunities. This is in contrast to less profitable companies, which must resort to debt financing to cover the shortfall in their retained earnings and finance their capital expenditures. There is an inverse relationship between debt levels and a company's success, which is consistent with the pecking order idea.

1.1.4 Non-Financial Firms Listed at the Nairobi Securities Exchange

Stocks and bonds issued by Kenyan corporations are exchanged on the public market known as the Nairobi Securities Exchange (NSE). It is the market leader in Africa's exchange market. Founded in 1954 as a voluntary organization of brokers under the Society Act of what was then British Kenya, its only mission has been the growth and regulation of the country's securities market. Stocks and bonds have been listed and traded on NSE for the last 60 years. In 1988, the Central Bank of Kenya published a blueprint study called "Development of money and capital markets in Kenya," which laid the groundwork for subsequent structural reforms in the financial markets and ultimately gave rise to the Capital Markets Authority (CMA), which oversees the Nairobi Stock Exchange (NSE). The Nairobi Stock Exchange (NSE) has expanded its reach outside the Kenyan market via regional integration, including its participation in the World Federation of Exchanges, the African Securities Exchanges Association, and the East Africa Securities Exchanges Association (Nairobi Securities Exchange, 2016). There are now 64 companies from the agriculture, automotive, banking, business and service, Construction, energy, insurance, investment, manufacturing, telecommunications, and real estate industries listed on the NSE. However, the NSE also includes 46 non-financial companies among its listings. Companies that don't directly provide financial services are considered to be non-financial (Nairobi Securities Exchange, 2021).

Since the shares of companies listed on the NSE are traded on the capital market, they are able to obtain public funding. However, information asymmetry affects flotation costs, making it more expensive to bring fresh shares to market while raising cash on the market. To avoid going outside the company for funding, management would rather use

retained profits to make new investments. Debt financing is favored by management when internal funding is insufficient. Debt financing may help reduce taxes, but there are also major dangers associated with it, such as the possibility of bankruptcy, so management may choose for equity instead. That's why NSE-listed non-financial companies use a mix of stock and debt funding, as well as their own resources, to fund their operations. Each company's management team will have its own set of rules and procedures for deciding how much of each source of funding to use.

Non-financial businesses listed on the NSE have thrived because of the capital structure they've chosen. Rising debt levels in most companies' capital structures have had a severe impact on their profitability. Non-financial companies listed on the NSE with high debt levels, such as Kenya Airways, Mumias Sugar Company, Uchumi Supermarkets, ARM Cement, Home Afrika, and TransCentury, have not been doing well recently, as evidenced by negative trading positions that have led to the receivership of Uchumi Supermarkets and the possible nationalization of Kenya Airways in 2021, as noted by Juma (2016).

1.2 Research Problem

If used properly, a company's capital structure may have a significant impact on its success. According to Brounen and Eichholtz (2001), corporations have no hard and fast rules to follow when deciding whether to issue debt, equity, or hybrid instruments. Under circumstances of ideal capital markets, Modigliani and Miller (1958) argue, a firm's capital structure has no effect on its value. Nevertheless, Modigliani and Miller (1963) found that with 100% debt financing, there is a point where the weighted average cost of capital is reduced while optimizing business performance. This was done by taking into

account corporation taxes and emphasizing the implications of debt tax shield. Myers (1984), using the trade-off theory, describes the ideal capital structure as one in which the incremental benefit of debt is equal to its marginal cost. But under the pecking order hypothesis, Myers and Majluf (1984) found that the more debt a company has in its capital structure, the worse it does financially.

Consequently, NSE-listed non-financial companies' capital structures include equity financing, debt financing, and internal financing. Each company's management team will have its own set of rules and procedures for deciding how much of each source of funding to use. Juma (2016) found that non-financial organizations listed on the NSE with large debt proportions in their financing structure underperformed. This finding suggests that the capital structure of these companies has a significant impact on their performance.

Empirical studies by Roden & Lewellen (1995) analyzing the capital structure of 48 US enterprises between 1981 and 1990 reveal a favorable influence of capital structure on company profitability. Fosu (2013) found same results when he analyzed the impact of capital structure on the performance of 257 South African enterprises between 1998 and 2009. Results showed a significant link between financial leverage and company success. Research by Saeedi and Mahmood (2011), Al-Taani (2013), and Ebaid (2009), however, found no correlation between a company's financial structure and its success.

Kaumbuthu (2011) directed a research that found a negative correlation between the capital structure and financial performance (as defined by return on equity) of industrial sector businesses listed on the NSE between 2004 and 2008. In a same vein, Chepkemoi (2013) discovered a correlation between a company's financial structure and its success

while looking at 295 SMEs in Nakuru. Similar results were found by Maina and Ishmail (2014). Contrasting the results from the local context above, Meshack et al. (2022) found that the composition of the company's capital did, in point of fact, have a beneficial impact on it’s overall success.

It has been difficult to draw any strong conclusions from the empirical research into how capital structure affects company performance because of the contradictory findings. The prior examples demonstrated that the proposal of capital structure insignificance was founded on the obligatory assumptions of efficient capital markets. However, the idea that capital structure doesn't matter is modified by the presence of defects in the market. This study examines the need for more research in this field in an effort to reach a consensus and contribute to the solution of the capital structure conundrum, for which there is currently inconclusive empirical data. In addition, there has been a dearth of studies using panel data estimation approaches to mitigate the inherent heterogeneity bias in Kenyan research on the impact of capital structure on company performance. This investigation is carried out in this context. Using panel data estimation strategies for either the fixed or the random regression analysis models, this research hopes to solve the issue of heterogeneity bias. It is to be commended that the most up-to-date data sets pertaining to research of this kind completed in the Kenyan setting was used.

1.3 Research Objectives

To investigate the consequence of capital structure on the firm performance of non-financial companies listed in the NSE.

1.4 Value of the Study

The results herein will be useful for the capital providers, including current and future lenders and shareholders, as it will assist them make educated lending and investing choices to maximize profits for equity investors and minimize default risk for lenders. Investors may optimize their profits by selecting the most profitable capital structure after learning how their choices affect the firm's performance. Corporate managers in Kenya and elsewhere can benefit from this research since it clarifies the relationship between financial leverage and equity capital, two components of capital structures that may be optimized to increase a company's value.

As this seems to be one of the problematic problems where there is no agreement as to whether capital structure choices are significant or not, the data acquired from this research will also supplement earlier academic studies and become part of current literature on the subject. It will serve as a priceless resource for academics and researchers doing studies in the field of capital structure. It will provide them a resource for doing a literature search to determine the link between capital structure and business success.

Finally, this research will be useful for a wide range of policymakers, including state governments, the CMA, and the Central Bank, in the development of rules that affect the pricing and availability of debt and equity capital.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section outlines a theoretical and empirical literature review on how financing structure of a firm impacts on its performance. It is divided into 3 segments. Segment one provides a brief introduction with section two examining the theoretical literature germane to this research; section three deals with the analysis of empirical literature while the four section substantiates on the determinants of firm performance. The last section of this chapter illustrates a diagrammatic representation of the conceptual framework.

2.2 Theoretical Literature

After Modigliani and Miller's publication of the capital structure irrelevance hypothesis, the idea of capital structure has been a hotly debated topic in the realm of managerial economics (1958). The irrelevant hypothesis focused mostly on the hypothetical scenario of efficient capital markets. Over time, theories like the trade-off theory, the agency cost theory, the pecking order theory, and the market timing theory were developed by critics who were not on board with the irrelevance theory of capital structure. This part of the article explains these concepts in detail.

2.2.1 Trade off Theory

This study is anchored on the trade-off theory by Myers (1984). It states that there exists an optimal level of debt financing which is at the equilibrium point where the marginal benefit of using debt capital equals its marginal cost. An optimum capital structure can be

obtained through a calculated adjustment of debt and equity which seeks to attain an equilibrium of the tax shield and financial distress costs. In Myers (2001), a firm has an optimal debt-equity ratio, i.e., a firm can only increase its leveraging up to the point where the financial distress costs resulting from debt financing is offset by the interest tax shield benefits. Beyond this equilibrium point, any further increase in debt capital will result to marginal costs in excess of marginal benefits which will lead to reduced firm value.

Other costs of using debt as a source of financing for a firm that can be modelled in this theory are bankruptcy and agency costs. Miller (1988) points out that along with increased debt capital in a firm's capital structure sets in the risk of bankruptcy. Cost of debt is associated with direct and indirect cost of bankruptcy emanating from loss of clientele base, and supplier mistrust due to uncertainties as substantiated in Bradeley et al (1984). In addition to bankruptcy costs, Jensen and Meckling (1976) extends agency costs in the trade off theory. The authors argue that the agency relationship that exists between the management of a company and its shareholders gives rise to agency costs. The presence of debt in a firm's capital structure yields valuable information applicable in monitoring agency behavior alongside management's reluctance in liquidating a company's assets entirely for their own self-interest. Contrary to the pecking order theory, this theory overlooks the effect of information asymmetry and the incorporation of different information on conflicts between market participants.

This theory is pertinent to this study because of the vast implications of management's operational decisions on the capital structure. A firm's management can make use of the trade-off theory to establish the leverage ratio to employ to maximize the firm's

performance. The theory further guides on how much debt the non-financial listed firms should employ to evade the likelihood of bankruptcy.

2.2.2 Capital Structure Irrelevance Theory

With the premise of efficient capital markets, Modigliani and Miller (1958) proved that the capital structure of a business does not affect its value. For their case, M&M relied on the idealistic assumptions laid out by Chadha and Sharma (2015), wherein securities are traded in perfect capital markets, wherein symmetrical and costless information is available to all market participants at no cost, and wherein there are no transaction costs, bankruptcy costs, agency costs, or taxes. It is expected that all businesses and individuals use the same interest rate when making loans and taking on new borrowing. In this framework, comparable operational leverage and no tax benefits from loan interest are assumed for businesses in the same risk categories.

Under these conditions, M&M argue that a company's value is unrelated to its capital structure and that there is no optimum balance of debt and equity financing. Accordingly, the theory supports the claim that a leveraged business has the same value as an unlevered one. Since internal and external sources of money are perfect replacements, Dada and Ghazali (2016) argue that the management choice between equity and debt is irrelevant. According to M&M, a higher cost of equity is a direct result of the risk that arises when a company takes on more debt.

Listed non-financial enterprises' performance is independent of the kind of capital funding adopted, according to this idea. The tax consequences of equity financing and the danger of bankruptcy from debt financing are the sources of this, as discussed by Breuer and Gurtler (2008). Debt funding is affected by the risk of bankruptcy, whereas equity

financing is affected by flotation costs. Therefore, there is no strategic benefit for management in selecting one funding method over another.

2.2.3 Pecking Order Theory

Management's preference for either debt or equity capital is irrelevant, according to the M&M irrelevance hypothesis of capital structure. However, Myers and Majluf's (1984) pecking order hypothesis argues that a company's management prioritizes funding from inside the company above outside investors. This idea states that before resorting to external funding sources like loans or stock offerings, businesses should exhaust their internal resources like retained profits. What this means is that corporations can only increase their external borrowing when their internal resources are insufficient to meet their investment needs (Myers 2001). Therefore, if there are no suitable investment options, the company will keep its earnings in the company to use as working capital.

This approach has established a clear hierarchy for the importance of a company's various funding options. First, the company uses its retained profits to finance its long-term investments; after those funds are depleted, it turns to cheaper debt and, only then, to the costliest form of financing, equity. The pecking order idea is based on the belief that management knows something about the company's risks, prospects, and project value that investors do not. Frydenberg (2004) argues that releasing debt sends a message to the market about management's faith in the company and their willingness to pursue debt financing. Because of the limitations of stock issue in conveying information about the firm's prospects with respect to fresh investment possibilities, Myers and Majluf (1984) assign it a low value.

According to this idea, the choice of funding structure may have a significant impact on the success of publicly traded companies outside of the financial sector. It shows that the management would rather fund investments using retained profits, equity financing, and the least likely with debt financing because of the increased risk associated with debt financing. It is implied in the premise that if a company opts for a certain kind of funding, it would improve its performance. Other ideas, such as the agency costs hypothesis, argue that tensions between shareholders (as principals) and management (as agents) may be the deciding factor in favor of one financing method over another.

2.3 Determinants of Financial Performance

Financial performance is a key reason why firms exist. Shareholders invest in firms since they desire returns on their investments. The returns are pegged on financial performance, which elicits interest on financial performance. There are different factors that determine financial performance and in this study capital structure, size of the firm, asset tangibility and liquidity of the firm are among the factors that will be discussed.

2.3.1 Capital Structure

What makes up a company's finances is its capital structure, which is its unique mix of debt and equity. A corporation's capital consists of the sum of its owners' money plus any other resources that may be utilized to grow the company. Equity (the issuance of common shares) and debt are the two most fundamental types of capital structure. Preference shares and retained profits are two further examples. Gitman et al. (2015) also described capital structure as the financing structure of a business, which includes long-term debt, preferred stock, and net worth. Capital structure, according to Van Horne &

Wachowicz (1995) is a combination of long-term sources of capital including debt, common stock, and preferred equity.

Benefits from tax shelters accrued by companies financing their investments with debt may be an example of the impact of capital structure on performance. This means that tax breaks available via debt financing might be used to cut down on overhead expenses. Solvency risks rise, however, when more debt is used as financing since that raises both long- and short-term obligations. Since preferring one kind of financing over another might have a negative impact on a company's performance, it is in the best interest of financial managers to figure out how much of a balance they would strike between debt and equity.

2.3.1 Firm Size

According to Dada and Ghazali (2016), a company's size is a major factor in deciding its capital structure. Amato and Burson (2007) propose using a company's entire asset base as a proxy for its size. Companies that are larger in size have an advantage over smaller ones because of economies of scale and greater negotiating power, both of which have a beneficial effect on the profitability of the former. In the words of Meshack et al (2022). Compared to smaller businesses, those at the corporate level have the means to make the net present value investments that will pay off in the long run.

Mwaniki (2016) said that a substantial asset base indicates the availability of collateral that may be utilized to get credit for financing reasons and enhance the firm's financial performance. Beck et al. (2005) show that business survival, profitability, and productivity are positively correlated with company size. Researchers Raja and Kumar

(2005) also established that larger businesses tend to outperform their smaller counterparts in the stock market.

2.3.2 Asset Tangibility

Asset tangibility can be defined as the quotient of the fixed assets of a firm divided by the total assets. It has a critical role in the determination of a company's levels of debt, turnover and profitability. Al-Najjar (2011) argues that the more tangible a firm's assets are, the greater will be the ability of the firm to access secured debt information signaling about the firm's future profitability position. This is in tandem with Dada and Ghazali (2016) assertions of the ability of a firm to collaterize tangible assets and lower the credit risk. Inevitable to mention is that tangible assets increase the value of a firm in terms of bankruptcy and liquidation instances. Consequently, Niu (2008) concludes that companies that have large amounts of tangible assets in the statements of financial position, tend to employ higher levels of debt financing relative to equity financing.

2.3.3 Firm Liquidity

According to Bhunia et al. (2011), a company is considered liquid if it has sufficient cash on hand to pay its short-term debts when they come due. Iraya et al. (2015) see it as the simplicity with which an asset may be converted into cash. Companies with enough liquidity are better able to weather financial storms and take advantage of opportunities with significant positive returns. According to the pecking order theory of capital structure, successful businesses with a high rate of return prioritize capital from internal sources above those from outside sources. Therefore, an organization will not seek external funding if its assets are liquid enough to cover the cost of its investments.

The current ratio is a measure of the liquidity of a company. When compared to its short-term debt, a company with a healthy current ratio shows that it can meet its immediate financial commitments using its available liquid assets. In addition, it means that organizations with sufficient cash are less vulnerable to liquidity and solvency issues, which is excellent for their bottom line. To put it another way, if a company is unable to utilize its present assets to satisfy its current commitments, it may be unable to take advantage of investment possibilities when they occur. However, the company foregoes income it would have received had the liquid assets been transformed to interest-earning assets rather being held in current assets. This means that financial managers need to make choices about the level of liquidity that should be maintained by the firm to ensure optimal performance without forgoing interest earned or converting all current assets to interest earning assets, both of which would increase solvency and bankruptcy costs.

2.4 Empirical Evidence

Using a panel of 45 manufacturing businesses listed on the Amman Stock Exchange, Al-Taani (2013) conducted research to demonstrate experimentally the connection between capital structure and company performance across varied sectors. Multiple regression analysis was used on secondary data collected from the firms' financial accounts. Based on the data, it seems that there is no connection between the finance structure (as measured by the STD and the LTD) and the success of the business. On the other hand, when financial leverage was used as a metric of capital structure, a positive and statistically significant relationship emerged between capital structure and return on assets.

Of a similar view, Zeitun and Tian (2014) investigated the influence that a company's capital structure had on its performance by analyzing the data of 167 companies that were traded on the Amman Stock Exchange in Jordan. When business size, asset tangibility, political crises, and industry were all taken into account, the findings of a pooled panel regression demonstrated a strong negative connection between capital structure and firm performance. The Gulf Crisis of 1990–1991 had a severe impact on the performance of enterprises trading on the Amman Stock Market, thus it is encouraging to see that the authors of this research were able to account for this.

Hassan et al. (2014) performed an analysis of the relationship between a company's capital structure and its performance using panel data from 36 firms registered on the Dhaka Stock Exchange between 2007 and 2012. The study's researchers used the total debt ratio (TD), the total debt to equity ratio (STD), and the long-term debt to equity ratio (LTD) as independent variables. Using pooled panel data regression analysis and adjusting for business size, this research does a remarkable job of taking into account non-observable features of firms that impact their performance in addition to the predictor variables represented in the analysis. Evidence from this study was inconsistent. All indicators of capital structure were shown to have a significant negative association with return on investment. EPS, a measure of performance, showed strong positive and negative associations with STD and LTD, respectively. However, the analysis shows that there is no relationship between a company's capital structure and its success when return on equity and Tobin's Q are used as performance measurements.

Capital structure and the efficiency of businesses was studied by Appiadjei (2014) in an African setting. Capital structure was assessed using the long-term debt-to-equity ratio

(LTD/TE), the short-term debt-to-equity ratio (STD/TE), and the total equity ratio (TE/E), while performance was assessed using the return on assets (ROA), return on total capital (ROTC), and return on equity (ROE). The authors used a multi-regression model to examine the relationship of interest. The study found that STD considerably improved all indicators of business success. However, a significantly inverse correlation between capital structure and business performance was discovered in the context of the LTD. Kum (2021) found a similar result when he looked at how the funding structure of 5 banks listed on the Ghana Stock Exchange throughout the years 2010-2019. In this study, we found that both long- and short-term debt substantially boosted business performance.

These results are consistent with those found by Ebaid (2009), who investigated how the capital arrangements of 64 Egyptian businesses listed between 1997 and 2005 affected their success on the market. Ebaid used ROA accounting-based indicator of business performance as well as ROE, and gross profit margin to conclude that changes to the firm's capital structure had no effect on its bottom line.

Maina and Ishmail (2014) use panel data for all NSE-listed Kenyan manufacturers from 2002 to 2011 to investigate the impact of capital structure on company profitability in the Kenyan market. Positively, panel data estimation approaches were used to predict the association of interest in this research. Firm performance was evaluated using ROA, ROE, and Tobin's Q. Additionally, capital structure proxies include the debt equity ratio, total debt (TD), and long-term debt to equity ratio. Once again, the research deserves praise for its careful consideration of confounding variables including business size, sales growth, and the availability of physical assets. This study found that a negative

correlation exists between the debt-to-equity ratio as a proxy for capital structure and the business performance indices of ROA, ROE, and Tobin's Q.

Githire and Muturi (2015) conducted research on the connection between short- and long-term sources of debt financing and equity funding and ROA as a measure of and business performance, echoing the methodology of Maina and Ishmail (2014). From 2008 to 2013, all firms listed on the NSE were used as panel data in this research. This research found that a rise in long-term debt led to an increase of 0.16 units in return on assets, suggesting that the two are causally related. The research also found that short-term debt negatively correlates with company performance, with an increase in debt leading to a 4.2 percentage point decrease in efficiency. This work was criticized for using multiple linear regression instead of panel data estimation methods, which would have reduced the possibility of bias due to heterogeneity.

Mutegi (2016) studied 47 non-financial firms listed on the NSE between 2011 and 2015 to establish whether capital structure had an impact on company performance. As a proxy for capital structure, the research looked at the debt-to-equity ratio, while ROA was utilized to assess performance. Asset tangibility and the firm's liquidity level were used as control variables. Maina and Ishmail (2014) employed panel data estimation methods to predict the connection of interest; in contrast, Mutegi (2006) did a straightforward regression analysis, which ignored heterogeneity bias. One unit rise in the debt ratio was shown to result in a 0.1 unit drop in the performance of the business, as measured by ROA. The findings of the research disprove the M & M irrelevance hypothesis of capital structure, which holds that the choice between debt and equity capital made by a company's management has no advantageous results.

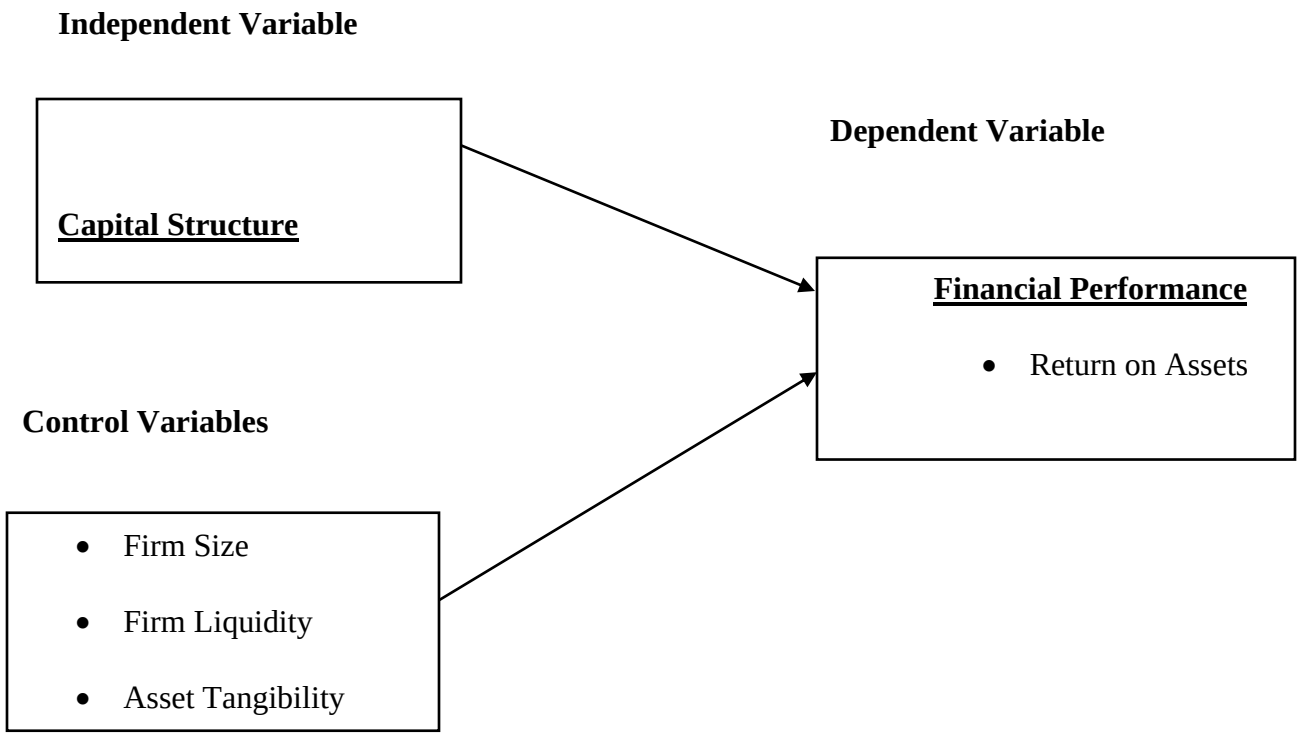
Kabugi (2020) examined how debt financing affected 42 NSE-listed non-financial enterprises performance between 2015 and 2019. The size of the company, its liquidity, and the tangibility of its assets were the three independent variables included in this analysis. The aforementioned connection between debt financing and company performance was determined using a multiple linear regression model. The results of this analysis demonstrated a causal link between debt financing and economic efficiency.

Meshack et al. (2022) studied how capital structure affects company performance using data from 53 NSE-listed non-financial firms from 2010 to 2017. The 371 observations are the biggest of any such study, which is cause for praise. To add, this is the most current research focusing on the NSE that attempts to deduce a connection between capital structure and business performance. After adjusting for company size, this research employed financial leverage and Tobin's Q as surrogates for capital structure and performance, respectively. The empirical results of this research corroborated those of Kabugi, (2020) in showing that capital structure had a beneficial impact on business performance. According to the standards of the Tehran Stock Exchange, our findings align with those of Saeedi and Mahmoodi (2011).

2.5 Conceptual Framework

The conceptual model adopted in this study is illustrated in figure 2.1 below

Figure 2.1: Conceptual Framework



CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

In this segment, the study's methodology is outlined. According to Buckley and Chiang (1976), a researcher's technique is the architectural design they use to plot out how they'll go about addressing an issue. It lays up a blueprint for the whole study's execution, including each stage and method. The research methodology, demographic, sample, variable definitions and measurements, and analytical model are all justified in this section.

3.2 Research Design

Research design as explained by Hair et al (2007), involves the establishment of the outline for the assemblage, measurement and analysis of data. It is a roadmap that integrates the distinct segments of the study in an articulate and sound manner. This study employed both a descriptive and a historical research design in analyzing how capital structure affects firm performance

According to Kothari (2004), descriptive research embarks on a fact-finding study; to find out the what, the where and the how of a phenomenon. This design is fit for this study as it seeks to articulate the connection between a firm performance which is the dependent variable and the firm’s capital structure. Additionally, this study adopted a historical research design to collect, and authenticate evidence derived from historical financial information to establish actualities. The secondary sources of data adopted herein were adequate, dependable and pertinent.

3.3 Study Population

The 46 non-financial enterprises listed on the NSE made up the sample population. From 2017 through 2021, the study collected information on these businesses to create a 230-observation panel dataset.

3.4 Data Collection

The study adopted the use of secondary data. The data on all the research variables as modelled in the analytical model in section 3.6 below was collected from the audited financial reports covering the period being reviewed of the firms either from their websites or from the NSE handbook. Specifically, data was drawn from the Statements of Comprehensive Income and the Statements of Financial Positions of the study sample firms.

3.5 Definition and Measurement of Variables

3.5.1 Depended Variable

Response-on-action (ROA) served as the study's dependent variable. Each of the 46 firms' ROA was calculated by dividing their net profit by their total assets as reported on their statement of financial status for the respective year (2017-2021).

Majumdar and Chhibber (1999), Abor (2005), and Saeedi and Mahmoodi (2011) are just a few examples of researchers that have looked at ROA as a proxy for company success in their studies.

3.5.2 Independent Variables

The indicator of the capital structure was being used as the independent variable. The overall debt ratio served as the explanatory variable, as it had in the empirical investigations of Abor (2005), Ebaid (2009), and Saeedi and Mahmoodi (2011). (TD).

For each of the 46 enterprises throughout the 5-year period, the TD was derived at by dividing the total debt by the total assets.

$$TD_{it} = \frac{Total\ debt_{it}}{Total\ assets_{it}}$$

3.5.3 Control Variables

The control variables employed in this study were firm size, firm liquidity and asset tangibility. Studies conducted by Ramaswamy (2001), Frank and Goyal (2003) and Ebaid (2009) imply that the size of a firm may impact its performance. Consequently, this study controls for the variances in company's operating environment by factoring in the size variable and asset tangibility in the model. For this study, we used the natural log of a company's total assets to determine its size, and we calculated the tangibility of its assets by dividing the ratio of tangible assets by the sum of all its assets.

Table 3.1 below summarizes all the variables assumed in this study

Table 3.1: Research Variables

Variable	Expression	Meaning
Dependent Variables		
ROA	$Net\ income / Total\ Assets$	Return on Assets
Independent Variables		
TD	$Total\ Debt / Total\ Assets$	Total Debt Ratio
Control Variables		
Size	Ln Total $Assets$	Firm Size
FL	$Current\ Assets / Current\ Liabilities$	Firm Liquidity
AT	$Fixed\ assets / Total\ Assets$	Asset tangibility

3.6 Analytical Model

To model the association between the capital structure of a firm and its performance, this research used panel data estimation models to investigate the firm performance as measured by ROA across the panel of 46 companies quoted in the NSE from 2017 to 2021. The study employed E-Views statistical software for data analysis.

This study adopted panel estimation techniques of fixed-effect and random-effect regression analysis models for data analysis. Brooks (2014) articulates the major benefits of employing either of the aforementioned panel regression models in research as their

capacity to explore firm-specific period-invariant unobserved heterogeneity problem i.e., inherent characteristics of the firms being studied that are either hard to observe or measure, for example, preferences or skills of a firm's management. These techniques served to abate the heterogeneity partiality.

The specific empirical model was specified as follows;

$$ROA_{it} = \alpha + \beta_1 TD_{it} + \beta_2 Size_{it} + \beta_3 FL_{it} + \beta_4 AT_{it} + V_i + e_{it}$$

Where

ROA_{it} = Return on Assets of company i at time t

TD_{it} = Total Debt Ratio of company i at time t

$Size_{it}$ = Size (measured by $\ln Total\ Assets$) of company i at time t

FL_{it} = Firm Liquidity of company i at time t

AT_{it} = Asset Tangibility of company i at time t

α = Constant term, Y intercept (the value of Y when $X = 0$)

β = Coefficients of the explanatory variables

v_i is constant for a firm over the period under study.

e = Error term

3.7 Diagnostic Tests

To check the study model's suitability, the following diagnostic tests were conducted:

3.7.1 Hausman Test

The research will use a Random Effect - Hausman test, with the null hypothesis being that the random effects model is the best fit for data analysis, to help decide between fixed and random effect panel estimates. The alternative hypothesis is therefore, the Fixed Effect is preferred. Principally, Hausman (1978) states in order to establish whether there exists a correlation between the model's unique errors and its independent variables, it is essential to run a Hausman test.

3.7.2 Multi-Collinearity Test

Running regression on data in which the independent variables are substantially associated with one another will provide findings that are not accurate. This indicates that the effects of each independent variable on the dependent variable should be treated separately. Tolerance levels greater than 1 indicate multi-collinearity between the independent variables, and variation inflation factors (VIFs) r are used to determine multi-collinearity. According to the guideline, multi-collinearity that causes misleading regressions is present if the VIF value is larger than 10.

3.7.3 Autocorrelations Test

The autocorrelation test evaluates the degree to which the same variable is correlated over two discrete periods of time. A Durbin-Watson test was used in the investigation to identify autocorrelation. This test yields scores between 0 and 4, inclusive. The lack of

serial correlation is shown by a Durbin-Watson statistic close to 2, whereas positive and negative serial correlation are indicated by values trending toward 0 and 4, respectively.

3.7.4 Heteroscedasticity Test

Heteroscedasticity test was undertaken by use of Breusch Pagan Test. The assumption is that data should be homoscedastic and therefore the variation between the line of best fit and each variable arises as a result of chance and any bias is cancelled out as distribution is equally above and below the line of best fit. Data that is heteroscedastic suggests that transformation of the data is preferred before undertaking regression analysis.

3.7.5 Normality Test

Normality is a test of assumption that the residuals of the response variable are normally distributed around the mean. A Kolmogorov-Smirnov Test was employed in addition to a Shapiro-Wilk Test.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION

4.1 Introduction

A detailed model analysis in line with this study's objective of establishing whether capital structure of non-financial firms listed in the NSE had any effects on their performance was conducted in this chapter. Firm performance was the dependent variable, capital structure the predictor variable while asset tangibility, liquidity as well as the size of the firm comprised the control variables. The examination was premised on the attained data.

4.2 Descriptive Statistics

The descriptive statistics entail the mean, standard deviation, most extreme and least qualities, and number of perceptions, skewness and kurtosis. These statistics are tabulated in table 4.1.

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Dev	Skewness	Kurtosis
ROA	211	-2.554	.479	-.007	.243	-.059	.663
Total Debt Ratio	211	.000	2.635	.431	.343	.026	.224
Firm size	211	3.352	9.589	6.789	1.139	-.111	.584
Liquidity	211	.029	14.199	2.544	2.930	.095	.141
Asset tangibility	211	.000	.992	.6265	.2445	-.537	-.682

Source: Researcher (2022)

The finding on table 4.1 indicates that the average ROA for the considered study period was -0.7% with a minimum and maximum value of -255.4% and 47.9% respectively. The results further capture the average capital structure as 0.431, with a minimum and maximum fluctuation of 0.000 and 2.635 whilst the expected firm size value was 6.789 with the minimum and maximum values being 3.352 and 9.589respectively. The findings further show that the average liquidity over the study period was 2.544 with minimum and maximum liquidity being 0.029 and 14.199 whereas the average asset tangibility was 0.6265 with a low outlier limit of 0.000 and a maximum limit of 0.992 respectively. Kurtosis and skewness values lie within the acceptable limits of -1 to +1 thus an indication that the data is normally distributed.

4.3 Diagnostic Tests

4.3.1 Hausman Test

To establish the preferable panel estimation technique concerning fixed and random effects, this investigation conducted a Hausman test whose null hypothesis was that the most suitable model for analysis of data was the random effects model. The alternative hypothesis was therefore, the Fixed Effect was preferred. The results of this test were outlined in table 4.2 below

Table 4.2: Hausman Test Results

	Co-efficient.
Chi-square test value	3.874
P-value	0.4233

Source: Researcher (2022)

A p-value of 0.4233 greater than 0.05 significance level meant that the null hypothesis is not rejected and as a result, the random effect was the preferred model.

4.3.2 Test for Multi-Collinearity

If the correlation between the two independent variables is moderate or strong in the multiple regression model, multicollinearity occurs. We shall quantify the degree of multicollinearity using the Variance Inflation Factor (VIF). The variance inflation factor is used to quantify the spread of estimated coefficients when there is a connection between independent and dependent variables (VIF).

Table 4.3: Coefficients[a]

	Collinearity Statistics Tolerance	VIF
ROA	.342	2.924
Total Debt Ratio	.712	1.404
Firm size	.576	1.736
Liquidity	.487	2.053
Asset tangibility	.392	2.551

Source: Researcher (2022)

In the results above, all the VIFs are between 1 and 10, therefore, there is no multicollinearity.

4.3.3 Tests for Autocorrelation

Autocorrelation tests were conducted to test the assumption that residuals are independently distributed, a phenomenon referred to as serial independence. This implies that autocorrelation exists if the covariances and correlations between different residuals are all not zero. To test for autocorrelation, a Durbin-Watson test was employed.

A Durbin-Watson value of 1.926 which is approximately 2, thus, it can be concluded that there was no autocorrelation in the data set

Table 4.4: Autocorrelation Test

Model	Durbin-Watson
1	1.926

Source: Researcher (2022)

a. Predictors: (Constant), Total debt ratio, firm size, liquidity, asset tangibility

b. Dependent Variable: ROA

4.3.4 Heteroscedasticity

Heteroscedasticity occurs when the classical linear regression model assumption of residuals having a constant variance independent of time is violated. The null hypothesis in the test for heteroscedasticity is that the residual variances are constant. Table 4.5 shows the results of a Breusch-Pagan test for heteroscedasticity.

Table 4.5: Breusch-Pagan test for Heteroscedasticity

Source	chi2	Df	P
Heteroscedasticity	6.452	211	0.1678

Source; Researcher (2022)

Results in Table 4.5 show that the p-value (p=0.1675) which is greater than the critical value of 0.05 hence there is very minimal problem of the heteroscedasticity

4.3.5 Normality Tests

To test for normalcy, Shapiro-Wilk test was applied. The secondary data non-normality null hypothesis was tested. Alternatively, the secondary data was normal.

P-values over 0.05 reject the null hypothesis while p-values below 0.05 do not reject the null hypothesis. Table 4.6 below summarizes the outcomes of a Shapiro-Wilk test for normality.

Table 4.6: Shapiro-Wilk Test of Normality

Variables	**Kolmogorov-Smirnov[a]**			**Shapiro-Wilk**		
	Statistic	**Df**	**Sig.**	**Statistic**	**df**	**Sig.**
ROA	.243	211	.246	.647	211	.367
Total debt ratio	.365	211	.246	.598	211	.367
Firm size	.325	211	.246	.657	211	.367
Liquidity	.279	211	.246	.712	211	.367
Asset tangibility	.456	211	.246	.657	211	.367

Source; Researcher (2022)

The results shown in table 4.6 above showed a p-value of 0.367 for the Shapiro-Wilk values for ROA, total debt ratio, firm size, liquidity and asset tangibility is lesser than 0.05 implying that null of non-normality is rejected. Similarly, the results of Kolmogorov-Smirnov normality test resulted in similar rejection of the null hypothesis of normality as evidenced by the p-value of 0.246 for ROA, total debt ratio, firm size, liquidity and asset tangibility. Therefore, the data was normally distributed.

4.4 Correlation Analysis

The criticality of a correlation analysis is to examine the association between the regressors in study's regression model.

Table 4.7: Correlation Analysis

	ROA	Total Debt Ratio	Firm size	Liquidity	Asset tangibility
ROA	1				
Total Debt Ratio	0.72	1			
	(0.04)				
Firm size	0.41	0.15	1		
	(0.02)	(0.05)			
Liquidity	0.59	0.16	0.27	1	
	(0.03)	(0.02)	(0.05)		
Asset tangibility	0.68	0.21	0.38	0.43	1
	(0.03)	(0.03)	(0.05)	(0.01)	

Source; Researcher (2022); Probability in parenthesis

Table 4.7 depicts the correlation matrix for the model's variables. The correlations between the regressors in this study are below the standard figure of 0.72 implying that it is accurate to employ them as independent variables the random effect model of this study. Put otherwise, the correlations are within acceptable limit for all predictor variables to be validly used in the study model.

4.5 Random-Effects Model

A Random-Effects regression was carried out in order to model the effect that the choice of a firm's financing decision as measured by total-debt ratio had on its performance as shown by ROA, after controlling for firm size, firm liquidity, and asset tangibility. This was done in order to model the effect that firm performance had on firm performance as measured by ROA. Table 4.8 below provides the results generated from the random-effects regression model

Table 4.8: Estimation Results of Random - Effects model

Dependent Variable: Return on Assets				
Method: Panel EGLS (Cross-section random effects)				
panel (balanced) observations: 211				
	Coefficient	Std. Error	t-Statistic	Prob
Constant	4.301	1.297	3.315	0.0018
Total debt ratio	0.062	0.021	2.952	0.005
Firm size	0.045	0.014	3.214	0.0026
Liquidity	0.052	0.023	2.261	0.0029
Asset tangibility	0.059	0.012	4.917	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R	.929[a]			
R-squared	.862			
Adjusted R-squared	.849			
S.E. of regression	.0162651			
F-statistic	429.105			

Prob(F-statistic)	0.0000

Source: Research data, from regression results with E-views 8

Results from table 4.8 above show that 84.9 percent of the variations in ROA as a measure of firm performance are explained by variations in total debt ratio as a measure of capital structure, firm size, firm liquidity and asset tangibility as captured by the study's regression model.

The Random-Effect regression model is stated as follows in line with the results in table 4.8 above:

$$Y = 4.301 + 0.062TD_{it} + 0.045\ Size_{it} + 0.052\ FL_{it} + 0.059\ AT_{it}$$

From the regression coefficients in the model above, it is evident that a unit increase in the total debt ratio will lead to 0.062 units increase in ROA. This positive association between ROA and total debt ratio is statistically significant. Consequently, increasing the total debt ratio of a non-financial firm listed in the NSE will lead to increased ROA as a measure of firm performance.

There also exists a significantly direct influence of firm size on firm performance. A unit increase in the size of a non-financial firms listed in the NSE will result into 0.045 units increase in ROA. Correspondingly, liquidity exhibited a similar relationship with performance of firms as with firm size. A unit increase in firm liquidity will result into 0.052 units increase in ROA. This association between liquidity and ROA was significant as indicated by t- value of 2.261. In addition, asset tangibility showed a positive impact on of non-financial firms listed at NSE which means that a unit increase in asset

tangibility will result into ROA growth by 0.059 units. The relationship was statistically significant as indicated by t- value of 4.917.

4.6 Discussion of Findings

The purpose of this research was to evaluate the influence that capital structure has on performance of NSE-trading non-financial companies. The total debt ratio was utilized as a measurement of capital structure in the research, whilst return on assets was used as a measurement of business performance. Firm size, firm liquidity and asset tangibility were employed as the control variables. The empirical findings of this study established a statistically positive relation between total debt ration and ROA. These findings were similar to those of Kerongo (2022) whose study sought to investigate the relationship between 53 NSE-quoted non-financial enterprises capital structure, size, liquidity and their performance from 2010 to 2017. The empirical results of an ordinary linear regression showed that there existed a statistically significant positive relation between capital structure and firm performance. According to Van Horne & Wachowicz (1995), the use of high levels of debt financing in the capital structure of a firm will result to increased firm performance when the benefits of using debt financing outweigh the costs.

The findings of this research also indicated that there was a strong positive association between firm size and firm performance. The findings indicated that a unit increase in firm size was associated with a 0.045-unit improvement in firm performance for each unit increase in firm size. Similar to this study, Amato and Burson (2007) opined that a company's entire asset base as a proxy for firm size. Mwaniki (2016) argued that a substantial asset base as a measure of firm size indicated the availability of collateral that could be utilized to access credit for financing real assets thereby enhancing the firm's

financial performance. Companies that are larger in size have an advantage over smaller ones because of economies of scale and greater negotiating power, both of which have a beneficial effect on the profitability of the former.

Similarly, the findings of this study showed that liquidity had a significantly positive effect on firm performance as shown by the 0.052 units increase in ROA resulting from a unit increament in firm liquidity. These findings are similar to those of Kerongo (2022) who argued that firms which employed high amounts of debt financing tended to have high liquidity to mitigate the risk of default. Additionally, Akenga (2017) asserted that the liquidity of a firm was critical in influencing its positive performance.

Likewise, asset tangibility indicated a positive effect on ROA which implied that a unit increase in the liquidity of a non-financial firm listed in the NSE resulted to 0.059 units increase in the firm's performance. In tandem with the study findings, Al-Najjar (2011) argues that the more tangible a firm's assets are, the greater will be the ability of the firm to access secured debt. This is in tandem with Dada and Ghazali (2016) assertions of the ability of a firm to collaterize tangible assets and lower the credit risk. Consequently, Niu (2008) concludes that companies that have large amounts of tangible assets in the statements of financial position, tend to employ higher levels of debt financing relative to equity financing

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The findings have been discussed relative to the aspects as presented in chapter four on the effects of capital structure on firm performance of non-financial firms listed at NSE. The conclusion and policy implications are also based on such findings.

5.2 Summary of Findings

The descriptive statistics showed that the minimum value of the total debt ratio is 0.000 with the maximum value being 2.635. The average total debt ratio was 0.431 with a root-mean square deviation of 0.343. The findings showed a minimum firm size of 3.352 and a maximum firm size 9.589. The average firm size value was 6.789 with a root-mean square deviation of 1.139. Firm liquidity had a minimum value of 0.029, a maximum value of 14.199 and a mean value of 2.544 with a standard deviation of 2.930. The descriptive statistics also revealed minimum and maximum values of asset tangibility of 0.000 and 0.992 respectively and an average of 0.6265 and a standard deviation of 0.2445.

The ANOVA was utilized to decide how fit the random effect model was in the investigation. The results of the ANOVA test indicated that 83.9 percent of variability in firm performance was explained by the model whilst 16.1 percent of variability in firm performance was attributed to variables not factored in the model.

The correlation analysis indicated a Pearson Correlation of 0.72 between the total debt ratio and ROA with a p-value of 0.04. This indicates that a statistically significant

positive correlation exists between capital structure and firm performance. The study results further revealed a correlation that's significant concerning firm size and firm performance as indicated by a Pearson correlation of 0.41 with a p-value of 0.02. With regards to firm liquidity and firm performance, the Pearson correlation was 0.59 with a p-value of 0.03. This implied that there exists a positive correlation between firm liquidity and firm size and with a p-value of 0.03 which is less than 0.05, this positive correlation is statistically significant. A similar positive and statistically significant correlation exists between asset tangibility and firm performance as indicated by a Pearson's correlation of 0.68 with a p-value of 0.03.

5.3 Conclusion

The findings of this study show that capital structure affects NSE-quoted non-financial firms' performance. The findings show that a unitary increment in the capital structure will result in a 0.062 unit increase in ROA. Similarly, a unit increase in firm size of non-financial firms listed in the NSE would result in a 0.045 increase in the firm performance of the same. Liquidity demonstrated a positive effect on non-financial firm performance as measured by ROA as shown by the consequential 0.052 increase in firm performance resulting from unitary increase in firm liquidity. It was found that non-financial companies listed on the NSE that increased their asset tangibility by one unit had a 0.059 rise in their firm performance, which is evidence that asset tangibility has a favorable influence on company performance.

In addition, the research came to the conclusion that size and liquidity were major control factors in the association between business performance and capital structure of non-financial companies that were listed on the NSE.

5.4 Recommendations

The study established that capital structure has a positive effect on the firm performance of non-financial firms listed at NSE. The study recommends that the management team of non-financial firms listed at NSE should increase the debt proportion in their capital structure to finance their business operations since the benefits of using debt has been empirically proven in this study to lead to increased firm performance.

The findings of this study have established that a positive relationship exists between performance of NSE-listed non-financial firms and their liquidity position. Consequently, non-financial firms listed at NSE should employ good financial practices to guarantee that the firm works within adequate degrees of liquidity that will prompt improved performance of firms. This is premised on the fact that a firm's liquidity position is of high significance since it impacts the firm's current operations and its going concern. However, too much liquidity would mean that the firm has huge amount of tied up capital that would have otherwise been used in other profitable investments.

In addition, the study has revealed that the size of NSE-quoted non-financial firms influenced their performance positively. Large firms enjoy economies of scale from their operations. This study recommends that non-financial firms listed at NSE should find ways of growing their business operations to reap these benefits. This study also recommends that sufficient strategies ought to be established by managers of these firms

for enhancement and growth of their firms by increasing their assets. Non-financial firms listed at NSE in general should embark on growing their assets.

5.5 Limitation of the Study

The research findings of this study are only applicable to the context of study which is non-financial firms listed in the NSE. Generalization of these findings to firms beyond the context of study might amount to a fallacy of generalization.

This research was conducted over a short time frame of study. The 5-year time frame is relatively small to make conclusive inferences on the impact of capital structure on firm performance. Longer study periods translate to wider data coverage which result into more accurate inferences relative to shorter study periods.

5.6 Suggestions for Future Research

It will be necessary to conduct another study covering a wider sample size and geographical area. Moreover, the study should employ a comparative analysis approach on all firms listed at NSE in Kenya.

Secondly, the sample adopted in this study is composed of multi-sectoral firms i.e., firms from agriculture, energy and petroleum, commercial and services, automobile and accessories, telecommunication and technology, construction and allied, investment, manufacturing and allied, real estate and exchange traded fund sectors. The only shared characteristic of the firms in the study sample is their non-financial nature, otherwise, these firms are drawn from diverse sectors. Future research should target studying impact of capital structure on the firm performance of firms within one sector.

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APPENDICES

Appendix 1: List of listed Non-Financial Companies

	FIRM	SECTOR
1	Eaagads Ltd	Agriculture
2	Kapchorua Tea Co. Ltd	Agriculture
3	Kakuzi Ltd	Agriculture
4	Limuru Tea Co. Ltd	Agriculture
5	Rea Vipingo Plantations Ltd	Agriculture
6	Sasini Ltd	Agriculture
7	Williamson Tea Kenya Ltd	Agriculture
1	Car and General (K) Ltd	Automobiles and Accessories
1	Express Ltd	Commercial & Services
2	Sameer Africa Plc	Commercial & Services
3	Kenya Airways Ltd	Commercial & Services
4	Nation Media Group	Commercial & Services
5	Standard Group Ltd	Commercial & Services

6	TPS Eastern Africa (Serena) Ltd	Commercial & Services
7	Scangroup Ltd	Commercial & Services
8	Uchumi Supermarket Ltd	Commercial & Services
9	Longhorn Publishers Ltd	Commercial & Services
10	Deacons (East Africa) Plc	Commercial & Services
11	Nairobi Business Ventures Ltd	Commercial & Services
1	Athi River Mining	Construction & Allied
2	Bamburi Cement Plc	Construction & Allied
3	Crown Paints Kenya Plc	Construction & Allied
4	E.A Cables Ltd	Construction & Allied
5	E.A Portland Cement Ltd	Construction & Allied
1	Total Kenya Ltd	Energy and Petroleum
2	KenGen Ltd	Energy and Petroleum
3	Kenya Power & Lighting Co. Ltd	Energy and Petroleum
4	Umeme Ltd	Energy and Petroleum
1	Olympia Capital Holdings Ltd	Investment
2	Centum Investment Co. Ltd	Investment
3	Trans-Century Ltd	Investment
4	Home Afrika Ltd	Investment
5	Kurwitu Ventures Ltd	Investment
1	Nairobi Securities Exchange Ltd	Investment Services
1	B.O.C Kenya Ltd	Manufacturing and Allied
2	British American Tobacco Kenya Ltd	Manufacturing and Allied

3	Carbacid Investment Ltd	Manufacturing and Allied
4	East Africa Breweries Ltd	Manufacturing and Allied
5	Mumias Sugar Co. Ltd	Manufacturing and Allied
6	Unga Group Plc	Manufacturing and Allied
7	Eveready East Africa Ltd	Manufacturing and Allied
8	Kenya Orchards Ltd	Manufacturing and Allied
9	Flame Tree Group Holdings Ltd	Manufacturing and Allied
1	Safaricom Plc	Telecommunication and Technology
1	Stanlib Fahari - REIT	Real Estate Investment Trust
1	New Gold Issuer (RP) Ltd	Exchange Traded Fund

Source: Nairobi Securities Exchange Website

Appendix 2: Data Collection Form

Name	Year	Total Debt	Total Assets	Net income	Current Assets	Current Liabilities	Fixed Assets
	2017						
	2018						
	2019						
	2020						
	2021						

Appendix 3: Raw Data

Year	Firm	ROA	Debt Ratio	Size	Liquidity	Asset tangibility
2017	Eaagads Ltd	0.01962	0.05887	5.96511	12.84809	0.84012
2017	Kapchorua Tea Co. Ltd	-0.02550	0.30281	6.30756	3.46275	0.61154
2017	Kakuzi Ltd	0.11535	0.27764	6.71005	3.90210	0.65096
2017	Limuru Tea Co. Ltd	-0.01396	0.13279	5.41832	3.55681	0.46461
2017	Rea Vipingo Plantations Ltd	0.20303	0.21406	6.66365	14.19891	0.44156
2017	Sasini Ltd	0.02572	0.14248	7.12044	4.24065	0.77378
2017	Williamson Tea Kenya Ltd	-0.03128	0.27138	6.92242	3.47208	0.63976
2017	Car and General (K) Ltd	0.00862	0.63768	6.96696	1.02986	0.49504
2017	Express Ltd	-0.25102	0.51436	8.55622	0.59742	0.73098
2017	Sameer Africa Plc	0.00090	0.38117	6.47274	1.54851	0.42809
2017	Kenya Airways Ltd	-0.06975	0.81833	5.16537	0.37513	0.81587
2017	Nation Media Group	0.16001	0.38500	3.91340	2.01755	0.61146
2017	Standard Group Ltd	-0.04728	0.58197	6.64930	0.84728	0.57968
2017	TPS Eastern Africa Ltd	0.00683	0.25544	7.24271	1.07877	0.84865
2017	Scangroup Ltd	0.01194	0.34084	7.11991	2.41647	0.17719
2017	Uchumi Supermarkets	-0.38383	0.45595	6.63622	0.08273	0.87150
2017	Longhorn Publishers Ltd	0.06382	0.49121	6.26922	1.37003	0.32703
2017	Deacons (East Africa) Plc	-0.53013	0.15149	6.19113	0.78354	0.43147
2017	Nairobi Business Ventures Ltd	-0.22857	0.68691	8.15750	2.99023	0.29598

2017	Athiriver Mining	-0.09901	0.03303	7.63011	0.21655	0.91274
2017	Bamburi Cement Plc	0.05328	0.30105	4.53802	1.57077	0.96260
2017	Crown Paints Kenya Plc	0.03911	0.70066	6.76876	1.19055	0.22587
2017	E.A Cables Ltd	-0.09417	0.73306	6.84748	0.43788	0.66234
2017	East Africa Portland Cement Ltd	-0.05378	0.11847	7.43707	0.31456	0.92875
2017	Total Kenya Ltd	0.07204	0.43657	7.57992	1.73565	0.30342
2017	KenGen Ltd	0.02401	0.51404	8.57657	1.47509	0.92018
2017	Kenya Power & Lighting Co. Ltd	0.02127	0.54955	8.53359	0.86750	0.80891
2017	Umeme Ltd	0.01511	0.73710	6.37096	0.60266	0.81660
2017	Olympia Capital Holdings Ltd	0.02905	0.20356	6.21452	1.63317	0.78814
2017	Centum Investment Co. Ltd	0.00730	0.38237	8.00759	0.31682	0.85305
2017	Trans-Century Ltd	-0.20861	1.00598	7.27279	0.40486	0.69028
2017	Home Afrika Ltd	-0.04052	0.15789	6.65107	2.89390	0.15209
2017	Kurwitu Ventures Ltd	-0.07715	0.50158	5.14748	3.00897	0.91404
2017	Nairobi Securities Exchange Ltd	0.10257	0.04569	6.32392	12.04818	0.49133
2017	B.O.C Kenya Ltd	0.01767	0.11891	6.34805	1.95386	0.45880
2017	British American Tobacco Kenya Ltd	0.29704	0.88731	7.05042	1.31798	0.81385
2017	Carbacid Investment Ltd	0.10653	0.11578	6.51943	6.80234	0.69517
2017	East Africa Breweries Ltd	0.12772	0.82018	7.82391	1.00686	0.66798
2017	Mumias Sugar Co. Ltd	-0.28130	0.22125	7.38186	0.10929	0.92278
2017	Unga Group Plc	-0.00074	0.05968	6.97568	1.65791	0.30205

2017	Eveready East Africa Ltd	0.47862	0.39999	5.74680	2.69480	0.34895
2017	Kenya Orchards Ltd	0.05296	0.51970	8.03454	1.71323	0.42101
2017	Flame Tree Group Holdings Ltd	0.00723	0.21308	6.22551	1.29066	0.32078
2017	Safaricom Plc	0.29962	0.00034	8.20868	0.46422	0.84439
2017	Stanlib Fahari - REIT	0.04549	0.02537	9.57538	13.59391	0.65507
2018	Eaagads Ltd	-0.06902	0.09375	5.95708	8.77438	0.86872
2018	Kapchorua Tea Co. Ltd	0.06686	0.32841	6.39603	2.91969	0.55942
2018	Kakuzi Ltd	0.08676	0.22907	6.74438	5.94136	0.65287
2018	Limuru Tea Co. Ltd	0.00138	0.01101	6.42931	3.50211	0.04046
2018	Rea Vipingo Plantations Ltd	0.26688	0.25883	6.70759	7.60620	0.43760
2018	Sasini Ltd	0.03229	0.12634	7.11265	5.76247	0.79590
2018	Williamson Tea Kenya Ltd	0.05289	0.27961	6.97796	2.98552	0.61524
2018	Car and General (K) Ltd	0.02219	0.64575	7.00747	0.99029	0.50565
2018	Express Ltd	-0.21714	0.81650	8.50643	3.43693	0.76489
2018	Sameer Africa Plc	-0.20872	0.56350	6.41293	0.90378	0.49758
2018	Kenya Airways Ltd	-0.05532	0.70341	5.13556	0.20475	0.79525
2018	Nation Media Group	0.12694	0.41985	3.89804	1.95356	0.60322
2018	Standard Group Ltd	0.05588	0.58207	6.66989	0.91204	0.57409
2018	TPS Eastern Africa Ltd	0.01017	0.24345	7.24547	0.43384	0.87982
2018	Scangroup Ltd	0.01409	0.36932	7.14443	2.16701	0.20063
2018	Longhorn Publishers Ltd	0.07183	0.56817	6.38157	1.20904	0.31306
2018	Nairobi Business Ventures Ltd	-0.89020	1.36685	7.93438	1.64717	0.18320

2018	Bamburi Cement Plc	0.00831	0.32277	4.68116	1.26212	0.79000
2018	Crown Paints Kenya Plc	0.03187	0.81247	6.73844	1.01294	0.28889
2018	E.A Cables Ltd	-0.08607	2.63508	6.81978	0.25774	0.82826
2018	East Africa Portland Cement Ltd	0.20505	0.05483	7.58010	0.24842	0.94778
2018	Total Kenya Ltd	0.05891	0.42265	7.59394	1.77132	0.30498
2018	KenGen Ltd	0.02080	0.49887	8.57904	1.50445	0.91720
2018	Kenya Power & Lighting Co. Ltd	0.00984	0.49779	8.52149	0.47281	0.84881
2018	Umeme Ltd	0.05391	0.70686	6.39158	0.44681	0.86297
2018	Olympia Capital Holdings Ltd	-0.00254	0.21047	6.21691	1.78073	0.76133
2018	Centum Investment Co. Ltd	0.01102	0.47836	7.97526	0.32604	0.85340
2018	Trans-Century Ltd	-0.17805	1.19826	7.22189	0.25305	0.77318
2018	Home Afrika Ltd	-0.07689	0.17836	6.65345	3.06276	0.15106
2018	Kurwitu Ventures Ltd	-0.03900	0.47373	5.14078	0.63854	0.94374
2018	Nairobi Securities Exchange Ltd	0.08595	0.05528	6.34604	9.49624	0.48662
2018	B.O.C Kenya Ltd	0.03109	0.04762	6.33077	1.88356	0.45276
2018	British American Tobacco Kenya Ltd	0.32556	0.71966	7.09851	1.59108	0.72713
2018	Carbacid Investment Ltd	0.09162	0.10037	6.51298	9.42802	0.70770
2018	East Africa Breweries Ltd	0.10184	0.83646	7.85277	0.83486	0.69787
2018	Mumias Sugar Co. Ltd	-0.96223	0.49503	7.19688	0.02904	0.96008
2018	Unga Group Plc	0.07885	0.12525	6.99707	2.14184	0.33595
2018	Eveready East Africa Ltd	-0.26067	0.30481	5.64984	2.53246	0.56326

2018	Kenya Orchards Ltd	0.07756	0.49118	8.05905	2.11383	0.37176
2018	Flame Tree Group Holdings Ltd	0.08855	0.21093	6.26465	1.14355	0.38391
2018	Safaricom Plc	0.33020	0.25995	5.22386	0.63095	0.83599
2018	Stanlib Fahari - REIT	0.05022	0.03340	9.58576	3.74409	0.87495
2019	Eaagads Ltd	0.00281	0.10125	5.97420	6.98251	0.84836
2019	Kapchorua Tea Co. Ltd	-0.06181	0.27812	6.30817	4.51246	0.57092
2019	Kakuzi Ltd	0.11460	0.19962	6.79417	11.00308	0.62133
2019	Limuru Tea Co. Ltd	0.02012	0.10597	5.37230	8.37472	0.40758
2019	Rea Vipingo Plantations Ltd	0.07159	0.24765	6.72975	8.48596	0.48908
2019	Sasini Ltd	0.10782	0.12193	7.16656	4.25360	0.87142
2019	Williamson Tea Kenya Ltd	-0.02084	0.23629	6.91761	4.03619	0.66056
2019	Car and General (K) Ltd	0.01588	0.19104	7.06008	0.87308	0.51672
2019	Express Ltd	-0.04617	0.54912	8.67370	1.49683	0.83908
2019	Sameer Africa Plc	-0.45535	0.95485	6.18493	0.86601	0.43358
2019	Kenya Airways Ltd	-0.06636	0.74489	5.29153	0.13114	0.86886
2019	Nation Media Group	0.09376	0.50442	3.93059	1.93413	0.60832
2019	Standard Group Ltd	-0.11537	0.66129	6.62283	0.59693	0.66985
2019	TPS Eastern Africa Ltd	0.01010	0.29170	7.25495	0.66492	0.89324
2019	Scangroup Ltd	0.03838	0.43822	7.10732	1.60146	0.16351
2019	Longhorn Publishers Ltd	0.07572	0.52893	6.37000	1.18866	0.37129
2019	Nairobi Business Ventures Ltd	-0.56951	1.00000	7.78517	1.50843	0.18499
2019	Bamburi Cement Plc	0.00805	0.26878	4.68870	1.28207	0.75702

2019	Crown Paints Kenya Plc	0.05748	0.76323	6.74206	0.99922	0.34160
2019	E.A Cables Ltd	0.10056	0.66063	6.79761	0.65639	0.80012
2019	East Africa Portland Cement Ltd	0.08940	0.18396	7.56278	0.26241	0.90098
2019	Total Kenya Ltd	0.06747	0.35093	7.57478	2.15512	0.36565
2019	KenGen Ltd	0.01964	0.51432	8.60360	1.31377	0.91622
2019	Kenya Power & Lighting Co. Ltd	0.00080	0.47738	8.51588	0.38389	0.86518
2019	Umeme Ltd	0.05475	0.67207	6.40514	0.72770	0.78359
2019	Olympia Capital Holdings Ltd	0.00353	0.21088	6.21128	1.59586	0.79738
2019	Centum Investment Co. Ltd	0.00730	0.50303	8.00759	0.31682	0.85305
2019	Trans-Century Ltd	-0.30258	1.54855	7.11416	0.27822	0.67704
2019	Home Afrika Ltd	-0.20443	0.21196	6.63827	2.60478	0.09027
2019	Kurwitu Ventures Ltd	-0.01309	0.14089	5.74331	0.38036	0.98825
2019	Nairobi Securities Exchange Ltd	0.03574	0.06966	6.35071	7.85300	0.58283
2019	B.O.C Kenya Ltd	0.27898	0.32951	6.29943	1.97718	0.45755
2019	British American Tobacco Kenya Ltd	0.33538	1.05485	7.06393	1.08703	0.92225
2019	Carbacid Investment Ltd	0.07932	0.11273	6.52317	5.69405	0.76364
2019	East Africa Breweries Ltd	0.13226	0.81445	7.93985	0.87947	0.66000
2019	Unga Group Plc	0.04521	0.06658	7.08102	2.31806	0.32939
2019	Eveready East Africa Ltd	-2.55405	1.16556	5.07499	1.50185	0.45242
2019	Kenya Orchards Ltd	0.06201	0.41375	8.13355	1.97882	0.65362
2019	Flame Tree Group Holdings Ltd	0.01970	0.27245	6.35816	1.21249	0.52685

2019	Safaricom Plc	0.32467	0.25006	5.28437	1.07995	0.74045
2019	Stanlib Fahari - REIT	0.04518	0.02965	9.58866	3.53228	0.89526
2020	Eaagads Ltd	-0.07379	0.12305	5.97707	2.21409	0.88369
2020	Kapchorua Tea Co. Ltd	0.01001	0.26525	6.28825	4.83967	0.54906
2020	Kakuzi Ltd	0.09358	0.20165	6.82262	11.22281	0.60028
2020	Limuru Tea Co. Ltd	-0.06304	0.08388	5.36115	6.91638	0.40835
2020	Rea Vipingo Plantations Ltd	0.06114	0.23958	6.76574	9.02030	0.45830
2020	Sasini Ltd	0.00086	0.10459	7.16369	5.73652	0.86396
2020	Williamson Tea Kenya Ltd	0.03499	0.44998	6.59340	4.67816	0.69402
2020	Car and General (K) Ltd	0.02303	0.21640	7.07567	0.86546	0.58399
2020	Express Ltd	-0.02284	0.20252	9.12784	1.53439	0.94908
2020	Sameer Africa Plc	-0.18507	0.99491	6.02001	1.47944	0.69118
2020	Kenya Airways Ltd	-0.21124	0.87656	5.23417	0.31845	0.84152
2020	Nation Media Group	0.00570	0.46216	3.92482	2.04023	0.57823
2020	Standard Group Ltd	-0.07439	0.81579	6.60797	0.50722	0.67940
2020	TPS Eastern Africa Ltd	-0.06991	0.33101	7.23828	0.66565	0.91413
2020	Scangroup Ltd	0.04379	0.39744	6.94160	2.32566	0.11385
2020	Longhorn Publishers Ltd	-0.09219	0.55533	6.38920	0.95854	0.46769
2020	Nairobi Business Ventures Ltd	-0.33476	0.83552	8.07129	0.20351	0.00019
2020	Bamburi Cement Plc	0.01674	0.35753	4.63406	1.17744	0.85662
2020	Crown Paints Kenya Plc	0.10899	0.57352	6.74234	1.08902	0.45232
2020	E.A Cables Ltd	-0.05573	0.76526	6.77323	0.72082	0.81458

2020	East Africa Portland Cement Ltd	0.07865	0.21454	7.54626	0.14863	0.93137
2020	Total Kenya Ltd	0.07669	0.37516	7.63334	2.05332	0.31756
2020	KenGen Ltd	0.04450	0.48824	8.61587	1.99566	0.91757
2020	Kenya Power & Lighting Co. Ltd	-0.00289	0.47006	8.51224	0.36286	0.86895
2020	Umeme Ltd	0.01617	0.69861	6.42570	0.54446	0.80066
2020	Olympia Capital Holdings Ltd	0.00610	0.22909	6.23195	1.68686	0.80124
2020	Centum Investment Co. Ltd	0.04544	0.51628	8.00802	5.01849	0.96524
2020	Trans-Century Ltd	-0.11802	1.65426	7.13637	0.33181	0.61804
2020	Home Afrika Ltd	-0.07659	0.25020	6.64764	0.59461	0.10003
2020	Kurwitu Ventures Ltd	-0.00356	0.14230	5.74231	0.27297	0.99160
2020	Nairobi Securities Exchange Ltd	0.07259	0.05315	6.36420	13.52978	0.50599
2020	B.O.C Kenya Ltd	0.04866	0.37181	6.31999	2.51370	0.42980
2020	British American Tobacco Kenya Ltd	0.41076	0.73328	7.12815	4.28544	0.81253
2020	Carbacid Investment Ltd	0.09425	0.10908	6.53713	5.76301	0.74655
2020	East Africa Breweries Ltd	0.07919	0.84217	7.94772	0.83649	0.70710
2020	Unga Group Plc	0.00549	0.04919	7.08102	1.57678	0.34337
2020	Eveready East Africa Ltd	-0.34319	0.79615	5.30338	1.03964	0.21452
2020	Kenya Orchards Ltd	-0.09935	0.44573	8.10122	1.92875	0.23610
2020	Flame Tree Group Holdings Ltd	0.03020	0.29400	6.39603	1.10993	0.53522
2020	Safaricom Plc	0.34545	0.32897	5.32884	0.86410	0.77103
2020	Stanlib Fahari - REIT	0.03811	0.02781	9.58925	3.59068	0.90014

2020	New Gold Issuer (RP)M Ltd	-0.08133	0.23333	3.35218	2.63522	0.81244
2021	Eaagads Ltd	0.00157	0.09566	6.04786	5.58010	0.10139
2021	Kapchorua Tea Co. Ltd	0.06610	0.28604	6.31842	4.68770	0.58129
2021	Kakuzi Ltd	0.04837	0.20521	6.82023	10.67619	0.59440
2021	Limuru Tea Co. Ltd	-0.09312	0.07904	5.31911	11.70054	0.45392
2021	Rea Vipingo Plantations Ltd	0.06664	0.28826	6.74242	5.39893	0.51124
2021	Sasini Ltd	0.03785	0.11218	7.18020	6.38040	0.83244
2021	Williamson Tea Kenya Ltd	-0.03920	0.56020	6.57151	3.76853	0.73382
2021	Car and General (K) Ltd	0.06141	0.66396	7.15980	0.93450	0.52360
2021	Express Ltd	-0.06594	0.20985	9.09982	1.31314	0.94934
2021	Sameer Africa Plc	0.19339	0.83842	6.05080	1.18848	0.69512
2021	Kenya Airways Ltd	-0.10207	1.01525	5.19188	0.31724	0.83488
2021	Nation Media Group	0.05769	0.53383	3.93185	1.97942	0.52956
2021	Standard Group Ltd	-0.01680	0.67410	6.63892	0.45994	0.65388
2021	TPS Eastern Africa Ltd	-0.03631	0.35541	7.24128	0.80484	0.88355
2021	Scangroup Ltd	-0.00402	0.44939	6.97519	2.07420	0.08945
2021	Longhorn Publishers Ltd	0.00260	0.74253	6.45905	0.76927	0.42879
2021	Nairobi Business Ventures Ltd	0.18522	0.16261	8.25003	1.84258	0.70039
2021	Bamburi Cement Plc	0.03071	0.36666	4.65257	1.87252	0.82300
2021	Crown Paints Kenya Plc	0.11550	0.49646	6.86829	1.37029	0.36842
2021	E.A Cables Ltd	-0.04475	0.80307	6.74664	0.55996	0.82858
2021	East Africa Portland Cement Ltd	0.06521	0.10733	7.53959	0.18537	0.92946

2021	Total Kenya Ltd	0.05824	0.39165	7.67238	2.01979	0.30514
2021	KenGen Ltd	0.00279	0.50589	8.62906	2.14846	0.89706
2021	Kenya Power & Lighting Co. Ltd	0.00448	0.47841	8.52144	0.42747	0.85060
2021	Umeme Ltd	0.05549	0.64378	6.39921	0.51263	0.81831
2021	Olympia Capital Holdings Ltd	-0.00076	0.17261	6.16694	0.20371	0.79629
2021	Centum Investment Co. Ltd	-0.01329	0.57007	8.03915	1.69163	0.98758
2021	Trans-Century Ltd	-0.07353	1.48960	7.16139	0.35639	0.62759
2021	Home Afrika Ltd	-0.06204	0.29106	6.65682	0.56926	0.10133
2021	Kurwitu Ventures Ltd	-0.00356	0.14224	5.74251	0.27297	0.99114
2021	Nairobi Securities Exchange Ltd	0.05985	0.05828	6.34525	10.06735	0.48190
2021	B.O.C Kenya Ltd	0.05425	0.38686	6.30040	2.88454	0.42143
2021	British American Tobacco Kenya Ltd	0.38333	0.54067	7.22822	2.56372	0.72755
2021	Carbacid Investment Ltd	0.11311	0.11729	6.56465	4.98457	0.72926
2021	East Africa Breweries Ltd	0.06954	0.85165	8.00051	0.85870	0.65947
2021	Unga Group Plc	0.02921	0.09829	7.00211	2.25939	0.36994
2021	Eveready East Africa Ltd	-0.21792	0.96043	5.20192	0.76443	0.26917
2021	Kenya Orchards Ltd	0.02907	0.44326	8.10363	2.08090	0.23022
2021	Flame Tree Group Holdings Ltd	0.03567	0.32269	6.45861	1.04719	0.50844
2021	Safaricom Plc	0.29778	0.40322	5.36291	0.74099	0.75758
2021	Stanlib Fahari - REIT	-0.03339	0.04561	9.56967	2.60601	0.88114

Source: Individual company websites