

**THE EFFECT OF DEBT MANAGEMENT ON THE
PERFORMANCE OF FIRMS LISTED ON THE NAIROBI
SECURITIES EXCHANGE**

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DECLARATION

I declare that this research project is my original work and has not been submitted for an award in any University or institution of higher learning.

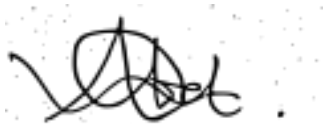
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LIST OF ABBREVIATIONS AND ACRONYMS

CBK	Central Bank of Kenya
CMA	Capital Markets Authority
CEO	Chief Executive Officer
CMA	Capital Markets Authority
NAPS	Net Assets Per Share
NSE	Nairobi Securities Exchange
NYSE	New York Stock Exchange
ROA	Return on Assets
ROE	Return on Equity
ROS	Return on Sales
SPSS	Statistical Package for Social Sciences

ABSTRACT

The effect of capital structure and its contribution towards financial performance has attracted the interest of academic researchers. However, little focus has been given to debt management as an influencer of financial performance in the corporate world. Extreme debt levels have resulted in some of the listed firms being placed under receivership. Previous research work on the influence of debt management on financial performance of firms have yielded varied and sometimes conflicting results. While Ngobo and Capiez (2004) and Goddard (2005) demonstrated a adverse effect of debt on financial performance, Berger and Bonaccorsi (2006) indicated a positive impact. This study was aimed at determining the impact of debt management on the financial performance of organizations listed on the Nairobi Securities Exchange. The study focused its attention on the 54 firms listed on the Nairobi Securities Exchange excluding the nine (9) listed companies under the commercial and services segment. The research used descriptive and inferential statistical in evaluating the data attributes, constructing a correlation matrix between the dependent and independent factors, and deciphering the outcomes utilizing the Statistical Package for Social Sciences (SPSS) version 21. The investigation found that debt proportion and size of firm have a positive correlation to financial performance while the current ratio and the solvency ratio has a negative association with the financial performance. The correlation coefficient of debt ratio was 0.739 which signified a strong positive connection between debt management and financial performance of the listed firms. The correlation coefficient of the current ratio and solvency ratio of -0.339 and -0.471 respectively showed a weak negative relationship between liquidity and solvency and financial performance of the listed firms.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Loans and equity are the main sources of external financial capital in corporate financial management. Nevertheless, there consistently arises a dilemma as to the appropriate debt to equity ratio to leverage on in business. In fact, the way in which firms particularly settle on a given level of borrowing versus equity within the firms' asset base is still a mystery (Nyamita, 2014).

A number of factors, both internal and external, influence the financial performance of corporate firms. Accordingly, the significance of financing and investing options in influencing financial performance of entities is clear in coping with demand for financing strategies to spur development and attainment of a firm's goals (Salazar, Soto & Mosqueda, 2012). According to Memba and Nyanumba (2013), financing choices lead to specific resource composition whereas non-optimized investing options often culminate to business crash.

The trade-off theory submitted by Myers (1977) reasons that the use of debt financing is largely advantageous because of the related tax-savings cash flows. The pecking order theory, on the other hand provides for hierarchical order of preference for different sources of capital available to the firm (Myers & Majluf, 1984). The agency theory, proposed by Adams (1994), argues that agents should act in the interest of their employers (shareholders). However, the agents have been alleged put their own interests first instead of prioritizing the shareholders interests. Accordingly, the level of debt impacts agency cost in several ways; reduction in free cash flow available to managers,

increase in monitoring of managers by debt holders and increase in the threat of bankruptcy which may lead to loss of benefits by managers in case of bankruptcy (Cudiamat & Siy, 2017).

According to Anyanzwa (2015), the overall amount of finance raised from equity holders through rights issue by corporate entities listed in the NSE, the largest securities exchange in East Africa, for the period between year 2004 and year 2014 was \$988 million. Over the foregoing decades, there has been disturbing effects of internal monetary crisis experienced by publicly quoted companies in Kenya's capital market. Several firms degraded resulting into receivership directive, others went through financial restructuring or were delisted from the NSE all together. Examples of such organizations comprises of: KPCU in 2003, East African Packaging Limited in 2003, Uchumi Super Markets Limited in 2006, Dunlop Kenya Limited and Regent Undervalued Assets Limited in 2001, Lonhro EA Limited Ltd in 2001, Theta Group in 2001 among others (CMA statistical bulletins, 2003 – 2009). A number of the mentioned companies reported large borrowing portfolios (debt financing) in their records.

1.1.1 Debt Management

The main source of external finance is debt financing as equated to external funds from equity (Baltacı & Ayaydın 2014). Debts refer to financial liabilities by person or persons obtaining credit or loan to the lenders. Most of the credit facilities offered by lenders include monetary facilities and economic privileges (Edwards, 2004). These are optional or substitute means of obtaining extra finances to cater for a company's or business operational requirements.

Debt management entails monitoring and managing risk exposure resulting from acquired financial liabilities. According to Rajan and Zingales (2012), debt management is an agreed plan between a debtor and a creditor that addresses the terms of an outstanding debt. Reinhart and Reinhart (2011) revealed that the procedure of decreasing private liabilities in volatile economic conditions takes place in an estimated period of six to eight years. Proper management of debt facility includes strategies employed to ensure effective and efficient debt repayments which may include restructuring of the loan disbursed. Efficient management of debt is the scope of institutional and technical measures in shaping the liabilities of a country so that the debt service burden is kept within a maintainable level (Islam & Nishiyama, 2016).

Dube (2013) opined that the prime purpose of strategies to effectively manage financial leverage portfolios involves influencing the proportions a firm incurs on expenses or the interest payments by varying the interest structure or value demanded in the credit facility. To decide between the various sources of debt financing available, firms consider the available country stocks markets and the amount in arrears required by the company (Islam & Nishiyama, 2016). While investigating the listed and non-quoted firms in the developed world, Rajan and Zingales (2012) eluded that cumulatively, borrowing models compare throughout various nations. Miller (2012) added that matching of the insolvency expenses alongside the interest charged on credit leads to sprouting of finest resources composition. As such, choices regarding the amount of liability obtained bear significant contribution to the efficiency of corporate companies.

1.1.2 Financial Performance

Economic returns and achieving long-term goals of a firm are of key interest to each corporate manager or owner (Parker, 2000). Financial performance refers to a quantity or gauge of the efficient utilization of a firm assets and resources emanating from their principal operations to make income (Mesquita & Lara, 2003). As per Syafri (2012), financial performance alludes to the entity's economic returns during the defined trading period. The crucial means of scrutinizing monetary execution of firms include evaluating the financial performance of the organization with respect to return on equity (ROE) and return on assets (ROA) Syafri (2012). ROE is a ratio that relates to the amount of income a corporate firm earns in relation to the aggregate of investor equity in the venture and determined on the announcement about the economic situation. This ratio gauges the quantity of owners' income in relation to their equity engaged in the company operations (Fredric, 2014).

Financial performance under this study is proxied using the ROA, which is the universally acceptable measure of return by investors in a corporate institution (Rajan and Zingales, 2012). The return on assets assesses the income of the entire organizational assets. ROE is usually adopted as the aggregate indicator of productivity, and investors would prefer higher values which indicate higher financial benefits to the shareholders. ROA is a key relative calculation of the income and revenues of a firm. It is a proportion of profit to its overall resources (Khrawish, 2011). ROA establishes the capacity of a firm's administration to create revenue by exploiting the business assets within their operations.

1.1.3 Debt Management and Financial Performance

According to Ozkan (2010), debt-holders would be apportioned a proportion of the profit of an entity as the prospect of defaulting is decreased by the venture projects. Batchimeg (2017) and Berger et al., (2005) argue that reduced period of credits will increase a company's profitability significantly. Nima, Mohammad, Saeed, & Zeinab (2012) assessed the connection between capital structure and the overall performance of Tehran stock trade businesses for the years between 2006 and 2011. Their research focused on firm performance aspects such as return on assets, gross profit margin, and capital base structure. They observed a strong connection between the dependent and independent factors, except for long term debts and gross income margin.

A research by Lipunga (2014) aimed at appraising the determinants of efficiency of listed commercial banks in non-industrialized nations, with an attention on Malawi for the period 2009-2012 uncovered that the size of the bank, liquidity and obligations management proficiency have a statistically substantial impact on ROA which reflected the financial performance of the banks.

Ebaid's (2009) research revealed that capital structure preference choice is not susceptible to influence on the financial performance of Cairo quoted firms between years 1997 and 2005. Dube (2013) in a research conducted to establishing the impact of loans financing on the financial performance of small and medium business firms within Zimbabwe, found evidence of the financial performance of the firms being linked with debt levels and debt management strategies. Organizations opt for debt financing in the expectation that they may increase their value through growing their turnover and consequently increasing their income.

1.1.4 Firms Listed on the Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE) came into being by a purposeful affiliation of stockbrokers during the year 1954 (NSE, 2016). During the last couple of years, the securities exchange has undergone various adjustments. They include automating the trading in September 2006 as well as actualizing the ability for stockbrokers to trade on the NSE virtually from the comfort of their workplaces, in the year 2007 (Wakaba, 2014; NSE, 2016).

According to Capital Markets Authority (2015), NSE is the sole main open capital marketplace in Kenya. It is different from the advanced markets in various characteristics regarding firm sizes as well as board features and length, asset structure, profitability, corporate governance and firm size requirements making NSE an exceptional case to examine in this research. Some of the NSE quoted corporations have in the past mishandled debt financing adversely affecting their performance (Wakaba, 2014).

The demanding nature of listed companies generates the need to acquire debts and forge a sustainable way of managing them. Since NSE listed firms do not immediately adjust their capital structures after becoming highly geared because of the transaction costs involved, a negative relationship is sometime revealed between debt levels and financial performance. This has led to woes affecting firms like Kenya Airways Limited, Uchumi Super Markets Limited, TransCentury Limited and Mumias Sugar Company.

1.2 Research Problem

Kenya's economic performance can be proxied using the financial performance of the firms listed in the Nairobi Securities Exchange (Chebii, Kipchumba & Wasike, 2011),

since the firms represent nearly all the sectors of the economy. Some of the NSE listed firms have had challenges of mismanagement leading to high levels of debt which they are unable to pay resulting in their winding up (Chebii, Kipchumba & Wasike, 2011). Significant plans to restore the struggling and shutting down organizations have centered on economic restructuring. The governing authorities as well as privately owned corporations have invested heavily in developing a conducive environment to support commercial enterprises in Kenya (World Bank, 2014). The various issues faced by most organizations placed in statutory management have been in a large part associated with financing (Chebii, Kipchumba & Wasike, 2011). At the beginning of financial distress, managers and directors participate in events that are in favor of creditors to convince them to lessen the pressure on the firm and subsequently support the organization to resolve its financial predicament. NSE listed firms (such as Kenya Airways and Mumias Sugar Company) have been scrutinized over the last few years, with debt mismanagement being one of the issues cited

Several past studies on the influence of loans facilities management strategies on the fiscal return/performance of organizations have yielded varied and sometimes conflicting results (Kebewar, 2012). While Ngobo and Capiiez (2004) and Goddard (2005) showed an adverse effect of debt on financial performance, Berger and Bonaccorsi (2006) showed a positive impact. Mesquita and Lara (2003) and Weill (2008), similarly found results that showed that debt management has an incremental influence on the financial performance of firms. Other results by Berger and Bonaccorsi (2006), Margaritis and Psillaki (2007) and Kebewar (2012) revealed a nonlinear relationship between loans facilities/debt and fiscal performance.

Koech (2013) researched the influence of capital structure on profits of companies quoted at Nairobi bourse and observed that the average level of debt to equity ratio debt is five.

Debt to equity ratios are typically safe up to 2 implying that listed financial companies in Kenya rely more on debt than equity capital. The average amount of debt to equity shows 86.9% of the total capital of listed banks in Kenya comprises of borrowed finances. Ntoiti (2013) researching on factors leading to the financial distress of a select 175 corporate firms within the service industry in Kenya, discovered that the reasons for financial misery comprises of financial overseeing practices, human assets management practices, organization administration practices, IT and government regulations.

Despite the large amounts of money owed and the distressing outcomes of debt control on the success of the NSE quoted companies, existing research offer incoherent findings connecting to the influences of loans facilities management on fiscal returns of firms. In addition, there exist no -consensus on how debt management affects the financial success of listed companies in developing countries. This study, therefore, endeavors to answer the question: What are the effects of debt management on the financial performance of firms listed in the NSE?

1.3 Objective of the Study

To determine the effects of debt management on the financial performance of firms listed in the NSE.

1.4 Value of the Study

The study would be of help to firms listed in the NSE as well as other organizations in Kenya because it would make them comprehend the effects of debt management on the financial performance of firms in Kenya.

The study would assist policy makers in developing appropriate policies with respect to accessibility to debt capital by firms as they would have a better understanding of how debt financing as an element of capital structure affects the fiscal returns of organizations.

The study would also contribute to existing knowledge and would add to the literature available in the area of study. The outcomes of this study would be useful to researchers, scholars, students and academics, who would use the findings of the research as a basis for discussion on effects of debt management on performance of firms and as a source of reference material on other related topics.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature available on the effects of debt management on the fiscal returns of companies with the definitive aim of establishing a research gap. The chapter also reviews empirical researches done by other scholars touching on debt management and firm performance. Accordingly, the chapter is categorized into theoretical review, determinants of firm performance, review of empirical studies, conceptual framework, and summary of literature review.

2.2 Theoretical Review

This section renders and expounds on the theories on which the investigation is based. Speculations are utilized by researchers when performing research studies to shape the basis for the boundaries or restrictions of a study.

2.2.1 Trade-Off Theory

This theory is founded on the principle that an organization chooses between equity and loans finance by purposing to achieve an equilibrium of the advantages/savings and the related expenses in both scenarios. This theory is accredited to Kraus and Litzenberger (1973) who inculcated the high operating costs of insolvency and the tax credits/saving rewards of debt in influencing the most optimum combination of capital structure (Hackbarth et al., 2007). The trade-off theory posits that organizations' fund their activities partially with debt and partially with equity.

In keeping with the idea, when the amount of loans(external funding) rises, the result is a decrease in the overall marginal benefits, whereas the marginal price of debt will

increase. Fundamentally, an organization seeking to maximize its share price will centralize its effort on trade-off whilst figuring out the balance of equity and debt to adopt in order to fund their operations (Frank & Goyal, 2005). Trade-off theory further argues that a positive relationship exists between company age, asset base, growth pace and capital base structure. It argues that big organizations have lower threats of insolvency given their relatively low predicted financial disaster expenses, lesser corporation charges, much less risky cash flows, easier access to the debt market and the need for extra liability to benefit from the tax shields (Alkhatib, 2012).

Still, in alignment with the trade-off theory of capital structure, optimal debt level increases the returns to equity since the additional cost of debt is offset with the extra income generated by employing the additional debt capital (Frank & Goyal, 2009). Additional debt capital allows firms to take tax advantages in the income statement which reduces the tax obligations and thus is a reward to the equity holders. Kim (2012) indicated that financial leverage is favorable whilst the uses to which debt can be employed to generates more returns than the interest cost related to the debt. Since the capital structure of an organization is directly related to its debt management and hence financial performance, trade theory is observed to be an influential hypothesis that explains the deviations in financial performance with respect to its solvency ratio and capital structure. Given that the level of accounts payable and accounts receivable may be influenced by capital consideration, it seems appropriate to use trade-off theory in measuring the relationship between solvency ratio and financial performance.

2.2.2 Pecking order theory

The hierarchy hypothesis was first postulated by Donaldson in 1961 and later amended and promoted by Myers and Majluf (1984). The hypothesis conjectures that the expense of financing grows with information asymmetry in the market. As per De Matos (2001), the pecking order model maintained by the fact that loan(s) obligation and equity have diverse information sensitivities. This recommends distinctive adverse determination costs, with these expenses being higher when equity capital is employed compared to debt. The model likewise gives the reasoning with regards to why a higher level of outer financing comes from debt (Mayer, 2001). As indicated by Myers (1984), funding begins from three sources in particular; internal reserves, debt and new equity and organizations prioritize their financing sources the very way that is first preferring interior financing, and afterward debt, and at last raising equity when all the other options are exhausted (Frank, Goyal & Shen, 2020).

Issuing new shares to new potential shareholders as a form of raising finance results into introducing new owners into the organization, which consequently means that the profit earned will be shared amongst the increased shareholders. The pecking order concept postulates that there prevails an inverse association between debt ratios and productivity. For the reason, organizations with significant income have more profits which they can use in cases of emergencies instead of resorting to debt (Myers, 1984). The pecking order theory, like the other theories, has been critiqued by members of academia, with some supporting it while others finding it deficient. Rajan and Zingales (1995) and Gu and Ku (1997) presented evidence corroborating the Pecking order model by showing a significant negative correlation between profitability and leverage.

As stated by the Pecking Order Model, when internal finances are not sufficient, resulting into seeking external sources of financing, debt is more preferred to equity (Mayer, 2001). The theory therefore has suggested an order in which firms follow in financing their investment starting with internal funds, debt and finally equity. De Matos (2001) indicated that the deficit in internal financing can be used to identify the financing gap in internal finances that may trigger the use debt. The theory can therefore be employed in this study to explain how listed firms can determine the composition of their debts and debt structure in conformance with their respective fiscal policies (Kayo & Limura, 2010).

2.2.3 Capital Structure Irrelevance Hypothesis

Modigliani and Miller (1958) hypothesized that in conditions of perfect capital market; where taxes and transaction costs are non-existent, firms operate in a homogenous risk environment, firms have 100% dividend pay-out and investors can take up loans and lend at the same interest rates as the corporates, capital structure does not affect corporate financial distress. They argued that it is the combination of business risk (cost of capital) and earnings capacity (return on assets) but not how firms are financed that determines their financial distress (Muhammad, Iqbal, Muhammad, Muneer, & Jahanzeb, & Khan, 2012). The implication is that companies that operate within the same business environment ordinarily possess similar risk structure and therefore have identical earnings potential (Ahmeti & Prenaj, 2015). The theorists further demonstrated that should such firms exhibit dissimilar market values; investors will continuously engage in arbitrage activities by selling their securities in the overvalued firm and buying securities in undervalued firm. This will effectively increase demand for the securities in the

undervalued firm and reduce demand of securities in the overvalued firm hence restoring the market valuation equilibrium. This theory has however faced a lot of criticisms that mainly hinge on its perfect market assumptions. Stiglitz (1969) proved that this assumption is not realistic since the organizations don't work in homogenous business climate. In his review, the Stiglitz criticized the assumption that individuals can acquire loans at similar rate as corporations.

Stiglitz (1969) argued that the practice has demonstrated that there are limitations toward the market rates for individuals when accessing loans, contrasted with firms acquiring the same facilities. In this regard, he held that the assumption of equity leverage is not sustainable. This model is pertinent to the research since it accommodates a non-one-sided point of view on the connection between financial leverage and fiscal returns factors utilized by the research. By providing that financing choices are superfluous to the firm, the hypothesis offers an impartial platform to undertake an disective empirical analysis of this connection within the targeted populace (Muhammad, Iqbal, Muhammad, Muneer, & Jahanzeb, & Khan, 2012).

As per Bhunia (2011), the organization's market value is determined wholly by its riskiness of the cash flow and the extent to which the capital assets generate a return. The debt-equity ratio hence illustrate how the sequence of future cash movements will be amongst the shareholders and debt holders. The firm's value will correlate with its debt levels owing to the debt interest, an allowable expense, therefore the presence of an extra advantage to the levered firm (Pandey, 2007). This theory is thus very crucial in determining the effect of liquidity, financial leverage and debt on financial performance of organizations (Muhammad, Iqbal, Muhammad, Muneer, & Jahanzeb, & Khan, 2012).

2.3 Determinants of Financial Performance

Investors assess the financial performance of companies and attempt to determine firms that are optimally leveraged to invest in. Highly leveraged firms are believed to be failing the stress test which may result in hostile takeovers or liquidation by creditors. The management of firms aims at approving efficient funding choices that do not strain the companies' debt repayment structure (Acar, 2003). The contributors to the financial performance of firms are both internal and external factors linked to the macro-economic variables that affect the corporation (Aydeniz, 2009).

In choosing the appropriate leverage structure, the management must ensure that the financial returns of the additional capital outweigh the cost of the added capital. Corporates employ debt capital to ensure a trade-off between equity capital which is a costlier financing arrangement, and debt financing which is a cheaper alternative (Khadka, 2006). Margraves and Psillaki (2010) determined that additional debt up to some optimal level has an incremental impact on the financial performance of a company. Mohammad and Jaafer (2012) studied 39 firms listed on the Amman stock exchange primarily based corporations and examined methodically the role of debt on profitability. He presented empirical results showing that the appropriate debt management practices influenced positively the financial performance of the listed firms.

Kebewar (2013) examined the influence of debt on profitability of 2,325 French companies over the 8-year duration in the interval period of 1999 and 2006. The study presented results of an adverse effect of debt capital on the profitability of the corporate entities.

2.3.1 Firm Liquidity

As Liargovas and Skandalis (2008) posits, companies can utilize liquid resources to fund their operations activities and ventures while outside funds are inaccessible. High liquidity helps an organization to manage contingencies and meet its commitments during the times of lower income generation. However, investment in highly liquid assets is at the opportunity costs of higher returns that could be earned if the firm had invested in long-term assets (Bhunja, 2011). Management thus, has to make a balanced choice in determining a trade-off between liquidity and profitability. Almajali, Alamro and Al-Soub Almajali et al., (2012) determined that company liquidity had a big effect on financial overall performance of organizations. Almajali et al., (2012) recommended that the organizations must increase the current assets and reduce current liabilities due to the strong positive rconnection between liquidity and financial performance. According to Rizwan (2016), firms struggling with liquidity have a poor outlook in the market since they take long to repay their short-term obligations and usually have lower earnings relative to the assets they own. The negative relationship between profitability and liquidity was established by Dong (2010) who argued that the slow pace in converting liquid assets to income reduces the profitability of firms (Pradhan & Shrestha, 2016).

2.3.2 Financial Leverage

The proportion of debt to equity has an impact on the investors' returns and solvency. This influences the cost of additional capital and the market value of the organization (Pandey, 2007). Padron and Santana (2005) assert that if a company takes more credit from its lenders, then the company has to incur extra costs of debt to the creditor which is

the interest costs which results in much less net income for the company and subsequently for the shareholders.

The management of a firm needs to determine an appropriate mix of equity and debt that will allow a company to continue in its profitability trend. If a company is not able to generate income over and above the interest costs on the debt, the equity holders take a loss. The greater the ratio of capital supplied by way of debt to the capital furnished via equity, the better the financial performance up to the optimum level where when exceeded the company begins to incur losses.

2.3.3 Solvency Ratio

The solvency ratio is used by key stakeholders like bankers, investors, suppliers, creditors, financial institutions, and governments in determining whether to continue doing business with a company (Khidmat & Rehman 2014). Solvency affects the organizations' capability to acquire loans, financing, and funding capital. Zhara, Ireland, Gutierrez and Hitt (2000) opined that a major factor resulting in the privatization of public corporations is the high solvency levels and inefficient management practices. Privatizations occur to cushion the taxpayer from the costs of pumping in more cash flows to struggling organizations.

High solvency ratios have been determined to have negative significant impact to ROA and ROE. As firms acquire additional debt, the costs of repayment rises which lowers their credit scores and thus the creditors would demand a further premium for their outstanding credit. High solvency ratios gives firms a poor outlook in the market that can scare away potential investors and partners which would significantly erode the earnings

of a firm. It is also derived that liquidity has high positive impact on returns on assets, which implies that if the liquidity ratio is improved, ROA may also be accelerated and vice versa (Qasim, Ramiz & Rehman, 2011).

The measure for profitability necessitates that the income attained from the organization enterprise endeavors surpasses the undertaking's costs. While an organization might be solvent yet not productive, it can't generate profits if it is not solvent. This implies that, in spite of the fact that solvency is an essential element for profitability, expanded profit generation improves solvency and eventually financial performance. Discoveries by method of Khidmat and Rehman (2014) affirmed that the solvency proportion negatively affects the general financial performance of organizations (Kyule, 2015).

2.3.4 Size of the Firm

According to Rule and Chen (2009), the size of an organization is a principal aspect in deciding the income earning of an organization as a result of the concept of economies of scale. It implies that as compared to smaller companies, large firms are able to utilize economies of scale to adopt cost efficient measures while delivering quality products and services at a premium thus, a positive correlation between company size and profit is predicted. Al-Sakran (2001) posits that smaller companies tend to use equity to finance their capital whereas larger companies use debt which is a cheaper financing model. The large companies obtain advantage of lower interest costs on borrowing and discount rates as a result of their large borrowings Pervan & Visic, 2012). Serrasqueiro and Nunes (2008) found a positive connection between performance and size of companies.

There is a limit on however huge a company will grow to attain the economies of scale. This implies that at some level beyond the optimum threshold, the financial performance of an organization will start declining as diseconomies of scale set in.

2.4 Empirical Studies

2.4.1 Global Studies

Addaney, Awuah and Afriyie (2016) assessed the effects of debt management on the overall productivity of small-scale establishments of Kumasi Metropolis in Ghana. They utilized a case study design wherein they interviewed one hundred and twenty SMEs from the population of 26,989 SMEs registered in Kumasi town in 2014. The data collected was organized and analyzed using descriptive statistics and linear modeling of the variables. The study indicated that small-scale businesses lacked expertise in debt management resulting in lower returns for the entities. The study similarly reported that the most important causes of debt amongst small scale firms were scarcity of professional advice on price margins and the appropriate business model, lack of information on the nature of enterprise to start and poor structures of recording financial information. The study focused on the relationship between debt management and financial performance of small organizations while the current study focuses on the same with respect to NSE listed corporations.

Addaney, Awuah & Afriyie (2016) evaluated the effects of debt management practices on selected 120 small enterprises in Ghana. The study employed a qualitative descriptive design where the researcher interviewed the respondents on the key sources and purpose of debt and how the debt impacted their financial performance. The results showed that

high debt levels and poor debt management practices resulted in negative financial performance of the small scale businesses. This study employed a qualitative approach while the current study employed quantitative approach on the NSE listed firms.

Pouraghajan and Malekian (2012) undertook a study on the effect of capital structure on overall financial performance of entities listed in the Tehran securities exchange. They collected data from four hundred firms for the five-year period between 2006 to 2010. Factors affecting return on equity ratio (ROE) return on assets (ROA) had been utilized to calibrate economic overall performance of organizations while debt ratio was the proxy for capital structure. They presented results showing an adverse correlation between the debt ratio and ROA. They also reported that lowering debt ratio results in better financial performance of the firms. The current study aims to ascertain or negate the findings of Pouraghajan and Malekian's study, however, within the context of the NSE listed companies.

Athar, Irfan, and Naveed (2012) researched the impact of debt capital on firms' financial performance in Pakistan. Their study investigated the relationship that the variable of debt ratio has on the valuation of the companies calculated by the market to book value ratio. Simple liner regression was used to correlate the debt ratios and market to book value ratio of 53 firms in the eight-year period 1999 to 2008 selected from the Karachi stock exchange one hundred index. The changes in the valuation of the companies of the KSE 100 was assessed while all the financial services firms like banks, insurance organizations, investment organizations and agencies were excluded from the population. The investigation found that a substantial positive connection existed between debt ratio and market to book value ratios. From the results of the research, debt ratio has a

significant effect on the valuation of organizations calculated by the market to book ratio. The current study, however, focuses on measuring the effect of debt management on financial performance measured by the return on assets ratio in the Kenyan context and more particularly with respect to the NSE listed firms.

2.4.2 Local Studies

Muchai (2016) evaluated the effect of company leverage on profitability of NSE firms listed under manufacturing and allied businesses. The study employed a descriptive non-experimental research design associating the debt ratio to the ROA and ROE for the 7 organizations listed under the manufacturing and allied for the 5-years period between 2010 to 2014. Muchai found that conclusively leverage has a negative statistically significant impact on profitability with DR coefficients of -0.989 (0.000) and -2.668 (0.000), and DER coefficients of -0.152 (0.000) and -0.471 (0.000) for both ROA and ROE models, respectively. The outcome of the study also indicated leverage in the short-term had a negative association with financial performance with CDR coefficients of -0.689 (0.000) and -1.614 (0.001) for ROA and ROE models respectively. The results, however, showed that loans acquired for a long-term duration has a negative but not statistically significant impact on productivity with CPR coefficients of -0.527 (0.243) and -1.832 (0.172) as calculated by using both ROA and ROE correspondingly. Their research focused on corporate leverage which is one of the variables considered in this study.

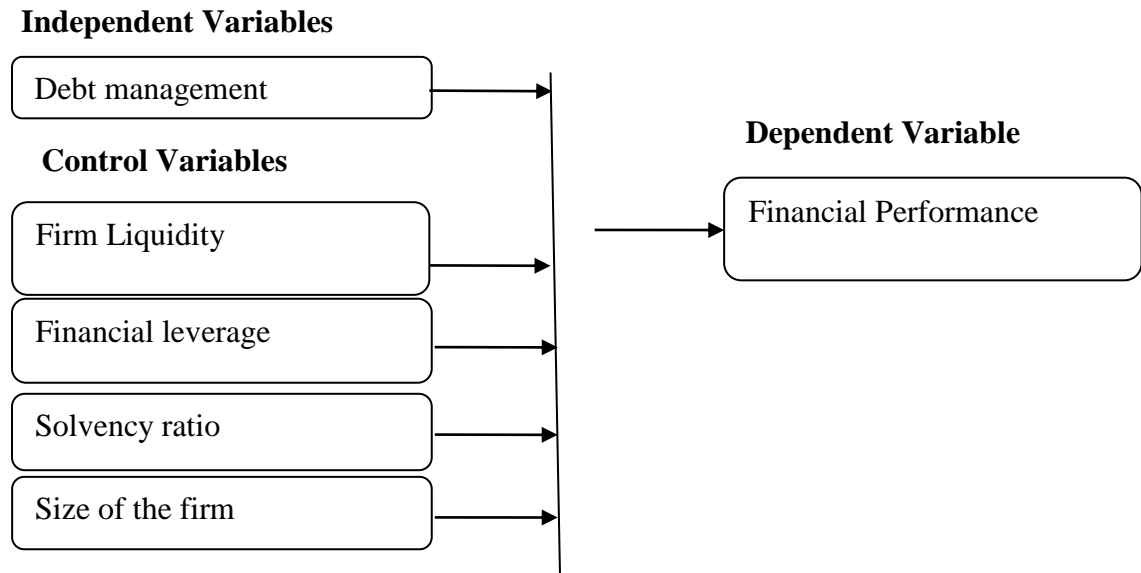
Makanga (2015) investigated the impact of debt financing on the economic performance of entities listed in the Nairobi Securities Exchange using a quantitative research design. The populace under study was all the firms listed in the NSE as at 31st December 2014

except for financial institutions who are highly regulated and that their debt levels would be as per the laws and regulations. The data was analyzed using linear regression models through the use of SPSS to evaluate any major relationship between the debt structure and the financial performance of a firm. The investigation found that short-term loans and long-term loans were negatively correlated to the financial returns accruing to a firm. There was a weak adverse correlation between ROA and total debt with a correlation of -0.337. This study differs from the current study as it employs more variables to determine the relationship between debt management and financial performance of firms. These studies are well based in the Kenyan context and are also listed in the NSE just like in the current study.

2.5 Conceptual Framework

The conceptual framework presents the expected theoretical relationship between the independent variables and financial performance as measured through return on assets of the listed entities. The independent variables are firm liquidity, financial leverage, solvency ratio and size of the firm while the dependent variable is financial performance. These elements form the undernoted diagram.

Figure 2.1: Conceptual Framework



Source: Researcher, 2020

2.6 Summary of Literature Review

There has been significant research on debt financing and its significance in the financial performance of the listed corporate entities. The results have been varied and conflicting.

This study aims at examining the impact of debt management on the financial performance of firms listed firms in the NSE.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter illustrates the methodology that was followed in conducting the study. It explains the research design adopted, the target population, the data collection method used and how the data was analyzed.

3.2 Research Design

This research implemented a descriptive research design. Descriptive studies depict attributes related with the subject populace. Descriptive research designs are relevant in describing and explaining variables of interest such as financial performance, liquidity, leverage, solvency ratio and firm size. The design enabled the researcher to describe the relationship between debt management and financial performance within a certain period and develop recommendations for further study.

3.3 Population

The study focused on the 54 NSE listed firms excluding the nine (9) listed companies in the commercial and services segment. A census approach was adopted given the small size of the population.

3.4 Data Collection

Secondary data was derived from financial reports of the NSE listed firms (excluding 9 firms listed in the commercial and service) for the period 2014 to 2018. Panel data was used. Using a data collection sheet, the debt management aspects and financial performance indicators of the firms was collected.

3.5 Diagnostic Tests

The dependent and explanatory variable are related by the linear equation $Y = \beta_i X + c$ where X and Y are the explanatory and dependent variables, respectively. The variables were graphed in a scatterplot to establish the direction and magnitude of relationship between the variables. The t-test evaluated the level of significance in which the means of the dependent variables are different from the means of independent variables. The Pearson correlation coefficient determined the direction of the relationship between the independent and dependent variables. The values obtained were used to assess whether the independent variables explain the dependent variable and the magnitude of association between them. The correlation coefficient runs from -1 to 1, where a value of 0 represents no association between the variables. A negative value represents an inverse relationship while a positive value shows a positive association. Absolute values of the correlation coefficient close to 1 show that the relationship is very strong. The converse is true for values close to 0, which imply that the degree of association is weak.

3.6 Data Analysis

Data collected from the NSE was entered in the Statistical Package for Social Sciences (SPSS) Version 22.0 after which analysis was done. The data collected was analyzed using descriptive statistics using SPSS and presented through averages, minimum, maximum, means and standard deviations. The information was displayed by use of tables, figures and in prose-form.

3.6.1 Analytical Model

Multiple regression analysis was carried out to establish the relationship between financial performance (ROA) and the independent variables/factors of debt management in the listed firms and how well the independent factors are significantly associated to financial performance. The regression model was depicted by the following equation:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where

Y= Financial performance: (ROA= Net Income/Average Total Assets)

X₁= Debt management = Total Debt/Equity

X₂= Firm liquidity = Current Assets / Current Liabilities

X₃= Financial leverage = Total Debt / Total Assets

X₄ = Solvency ratio = (After Tax Net Profit + Depreciation) / Total liabilities

X₅ = Size of the firm = Log of Total Assets

Further, $\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 = Regression Coefficients

and ε = Error term.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter undertakes an analysis of the data in evaluating the effect of debt management on the financial performance of listed firms in the Nairobi Securities Exchange. Annualized data on the variables under study was collected from secondary sources for the period 2014-2018. The research used the descriptive and inferential statistical approaches in evaluating the data attributes, constructing a correlation matrix between the independent and dependent variables, and interpreting the results using the Statistical Package for Social Sciences (SPSS) version 21.

4.2 The variables under Study

4.2.1 Return on Assets

The financial performance of the listed firms was determined by computing the return on assets for the period. The return on assets was calculated by determining the ratio between the Net Income and the average assets deployed for the period.

4.2.2 Debt Ratio

The debt ratio is a measure of the level of financial leverage the listed firms employed during the year of operations and was computed by determining the ratio of Total Liabilities to Total Assets. This information was available from the annual financial reports.

4.2.3 Current Ratio

The liquidity efficiency of the listed firms was computed by determining the ratio between current assets and current liabilities. The data was obtained from the annual financial reports.

4.2.4 Solvency Ratio

In measuring the listed firm's ability to meet the long-term debt obligations, the research calculated the ratio of the after-tax profit to the total debt obligations for the period.

4.2.5 Size of the firm

The size of the firm was determined by calculating the natural logarithms of the listed firms' total assets as obtained in the annual financial reports.

4.3 Descriptive Statistic

The study presented the descriptive statistic in table 4.1

Table 4.1 Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ROA	5	.4285	.5719	.510385	.0539864
Debt Ratio	5	.6088	.6676	.630586	.0247400
Current Ratio	5	2.9268	4.7413	3.517719	.7413187
Solvency Ratio	5	.3092	.5621	.439953	.1071741
Size of the firm	5	14.2986	14.5309	14.449827	.0905542
Valid N (listwise)	5				

Source: Research findings

The ROA had a mean of 0.510385 and a standard deviation of 0.0539864. The debt ratio had a mean of 0.630586, while the first moment's dispersion about the mean was 0.0247400. The current ratio had a mean of 3.517719 and a standard deviation of

0.7413187. The size of the firm variable had a mean of 14.2986 and a standard deviation of 0.0905542. The solvency ratio has a mean of 0.439953 and a standard deviation of 0.1071741.

4.4 Normality Test

The research interest in validating the normality of the data is to construct a generalization of the outcome of the study. In testing for normality of the variables, the skewness and kurtosis which are the third and fourth moments respectively should lie within the z-values of -1.96 to 1.96 at 5% confidence level (Ghasemi & Zahediasl, 2012). The test statistics are presented in table 4.2

Table 4.2 Test for Normality

Descriptive Statistics								
	N	Mean		Std. Deviation	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Statistic	Std. Error	Statistic	Std. Error	

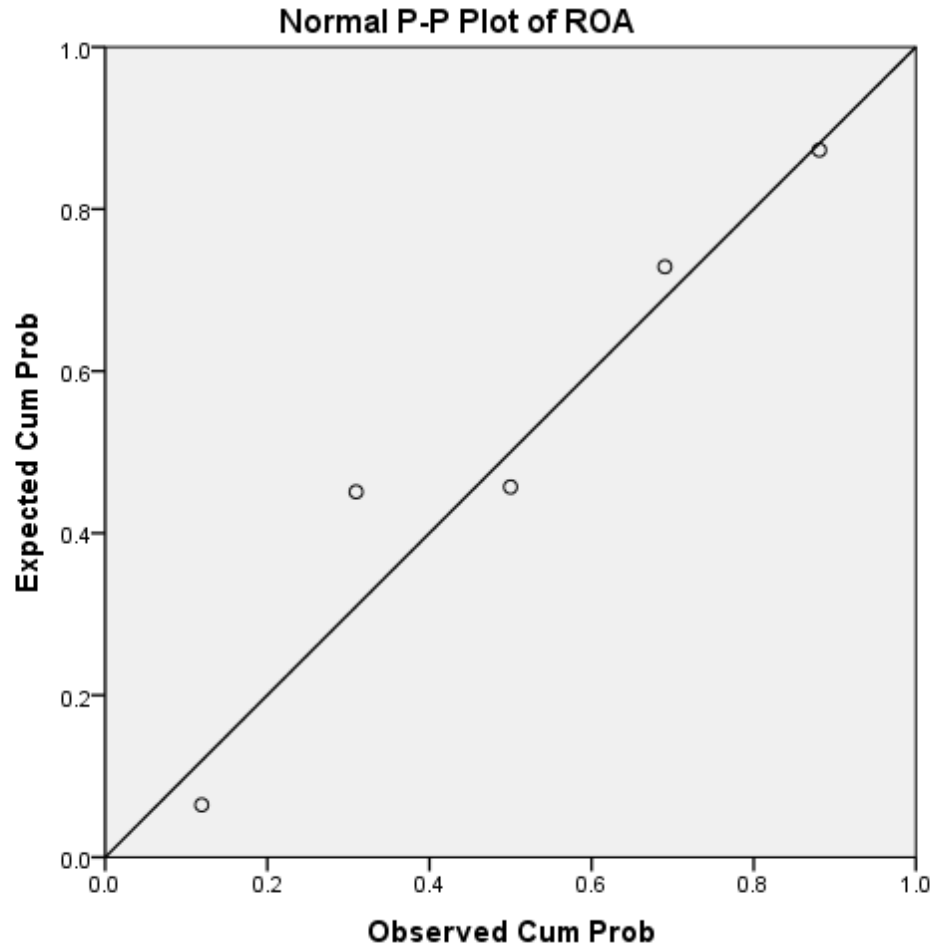
ROA	5	.510385	.0241434	.0539864	-.746	.913	.912	2.000
Debt Ratio	5	.630586	.0110641	.0247400	.941	.913	-.412	2.000
Current Ratio	5	3.517719	.3315278	.7413187	1.529	.913	2.018	2.000
Solvency Ratio	5	.439953	.0479297	.1071741	-.105	.913	-2.203	2.000
Size of the firm	5	14.449827	.0404971	.0905542	-1.568	.913	2.623	2.000
Valid N (listwise)	5							

Source: Research findings

From table 4.2, all values for the skewness and kurtosis lie within the 95% confidence level and therefore the data is normal and conclude that the values for the variables are normally distributed.

4.5 Test for Linearity

A normal P-P plot is constructed to evaluate the fit of the variables to a linear model as shown in Figure 4.1



The normal P-P plot shows that the observed values occur close to the line of best fit which means that a linear model fits the data and that the independent variables have an association to the financial performance of the listed firms.

4.6 Test of Multicollinearity

The test for multicollinearity determines whether there prevails a connection among the independent variables and the level of their association. The statistics for the multicollinearity tests are presented in the table 4.3

Table 4.3 Multicollinearity Tests

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-8.737	.000		.	.		
Debt Ratio	-1.067	.000	-.489	.	.	.121	8.256
1 Current Ratio	.021	.000	.294	.	.	.580	1.725
Solvency Ratio	-.684	.000	-1.358	.	.	.174	5.747
Size of the firm	.702	.000	1.178	.	.	.259	3.854

a. Dependent Variable: ROA

Source: Research findings

The debt ratio has a Tolerance of 0.121 and VIF of 8.256. The current ratio has a Tolerance of 0.580 and a VIF of 1.725. The Solvency Ratio has a Tolerance of 0.174 and VIF of 8.256. The Size of the firm has a Tolerance of 0.259 and VIF of 3.854. The VIFs have a value of less than 10, indicating that there exists no evidence of significant multicollinearity among the independent variables.

4.7 Correlation Analysis

Correlation analysis was conducted to determine whether there exists a connection between the independent variables and the dependent variable. The analysis was also to determine the direction and magnitude of the relationships and the results are presented in table 4.4

Table 4.4 Correlation Tests

		Correlations				
		ROA	Debt Ratio	Current Ratio	Solvency Ratio	Size of the firm
ROA	Pearson Correlation	1	.739	-.339	-.471	.698
	Sig. (2-tailed)		.154	.576	.423	.190
	N	5	5	5	5	5
Debt Ratio	Pearson Correlation	.739	1	-.598	-.850	.212
	Sig. (2-tailed)	.154		.287	.068	.732
	N	5	5	5	5	5
Current Ratio	Pearson Correlation	-.339	-.598	1	.587	-.110
	Sig. (2-tailed)	.576	.287		.298	.860
	N	5	5	5	5	5
Solvency Ratio	Pearson Correlation	-.471	-.850	.587	1	.253
	Sig. (2-tailed)	.423	.068	.298		.681
	N	5	5	5	5	5
Size of the firm	Pearson Correlation	.698	.212	-.110	.253	1
	Sig. (2-tailed)	.190	.732	.860	.681	
	N	5	5	5	5	5

From the above table, it is evident that there exists a significant correlation between the financial performance variable ROA with the independent variables debt ratio, current ratio, solvency ratio and the size of the firm with the correlation coefficients of 0.739, -0.339, -0.471 and 0.698 respectively.

Debt ratio and size of the firm have a positive correlation with financial performance while current ratio and solvency ratio have a negative association with financial performance. The correlation coefficient of debt ratio is 0.739 which signifies a strong positive relationship between debt management and financial performance of the listed firms. The correlation coefficient of the current ratio and solvency ratio of -0.339 and -

0.471 respectively shows a weak negative relationship between liquidity management and solvency and the financial performance of the listed firms. The size of the firm has a correlation coefficient of 0.698 which signifies a strong positive correlation between the size of the firm and financial performance.

4.8 Beta Coefficients

The beta coefficients for the independent variables are regressed against the dependent variable to yield the linear model.

The linear model $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$ yields the equation

$$Y = -8.737 - 1.067X_1 + 0.021 X_2 - 0.684X_3 + 0.702X_4 + \varepsilon$$

4.9 Discussion and Interpretation of Findings

The objective of the research was to evaluate the direction and extent of the influence debt management, liquidity management, solvency, and size of the firm on the financial performance of the NSE listed firms. The study obtained secondary data from the firms' annual reports which was used to construct a linear regression model for the study.

The results of the study present strong evidence of correlation between the variables; debt management, liquidity management, solvency, and size of the firm and the returns on assets of listed firms. The correlation coefficient for debt management was found to be a strong positive, which means that the efficient methods firms employ in managing their debt results in higher returns on assets. The control variable, size of the firm had a strong

positive correlation with the return on the assets which is consistent with the results by Mohammad & Jaafer, (2012), which implies that as the firms increase their assets, the more likely they would perform better. This could probably mean that larger firms have an advantage of economies of scale, better corporate governance practices and ability to mobilize financial and non-financial resources efficiently to yield better performance. However, the current and the solvency ratios have weak negative relationships with the ratio of net income to assets of the listed firms (Mohammad & Jaafer, 2012). This means that the more the firms seek to improve their liquidity and solvency the more likely they are to yield a decline in the financial performance (Mohammad & Jaafer, 2012). Therefore, firms would want to put less effort in working capital management and solvency as compared to debt management and increase in size.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a synopsis of the results of the study. The important outcomes of the study are presented which have led to the conclusions drawn and recommendations to various stakeholders who may be interested in findings of this research. The study limitations are also indicated with recommendations towards future research provided.

5.2 Summary of Findings

The fundamental reason for conducting the research was to determine the linkage between the management of financial leverage portfolios and the financial returns on assets of the entities listed in the NSE. The mean of the financial performance proxy, return on assets was found to be 0.5 with a standard deviation of 0.05, which implies that for the five year period of 2014-2018, there were significant volatilities in return on asset of the entities under study.

The debt management variable was found to influence the ROA of the corporate entities with a high value of positive relationship reported. The coefficient of determination of the debt ratio is 74% which implies that the financial performance of the corporate entities under study is highly influenced by a single unit of fluctuations in the debt ratio. The study F-statistic of 15 implies that there is a strong linkage between debt management and the return on assets. The results are accepted even at 0.01 level of significance which

means that the results are acceptable at both 1% and 5% significance levels Anyanzwa (2015). The size of the firm has a strong positive relationship which means that the more assets employed, the more likely a firm would improve its financial performance.

5.3 Policy Recommendations

The findings of the study are imperative to stakeholders of the academia, regulatory agencies, analysts, investors, and the corporate world. To the management of the listed firms, the study recommends that the firms adopt stronger debt management practices which would yield high returns to assets. Institutions offering credit facilities would also be more willing to originate loans to firms that have better debt management practices and would therefore, analyze this statistic when performing credit analysis. The regulators including the Central Bank of Kenya (CBK), Capital Markets Authority (CMA) and Insurance Regulatory Authority would be more inclined towards formulating policies that encourage rigorous financial stress testing to assess the debt management practices of the firms they regulate and demand more on prudential management of debt to cushion investors and customers of the entities.

5.4 Limitations of the Study

The main limitation to study was inherent to the reliance on the sources of the data. The study relied on secondary data obtained from the financial reports contained in the annual reports of the listed entities. There are possibilities that the errors both of omission and commission were transferred to the current research. The financial reports are at times influenced by the management's desire to achieve a performance objective which may result in either overstating or understating the reports.

The study covered a period including 2017 which was highly influenced by the prolonged electioneering period that had adverse effects on the economic returns of the country's major sectors. The nullification of the elections in 2017 particularly had a bear run on the price of most financial corporate entities leading to high volatility (Anyanzwa, 2018). Foreign investment during the year 2017 declined which also had adverse effects on the variables that are under study. Most of the listed firms were thus individually affected by the elections and thus using the variables for that calendar year would result in unexplained variance on the variables, which was not of interest in this study.

The study was limited to the funding resources available to the researcher which implied that only four independent variables would be assessed against the financial performance of the listed firms. More variables would have enriched the model and explain nearly 100% of the changes in the returns to the investors of corporate entities.

5.5 Suggestions for Further Study

The primary objective of the study was to identify whether and to what extent debt management influenced the financial performance of listed firms. There are more potential variables that contribute to the returns on assets. This research recommends that future studies review them with focus on less studied areas like SMEs, family businesses and unincorporated entities.

This study employed the linear model in predicting the variables influencing the returns on assets of the corporate firms selected. It is suggested that models with richer attributes like GARCH be employed in assessing the macroeconomic variables, determining the linkages, and projecting the future outcomes.

REFERENCES

- Addaney, M., Awuah, S. B., and Afriyie, A. (2016). Debt Management and the Performance of Small Scale Enterprises in the Kumasi Metropolis of Ghana. *Asian Economic and Social Society*.6:5, pp. 101-112
- Ahmeti F., & Prenaj B. (2015). A Critical Review of Modigliani and Miller's Theorem of Capital Structure, *International Journal of Economics, Commerce and Management*. 3(6).
- Almajali, Y. A., Alamro, S. H., & Al-Soub, Y. Z. (2012). Factors Affecting the Financial Performance of Jordanian Insurance Companies Listed at Amman Stock Exchange. *Journal of Management Research*,4(2): 13-25.
- Batchimeg, B. (2017). Financial performance determinants of organizations: The case of Mongolian companies. *Journal of Competitiveness*, Vol. 9(3), 22-33, ISSN: 1804-171X (Print), ISSN: 1804-1728 (On-line), DOI: 10.7441/joc.2017.03.02
- Baum C. F., Schafer D. and Talavera O. (2007). The Effects of Short-Term Liabilities on Profitability: The Case of Germany, *Money Macro and Finance (MMF) Research Group Conference 2006 61*, Money Macro and Finance Research Group.
- CMA (2015) Kenya Quarterly Statistical Bulletin December.
- Cudiamat, A., & Siy, J. S. (2017). Determinants of profitability in life insurance companies: Evidence from the Philippines. *Essays in Economics and Business Studies*, pp. 165-175, ISBN: 978-80-89691-42-5. DOI: 10.18427/iri-2017-0075
- Dube, Hlupeko. (2013). The impact of debt financing on productivity of small and medium scale enterprises (SMEs): A case study of SMEs in Masvingo urban. *International Journal of Economics, Business and Finance*, 1(10): 371-381.

- Elgonemy, A. (2002). Debt-financing alternatives- Refinancing and restructuring in the lodging industry, *Cornell Hotel and Restaurant Administration Quarterly*, 43(3), 7-21.
- Frank, M. Z., Goyal, V. K. and Shen, T. (2020). The Pecking Order Theory of Capital Structure: Where Do We Stand? (February 19, 2020). Available at SSRN: <https://ssrn.com/abstract=3540610> or <http://dx.doi.org/10.2139/ssrn.3540610>
- Islam, S. Md., & Nishiyama, S. (2016). The determinants of bank profitability: Dynamic panel evidence from South Asian Countries. *Journal of Applied Finance & Banking*, 6(3), 77-97.
- Kayo, E.K. and Limura, H. (2010). Hierarchical determinants of capital structure, *Journal of Banking & Finance*, 35, 358-371.
- Kebewar, S.A. (2012). The effect of debt on corporate profitability: Evidence from French service sector. *MPRA paper 43304*, University library of Munich.
- Kyule, J.M. (2015). Impact of liquidity and solvency on financial performance of firms listed at the Nairobi securities exchange. Unpublished UoN Msc Finance research
- Langat C.P., Chepkoech L., Shavulimo M.P., Wachira, M., & Thuo, D. (2014). The effect of debt financing on the profitability of Kenya Tea Development Authority processing factories. *Unpublished MBA Project* Retrieved May 29, 2019, from <http://eserver.kabarak.ac.ke/OCS/index.php/conf05/conf05/paper/view/182>

- Makanga, A.M. (2016). The effect of debt financing on the financial performance of companies listed at the Nairobi Securities Exchange. *MBA Research Project* University of Nairobi
- Muchai, J.K. (2016). Evaluating the Effect Of Corporate Leverage On Profitability Of Nairobi Securities Exchange Listed Manufacturing And Allied Companies. *Unpublished MBA Research Project*, Kisii University
- Muchugia L. (2013). The effect of debt financing on firm profitability of commercial banks in Kenya. Retrieved May 29, 2019, *Unpublished MBA Research Project* retrieved from <http://erepository.uonbi.ac.ke/handle/11295/59837>
- Muhammad, S., Iqbal, S., Muhammad, J., Muneer, S., & Jahanzeb, A., & Khan, S. (2012). A Critical Review of Capital Structure Theories. *Information Management and Business Review* 5:4 pp. 553-557.
- Munyuny, Tabitha C. (2013). The effect of debt financing on financial performance of small and medium size enterprises in Eldoret Town (2010-2012). Retrieved May 19, 2018, from <http://ir.kabarak.ac.ke/handle/123456789/182>.
- Musiega M. G (2013). Capital structure and performance: Evidence from listed non - financial firms on Nairobi Securities Exchange (NSE) Kenya. *International journal for management science and technology*, 1(2): 43-60.
- Pradhan, R. S., & Shrestha, D. (2016). Impact of liquidity on bank profitability in Nepalese commercial banks. *Available at SSRN:* <https://ssrn.com/abstract=2793458> or <http://dx.doi.org/10.2139/ssrn.2793458>

- NSE (2016) The Nairobi Securities Exchange. Retrieved on 21/06/2018, from <https://www.nse.co.ke/listed-companies/list.html?start=50>
- Quijones, D. (2015). Mexico's businesses are on the edge of a debt crisis. *Business Insider*. Retrieved from <http://www.businessinsider.com/mexicos-businesses-edge-of-debt-crisis-2015-8>
- Rizwan, I. (2016). Impact of liquidity management on profitability of Pakistani firms: A case of KSE-100 Index. *International Journal of Innovation and Applied Studies*, 14(2), 304-314, <http://www.ijias.issrjournals.org/>
- Yan Bao, (2013) An Analysis of the Factors Affecting Debt Financing Structure-- Empirical Evidence from Chinese Listed Companies. *Journal of Jinan University*, 4(2): 78-91.
- Yi J (2005): A Study on Debt Maturity Structure. *The Journal of American Academy of Business*, 7(2):277–285.

Appendices

Appendix 1 – List of Companies under investigation

1	Barclays bank of Kenya
2	NIC Bank Ltd
3	CFC Stanbic Holdings
4	HF Group Ltd
5	The Co-operative Bank of Kenya Ltd
6	I&M Holdings Ltd
7	KCB Group Ltd
8	Standard Chartered Bank Ltd
9	Diamond Trust Bank Kenya Ltd
10	National Bank of Kenya Ltd
11	Equity Group Holdings
12	Jubilee Holdings Ltd
13	Kenya Re-Insurance Corporation Ltd
14	CIC Insurance Group Ltd
15	Pan Africa Insurance Holdings Ltd.
16	Liberty Kenya Holdings Ltd
17	Britam Holdings
18	B.O.C Kenya Ltd
19	British American Tobacco Kenya
20	Carbacid Investments Ltd
21	East African Breweries Ltd
22	Unga Group Ltd
23	Safaricom PLC
24	Limuru Tea Co
25	Kapchorua Tea Co
26	Sasini Ltd
27	Williamson Tea Kenya
28	Car and General (K) Ltd
29	Athi River Mining Ord
30	Bamburi Cement Ltd Ord
31	Crown Paints Kenya PLC.
32	E.A. Cables Ltd Ord
33	E.A. Portland Cement Ltd
34	Total Kenya Ltd
35	KenGen Ltd Ord
36	Kenya Power & Lighting Co Ltd

37	Olympia Capital Holdings ltd Ord
38	Centum Investment Co
39	Trans-Century Ltd
40	Home Afrika Ltd Ord

Appendix 2 - Data Collection Instrument

Instrument	Period
Net income	2014-2018
Current Assets	2014-2018
Current Liabilities	2014-2018
Total debt	2014-2018
Total equity	2014-2018
Total Assets	2013-2018