

**EFFECT OF DEBT FINANCING ON FINANCIAL PERFORMANCE
AMONG FIRMS LISTED AT NAIROBI SECURITIES EXCHANGE**

BY

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DECLARATION

This research project is my own original work and has never been submitted for a degree at any other university for examination.

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

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DEDICATION

I dedicate this project to my wife Ritah, my daughters, Natasha, Zara and Aliza for their prayers; love and moral support which enabled me to undertake this research.

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ABBREVIATIONS

CBK:	Central Bank of Kenya
CMA:	Capital Market Authority
LTD:	Limited
MM:	Modigliani and Miller
NSE:	Nairobi Securities Exchange
PLC:	Public Limited Company
ROA:	Return on Asset
ROE:	Return on Equity
SPSS:	Statistical Package for Social Science

ABSTRACT

The aim of this study was to examine the effect of debt financing on financial performance of listed firms at the Nairobi Securities Exchange. The agency theory, pecking order theory, trade-off theory, Modigliani and Miller theory were adopted for the study. A descriptive design was used in the study and the population entailed the 35 non-financial firms listed in the Nairobi Securities Exchange that had complete data for the period covering 2014 to 2018. To carry out the study secondary data was used which was extracted from the targeted firms financial statements and reports. Analysis of data was carried out through descriptive statistical techniques, correlation analysis and the multiple linear regression. The findings revealed that debt financing had a weak negative correlation that was significant ($r = -0.208$, $p = 0.006$). Firm liquidity had a significant positive and weak correlation ($r = 0.205$, $p = 0.007$). Firm size had a weak negative but insignificant correlation ($r = -0.030$, $p = 0.692$). While asset tangibility had a strong negative but insignificant correlation ($r = -0.092$, $p = 0.227$). The study concluded that financial performances of non-financial firms that are listed at the Nairobi Stock Exchange are affected negatively and significantly by debt financing. The study also concluded that firm liquidity positively and significantly affects financial performance by non-financial firms listed at Nairobi Stock Exchange. Further, firm size and asset tangibility affected negatively but insignificantly on financial performance of the non-financial firms. The study thus recommended that the management of non-financial firms have to ensure they hold optimum level of debt to ensure that they do not affect other functions of the firm. The study also made recommendations that the management of non-financial firms should ensure that their firms are liquid enough to ensure that they can meet their obligations as they fall due so as to attract investors for the improved financial performance of the firms.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The management of a firm is usually faced with a balancing act of deciding how much funds should be raised by owners/shareholders (equity) and how much should be raised externally from non- owners (debt) (Mutegi, 2016). Debt financing is a key source of capital in many growing firms since their retained earnings may not be sufficient enough or may be unavailable (Momanyi, 2018). However if firms settle on poor debt financing decisions, the outcome may lead to high capital cost leading to reduction in overall financial performance. Therefore in making this decision the management should focus on various sources offinancing in relation to their cost and benefits associated (Liaqat et al., 2017).

Modigliani and Miller (1958) irrelevancy theory under limiting assumptions of no taxes and costs associated with transactions suggest that both equity anddebt financing has no effect on the company's worth. Trade offhypothesis by Kraus andLitzenberger (1973) is applied in a situation where the firm works towards striking a balance between taking advantage of tax shield on interest expense arising from debt financing and the actual cost of the debt. Agency theory proposes that as a firm's leverage is augmented, so is the agency cost which implies that conflict between equity holders and debt owners augments because shareholders are likely to adopt riskier investments to the detriment of debt financiers (Jensen &Meckling, 1976). Pecking order theory argues that managers are in favor of internal financingas compared to external, and where internal funds are insufficient, debt financing is given first priority to equity financing (Myers & Majluf, 1984).

significant ramifications on the presentation of the recorded firms since it impacts hazard and return. Most firms raise budgetary capital by giving obligation protections or by distributing basic stock. This mixture of firms at different structure provides a varying array of capital structure arrangements, which can be investigated on whether and how they affect the overall corporate performance. In short, effects of a variation on the extent where most organization's resources are being funded through loanable funds on the return for each share of the organization are called financial debt (Olang, 2017).

1.1.1 Debt Financing

Debt financing refers to the acquisition of capital from a specific lender to undertake business operations and repay it back within a pre-determined period with interest (Damodaran, 1999). Borrowing of loans from other banks, companies or financial institutions so as to support the operations of a business is referred to as debt financing. An interest expense is paid before the maturity period of the debt, with the loan principal being repaid at a future time (Hussain, Millman & Matlay, 2006). Capital structure has been described as a mixture of equities finance and debtor finance and is usually regarded as the one of the most significant financial variable because it is linked to the capacity of the company to meet the requirements of all its stakeholders such as employees, community, shareholders, among others (Jensen, 1986).

Debt entails two types of options; short-term debt repayable within a period of twelve months and long-term debt payable within a time frame of more than twelve months (Adekunle & Sunday, 2010). Decision on source of financing is among the key financial decisions that are taken by firms since debt financing has an effect on the financial performance. Leverage financing provides the borrower with an opportunity to finance an

investment on short-term source at the same time spreading the cost of capital over time so as to meet the affordability and budgetary constraints (Vengesai & Kwenda, 2017). However, it is important to note that overreliance on equity financing may lead to liquidity issues within the company and possibility of failure to take advantage of possible growth opportunities that may be there (Amara & Aziz, 2014).

When making capital structure decisions, it is prudent for the firms to take into account the tax advantage on the use of debt, the availability of collateral or the security used to secure debt capital, ability to change the capital structure and firms vulnerability to financial risk. Generally, utilization of debt in capital structure will lead to an increase in gearing due to interest tax shield benefit (Luigi & Sorin, 2009).

1.1.2 Financial Performance

Leah (2008) defined financial performance as the outcomes obtained from achieving internal and external objectives of a company (Hansen & Mowen, 2005). In this way, the appraisal of how well a firm is utilizing its assets to raise income should be possible utilizing its money related execution. Money related execution gives a road to the assessment of business exercises in objective fiscal terms. It is a crucial measure of management of profit making firms. It is a standard measure of the ability of the company continued growth, survival and competitiveness.

The association's fundamental goal is to augment the abundance of the investors and consequently execution estimation assesses how more extravagant the investor becomes because of the venture choices over a given period (Baum et al, 2006). Good financial performance will result to a ripple effect whereby investors are able to get long term

returns therefore willingness to put in more investment, stakeholders such as creditors are able to be paid on time thereby ensuring better quality and timely products and services. Employees also get remunerated well thus enhancing quality services to the customers and stakeholders hence more satisfaction for all involved parties and overall growth of the firm (Dehuan& Jin, 2008). According to Onger (2014), financial performance is essential, since it's based on the outcome achieved by the management of the firm.

According to Kaplan & Norton (1992) financial performance is determined using several parameters like; Return onEquity and Return onAsset. ROE is obtained in terms of net i after tax income divided by equity capital total. Also, ROA indicates all assets return of the company and frequently used by firms overall index of financial performance. The computation is by division of after Taxes Net income by Total Assets (Reese & Cool, 1978). As a result, ROA was applied in measuring financial performance.

1.1.3 Debt Financing and Financial Performance

Capital structure theories explain how capital structure decision impacts and interacts with business performance. The association of firm's structure of capital and its performance has been underscored by various theories (Khan, 2012). Jensen and Meckling (1976) reasoned that high capital structure debt has the beneficial effect of addressing agency conflict between managers and shareholders in the sense that it disciplines the management not into misusing funds since there are standing obligations in the form of interest and principal on debt to be repaid. This will lead to a more judicious management of the firms operations. According to the MM proposition, there is no optimal structure of capital and hence a decision to use whichever source of finance has no impact of a firm's value (Modigliani & Miller, 1958).

Debt finance results to benefits such as tax shield and the diminution of free cash flow problems by enhancing managerial behavior while the expenses of debt financing include agency expenses and bankruptcy cost which results from the conflicts between shareholders and debt holders (Fama & French, 2002). On the other hand, the inability to meet such financial commitments may result in loss of collateralized asset or even bankruptcy (Chepkwony, 2018). This is because its increases the risk perceptions of shareholders while raising financial costs in terms of interest and principal amount advanced at a specified terms. A company with too much debt is likely to default on repayment of the interest. This would ultimately result into bankruptcy proceedings and financial distress (Acharya & Almeida, 2007). Thus, this reveals how significant financing decisions are as they can define the going concern of a firm (Abubakar, 2015).

Jibrán et al (2012) found that debt also offers business enterprises a tax shield; hence firms are motivated to borrow more to reap maximum tax benefits which translate to higher profits. Yet, anomalous obligation levels may constrain a firm into liquidation thus; supervisors ought to be quick to address chance elements, for example, high obligation value proportion which suggests that a company's risk is high. According to Olang (2017) a higher degree of financial debt leads to a higher payment of interests which in turn affects negatively the firm's baseline of earnings.

1.1.4 Firms Listed at Nairobi Securities Exchange

NSE is a body corporate established in the Companies Act (CAP 486) of the Kenyan law and comprises of all licensed stock brokers. The NSE was privatized in 1988 when government of Kenya sold 20% of its holdings. The NSE market is structured in a way that its operations are carried out through Central Depository & Settlement Corporation.

CMA of Kenya is the main regulator of all firms listed where the regulator ensures compliance of the listed companies (NSE, 2018).

Currently there are 65 firms listed in 11 sectors (NSE, 2018). These sectors are banking, agriculture, telecommunications and technology, commercial & services, automobiles & accessories, energy & petroleum, insurance investment, construction & allied, manufacturing & allied and growth enterprise market segment. In this particular study, the banking and insurance divisions will not be examined due to the capital structure regulations. NSE has a critical influence in the improvement of Kenya's economy by empowering reserve funds and contributing and helping neighborhood and universal firms to access practical capital. In many firms capital structure is ordinarily expected to help the enthusiasm of the value investors (Mutegi, 2016).

Firms recorded in NSE are relied upon to be monetarily steady so as to assemble investors' certainty and add to economic development. In this manner, these organizations must meet the set criteria set by NSE. In any case, regardless of gathering the set posting prerequisites, firms are presented to advertise elements which influence them either positively or negatively. The decision whether to take debt finance or equity financing has remained within the confines of boards of directors but financial analysts have argued in support and considers debt finance as appropriate for increasing firm value provided they are acquired at appropriate market rate and proceeds utilized in a good way (Kuria, 2010).

According to CMA (2018) debt and financial performance issues are reflected on listed firms as some have massive debts accumulating and thus pushing management into survival tactics. The huge debts have resulted to companies owing more than their net

value, therefore investors end up facing low prospective returns in current and future years. Kenya airways, ARM cement, Uchumi supermarkets, Transcentury, Home Afrika and Mumias sugar are examples of quoted firms in search of new cash injections so as to retire their loans partly and hence embark on turnaround plans. Debt also boosts return on equity of a company but also can result to companies collapsing. This then hurts the profitability and firms are unable to cover their finance and operating costs with the ability to generate cash failing to match the punishing debt obligations. Several listed firms have been known to use debt to grow fast and betting on making high returns that suffice to pay off the loans and create net gains also. This study hence investigated the listed firms in NSE to establish the overall relationship.

1.2 Research Problem

Firms that need money to finance are looked with predicament on whether to utilize obligation or value. MM (1958) argued that gains from a cheaper loan are exactly off-set by the increase in equity cost and therefore, the financing decisions of the firm were irrelevant in perfect market conditions. However, according to Kraus and Litzenberger (1973) in their trade off theory they state that earnings from borrowed funds and cost of borrowing these funds are key determinants of debt financing (Myers, 1984). Jensen (1986) explains the relevance of debt in minimizing the free cash flow cost in instances where the company is generating profits. However, if a firm generates huge free cash flows there exist a conflict of interest between the managers and the shareholder of the firm. Use of debt acts as a bond since it reduces the level of cash flow that is available to the managers of a firm.

Financial analysts have argued in support of debt use and consider debt finance as good in enhancing firms' performance provided it is acquired at a favorable rate and its proceeds utilized in a good way. However, this has not been the case with some of the listed firms at NSE. This is clear with firms, for example, Mumias Sugar Company, Kenya Airways, Uchumi Supermarkets that have acquired huge debts that have exceeded their net gains hence affecting their performance adversely as well as investor confidence, therefore resulting in total collapse and even closures. For instance, the Cadbury East Africa and Pan Paper Mills Company in Webuye have shut down their operations. Other firms such as Eveready East Africa are also facing similar challenges and are contemplating closing their operations. These developments coupled with the lack of a universal theory triggered the need for further research.

Globally, Aziz (2019) revealed that debt financing has a negative and significant impact on the performance of non-monetary firms in Pakistan. Liziwe (2017) study outcomes indicated that debt funding had statistical and significant impacts on ROA of Telone private limited in Zambia. Magoro and Abeywardhana (2017) investigated a research on debt capital and ROA on South African companies and found that debt capital both long and short have a negative impact on the ROA. Prempeh et al (2016) carried out a research on the effect of debt policy on ROA, with empirical evidence from listed manufacturing companies on the Ghana Exchange. Results indicated that debt both long, short and total had a negative effect on the ROA of firms.

Locally, Karuma et al (2018) carried out a research on the effect of debt financing on ROA of manufacturing firms at NSE and found that both short-term loans have a positive effect on ROA. Omollo et al (2018) revealed that long, short and total debt exhibit a negative and

statistically significant effect on ROA but no significant effect on ROE. Kiriimi et al (2017) study outcomes exhibited a positive strong relationship between ROE and debt of savings and credit cooperative societies in Maara sub-county. Masavi et al (2017) found that an increase in debt ratio results to increase in performance financially and equity debt combinations result to reduction significantly on tax profits of Agricultural Companies Listed at NSE. Ng'ang'a (2017) found that there was positive insignificant association between the independent variables (debt financing and revenue growth) and dependent variable (financial performance) of privatized secondary schools in Kajiado County.

Lack of consensus on empirical studies relating to debt financing and financial performance and disagreement among important theories of capital structure is a reason enough to do further research. Local studies also indicated conflicting findings and they looked at financial institutions. This shows there still lays a gap that could be strengthened if proper research work is done in the area of the topic. The research is also intended to spur other research work to be done in the same field to identify linkage between financing by debt and performance. The research question is what are effects of debt financing on financial performance?

1.3 Research Objective

To establish the effect of debt financing on financial performance among firms listed at Nairobi Securities Exchange.

1.4 Value of the Study

The findings of the study intend to benefit industry practitioners involved in making financing decisions by affording them a vital reference point on the need by corporations

to determine and maintain optimal financing framework necessary to improve financial performance. This could be achieved by identifying specific industry- based debt thresholds that would ensure that firms are not unnecessarily exposed to risk of financial failure that results to in adequate cash to support day to day operations.

The findings of this study are an important reference source for researchers, scholars and students who might be interested in undertaking research in this field. Significance of this study to the scholars stems from it being capable of helping ascertain research gap to guide them when carrying out further studies in this field. Identification of research gap is critical in ensuring the field is enriched with knowledge depth as opposed to quantity of research works with limited depth.

The research findings intend to benefit current and potential investors of listed firms, in understanding the impact of leverage level on value of the firm and make informed decisions before venturing into any investment. The study intends to benefit the managers of listed firms in Kenya, in making best choice of financing decision that will enhance firms' performance and maximize the wealth of stakeholders.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter examines the relevant literature relating to effects of debt financial and financial performance. It presents the theories and the determinants of financial performance. Empirical literature from international and local studies, conceptual framework and summary based on the review is also discussed

2.2 Theoretical Review

This research is founded upon 4 main capital structure theories which include; MM theory, trade-off theory, Pecking order theory and Agency theory.

2.2.1 Modigliani and Miller Theory.

Modigliani and Miller (1958) investigated capital structure and made several propositions. At the onset, they found that the traditional perspective unacceptable because it seemed unsupported by the theoretic frameworks. In particular, they found little reasons apart from some marketing perceptions which they seemed to have an effect on the financing. At disequilibrium a levered firm may appear to have a higher value which according to MM will not persist for long at this firm and the levered firm is overvalued and therefore the investors in this company will attempt to make a switch from a levered firm to unlevered firm. Such investors will sell shares of a levered, borrow an amount which is equivalent to the amount which the management of the firm had borrowed on his behalf and then invest the entire cash proceeds in the levered firm (Modigliani& Miller, 1958).

Modigliani and Miller (1963) indicated the acquiring for external debt increases financial performance through tax shield benefits. Removing suspicions in their work and presenting rivalry, insolvency costs, and information asymmetry, and having business model power, money structure has the earmarks of being an impact factor on firm esteem. The proposition is grounded on assumptions that when the levered value of shares is more than the unlevered then investors choose personal debt to raise the funds for

financing a firm. The scenario then affirms the irrelevancy of capital structure in the valuation of a company.

2.2.2 Trade-off Theory

This theory was proposed by Myers (1984). The theory holds that, optimum CS is achieved through weighing the benefits and cost of borrowing. Therefore firms' management is responsible for deciding on the debt and equity ratio to include in the CS by measuring the cost and benefit incurred from each. Debt capital results to benefits such as tax shield though high debt levels in the capital structure can result to bankruptcy and agency expenses. Agency expenses results from divergence of interest among the different firm stakeholders and because information asymmetry (Jensen & Meckling, 1976).

However various scholars have criticized the trade-off theory. According to Luigi and Sorin (2009), trade-off theory was postulated after the deliberations over the MM irrelevance theorem when corporate tax was added on the theory this created debt benefits in that it was a tax shield implying a 100% debt financing. Companies with high returns with tangible assets will use more debt than firms with low returns and consequently risky assets (Sheikh & Wang, 2011). The implication of this theory is that some of the firms may end up undertaking projects that do not have positive net present value because some of the securities to be issued may be mispriced giving rise to adverse selection costs. The choice of financing that a firm selects can reduce the adverse selection costs hence capital structure is vital in asymmetric information (Kemsley & Nissim, 2002). The theory is applicable since the quoted firms that carefully select equity

and debt levels for their financing were well adjusted to generating higher profits as opposed to those that disregarded their debt and equity levels.

2.2.3 Pecking Order Theory

This hypothesis communicates that associations will lean toward inside assets sourcing rather than outer store sourcing (Myers and Majluf, 1984). It acknowledges that obligation proportion isn't supported by firms rather they lean toward outside wellsprings of assets of advantages when inside assets are insufficient. As such, there is no ideal predetermined combination of internal and external financing which can optimize a firm's value. This theory argues that a firm ought to follow a given order when utilizing financing options so as to minimize on financing costs. It proposes that a firm needs to foremost utilize retained earnings, debt financing should be the second option and lastly, a firm can raise equity if need be. The theory capitalizes on limitation of the tradeoff theory of ignoring information asymmetry. Due to this information asymmetry, the theory suggests that there exists conflict between insiders and outsiders in an organization (Kraus & Litzenberger, 1973).

Just like the MM hypothesis, the theory also assumes existence of a perfect market. The theory assumes managers will be obliged to deal in the best interest of the investors since they know more about the company future growth opportunities (Tale, 2014). Also, it is assumed information asymmetry exists between them. This case may not be realistic in practice as it also ignores the problems that may occur when a firm's managers get more comfortable with the companies financials and become indiscipline (Kishore, 2009). The theory is significant to this study because listed firms in Kenya tends to lean towards the

argument of pecking order theory, because this firms maximizes on internal sources available to fund their operations before seeking external funds.

2.3 Determinants of Financial Performance

Financial Performance of a firm is affected by various factors which are broadly classified as micro factors and macro factors. Micro factors are firms specific and affects individual firm while macro factors affects all the firms and sectors. This study looked into the micro factors such as debt financing, liquidity, firm size and asset quality.

2.3.1 Debt Financing

Debt financing may be advantageous or disadvantageous to the firm in respect to the resulting costs. Debt financing results to interest expenses which is paid before the maturity period of the debt in excess of partial principal payments of the loan (Harelimana, 2017). Debt entails two types of options; short-term debt repayable within a period of twelve months and long- term debt payable within a time frame of more than twelve months (Adekunle et al., 2010). Firms use borrowed funds to enhance their operations since it provides them with the potential of increasing the firm efficiency and improve the ROE. Using debt in financing the operations of the firm will enhance the performance if only the return on investment is higher than the cost of capital borrowed (Githaigo&Kabiru, 2015).

2.3.2 Firm Liquidity

Liquidity in firms is the capability of firms to convert its assets into cash. Firms with high liquidity are able to leverage on the opportunities that will yield high returns and at the

same time protect the firm from going bankrupt during financial distress times. With the pecking order theory, liquidity reserves are easily created from profits available as firms opt for funds generated internally than externally. Firms won't be required to seek external funds if its assets they have are liquid enough to finance the various projects in the firm. It brings out the capacity of a firm to meet its obligations that are immediate using the current assets available. A good current ratio indicates that a firm is capable of paying up its obligations using current assets (Mutegi, 2016).

2.3.3 Firm Size

The size of a firm can be determined either through their capital base, market share or area of operational coverage like number of branches. Firm size has the ability to influence its investment decisions and as such, larger firms use their economies of scale in operations for investment in several sectors of the economy in order to maximize revenue and reduce costs. Large firms are more advantaged when rising outside funds from the capital markets, which can be attributed to their large sizes which attest to their capability of financing the borrowed funds. Also, large firms have very minimal dependence on internally raised funds, enabling them to profit more than the smaller firms (Alghusin, 2015).

Rajan and Zingales (1995) established structure of capital is positively related to size of the company as seen by survey of all the G-7 countries, with exception of Germany, which exhibited a negative association. Okiro, Aduda&Omor (2015) from this study revealed that firm size was positively associated with capital structure; however this association did not hold when short term debt only was considered.

2.3.4 Asset Tangibility

Tangibility of assets refers to fixed assets ratio to the firm's total assets. The fixed assets play a vital role in determining firms debt level, turnover and finally firms profitability. Fixed assets of the firm have bigger economic value than intangible asset, which tend to lose value quickly in case of bankruptcy and have minimal informational asymmetries. The tangible assets usually are used as guarantee and collateral by firm's creditors in case a firm requires external financing. Therefore, companies with high amount of assets that are tangible are seems to have high debt level in structures of capital than firms with less tangible assets. These external finances in turn lead to high turnover and enhance the firm's performance if efficiently utilized (Rajan, & Zingales, 1995). Tangibility of assets is obtained as a fixed assets ratio to total assets.

2.4 Empirical Review

In Pakistan, Aziz (2019) focused on how debt financing impact on ROA of non-financial firms. A causal research design was used on a population target of various sectors with secondary data being composed from the firm reports over a 9 year period. The study population included 14 non-financial sectors of Pakistan stock exchange for period 2006-2014. Using regression analysis it was found that financial performance is negatively affected. Thus the study recommended that companies have to rely more on internal sources of financing due to it being cheap and reliable. This research presents a contextual gap as the findings for the Pakistan firms cannot necessarily be generalized to the Kenyan context hence the need to conduct this study on debt financing effect on quoted Kenyan firms.

In Zambia, Liziwe (2017) performed a case study of Telone private limited and focused on relationship between debt funding and ROA over the period 2015-2016. Both quantitative and qualitative data through 20 sampled questionnaires were used. The study outcomes indicated that debt funding had statistical and significant impacts on ROA of the company. Hence the research recommended that the company should use financing by debt as a last option as the effects proved outweigh advantages of projects funded by debt. This research hence presents a contextual and conceptual gap as it narrowed on a single company and which was also not listed.

Magoro and Abeywardhana (2017) focused on debt capital and its effect on financial performance on South African companies. The study sampled 25 retail and wholesale South African firms for the period of 2011-2015. Using regression analysis secondary data was analysed and outcomes indicated that debt capital both long and short have a negative effects financial performance. Hence the study recommended that managers of firms should make decisions that ensure profit maximization and reduction of costs associated with debt so as to maximize shareholders wealth. The research presents a contextual gap as it focused on retail and wholesale South African firms but this study focus on debt financing effects on the performance financially of quoted firms in Kenya.

Huang and Song (2009) did a research in Shanghai Stock Exchange investigating the influence of capital structure on the performance of listed firms. The researchers established capital structure as measured using long term debt and total obligation has an inverse effect on enactment as indicated by rate of ROA. The authors suggested that the reason for this is that the Chinese market did not have a fully developed equity market

and for that reason firms relied mainly on debt from banks. Another issue that came out is that in China most companies are controlled by the government and hence prefer equity financing in order not to dilute control. In addition, there is absence of strong shareholder rights protection laws. Furthermore, profitable firms need more debt to finance their growth.

Hall (2011) studied the impact of capital structure on the profitability of pharmaceutical companies in Nigeria between 2005 to 2010. A sample of 103 pharmaceutical firms was chosen from 314 pharmaceutical firms. The study utilized the secondary data for analysis. The study likewise utilized several regression models to demonstrate the association between the study variables. The research technique was proper in this study. He concluded that capital structure had irrelevant impact on productivity and value of the pharmaceutical companies in Nigeria.

Locally, Karuma et al (2018) carried out a study on the effect of debt financing on the financial performance of manufacturing firms at NSE for the period 2013- 2017. The targeted study population was the 9 manufacturing firms quoted. While secondary data was being lifted from published financial statements. The study revealed that short-term debt showed significant and positive effect to ROA while long-term debt indicated a positive and significant link to ROA. The study hence recommended that firms should have measures that sustain short-term debt and increase long-term debt financing for efficiency. The research presents a contextual gap as it focused only on the manufacturing sector.

Omollo et al (2018) carried out a study on the effect of debt financing options on the financial performance of firms listed at NSE. The targeted population was 40 quoted non-financial firms over the period of 2009- 2015 and secondary data was collected from published

statements. The research outcomes revealed that long, short and total debt exhibit a negative and significantly statistically effects on ROA but no significant effect on ROE. Therefore the study recommended that financial managers should manage debt levels so as to operate at optimum levels. Kirimi et al (2017) carried out a research on effect of debt finance on financial performance. A causal research design was used on a population target of ten sacco's with secondary nature data being collected from the sacco's financial statements over an 8 year period. The study outcomes exhibited a positive strong relationship between ROE and debt. The research hence recommended that fir manager should endeavor to finance the firms operations with cheap debt so as to fully enjoy the benefits linked with financing by debt. The study presents a contextual gap as it solely focused on Sacco's but this research looked into on firms quoted at the NSE.

Ng'ang'a(2017) examined the effectof debt financing on schools performance in financial terms of privatized secondary schools inKajiado County. A descriptive design for research was adopted to show the link among the variables. Secondary nature data was applied for the period of three years (2014-2016). Data collected was tabulated on a regression model to enhance the analysis through use of SPSS. The research found a positive and insignificant link to the independent variables (debt financing and revenue growth) and dependent variable (financial performance). The study still exhibited that a negative and significant association exists between independent variables (administrative efficiency and operational efficiency) and financialperformance of the private secondary schools at kajiado. The research conclusions stated that debt financing has no effecton schools performance in financial terms. The study presents contextual knowledge gap

since the focus is on private secondary schools in Kajiado only. This study therefore focused on firms listed at NSE.

2.5 Conceptual Framework

The conceptual framework describes the relationship between independent and dependent variables. Therefore this study seeks to show the relationship between independent (debt, firm size, liquidity and asset tangibility) and dependent variable (financial performance) of the study.

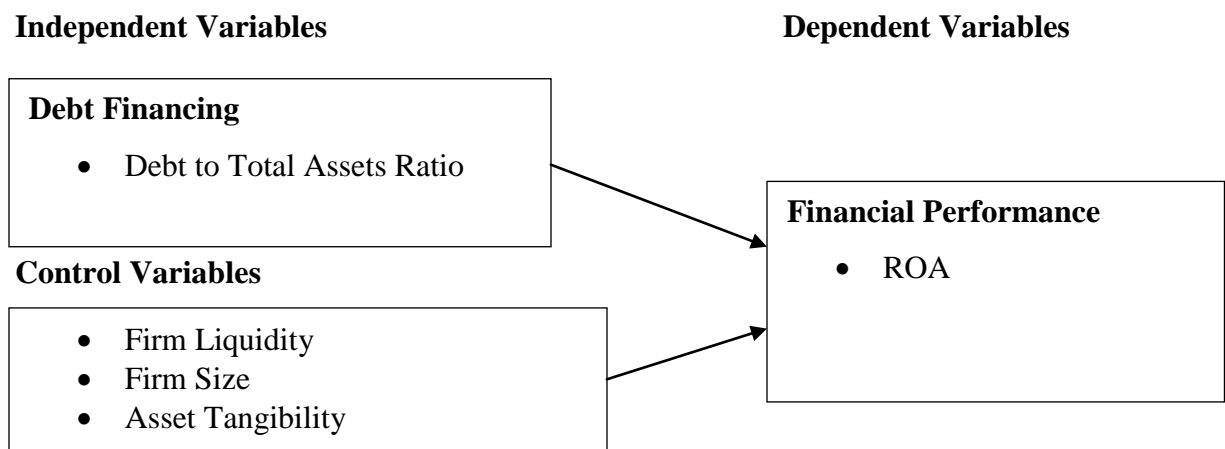


Figure 2.1 Conceptual Model
Source: Researcher, 2019

2.6 Summary of Literature Review

This section outlines the existing literatures on financing by debt and financial performance, determinants of financial performance and theories outlining relationship between the variables. Despite the empirical and theoretical studies on debt financing and financial performance, it is still not conclusive on the relationship between the two variables. The knowledge gap that exists on various works by researchers is also highlighted and the current study seeks to fill the gap by adding on more knowledge on

the area of study. Empirical review on global and local perspective on financing by debt and financial performance has also been done. Both global and local literature has been reviewed so as to identify the existing gaps in the study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines methods of research to be used to objectively determine the relationship between the variables. It also includes research design, the population and data used for the study and analysis criteria.

3.2 Research Design

The study adopted a descriptive design. This approach entails collection of data without tampering with the environmental setting. The choice of this specific design is that a descriptive research design objectively measures and reports relationships as they are (Cooper and Schindler, 2007). A further justification for the choice of descriptive design is that it allows the researcher to obtain results that are naturally out of the free interactions among the study variable without any manipulation.

3.3 Population

For purposes of this study, population of interest consisted of forty one non-money related firms listed. Census study was adopted to enable focus on all 65 listed firms under the following segments in the NSE sector categorization; service and Construction and Allied commercial, Petroleum and Energy and Manufacturing and Allied, Automobile, Agricultural sector and Telecommunication. In this particular study, financial firms listed were not to be examined due to the capital structure regulations. Therefore only 40 non-financial firms were included in the population sample.

3.4 Data Collection

The study used secondary nature data that was extracted from annual published reports submitted to the NSE and CMA for a period of five years (2014-2018). The published annual financial reports were obtained from the annually reports. The research collected data on financial performance (net income, total assets) from the financial statements, which comprised of net income and total assets. While debt, total asset, CA, CL, total assets, fixed assets, and total assets data collected was obtained from financial statements. Data used was for a period of 5 years between 1st January 2014 and 31st December 2018.

3.5 Diagnostic Tests

Several diagnostic tests such as the tests of normality and multicollinearity tests were carried out. To ensure the data collected is free from biasness and one variable data is not related to another variable data, the study conducted a multicollinearity test. Multicollinearity is detected when two variables have same linear relation. The variance of Inflation is used to test multicollinearity. VIF ranging from 1 to 10 indicated absent of multicollinearity while presence of multicollinearity is detected when VIF is more than 10 or less than 1. When the test fails you should standardize the continuous variables by choosing on a standardization method on the regression dialog box. For instance you may choose variable centering approach (Cohen, West & Aiken, 2013). The test for normality was conducted using the skewness and kurtosis statistics. The data in a series does exhibit a normal distribution if it has skewness that is the range of -0.8 to +0.8, and a kurtosis within the range of -3 to +3. (Ghasemi & Zahediasl, 2012).

3.6 Data Analysis

Data analysis includes statistical methods carried out in explaining the relationship between various variables of the study. The study used SPSS 23 for data analysis. The study relied on various regression techniques in evaluating the correlation between the selected variables. The analysis involves figuring out of the various coefficients of correlation in the model to determine the connection.

3.6.1 Analytical Model

The study used multiple regression in conducting out analysis in finding out the outcome between the responsive variable and predictor variables. A responsive variable is the financial performance as the predictor variables are debt financing, firm size, firm liquidity, and asset tangibility.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where;

Y = Financial Performance; measured by ROA (Net Income/ Total Asset)

X₁ = Debt

Financing; measured by debt to asset ratio

X₂ = Firm Liquidity; measured by ratio of current liabilities to current assets.

X₃ = Firm Size; measured by natural log of total assets

X₄ = Asset Tangibility; measured as a ratio of fixed assets to total assets

α = Constant; y intercept that is, the value of y when x is equal to zero

β = Coefficients of the model

ϵ = Error term

3.6.2 Test of Significance

The test for joint significance of all coefficients was done using the F-test while the test for individual coefficient was done using the T-test

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This section provides output of the fieldwork in form of a presentation, interpretation and discussion of the findings. The population was all the 40 firms at NSE but not financial ones. However, only 35 of the 40 firms whose data was readily accessible were analyzed.

4.2 Descriptive Statistics

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Financial Performance	175	-.9622	1.0962	.0483	.16951
Debt Financing	175	.0006	6.8831	.5319	.5755
Firm Liquidity	175	.0290	25.1732	2.6792	3.3637
Firm Size	175	4.1037	9.3272	6.8700	1.0036
Asset Tangibility	175	.0000	2.9000	.6201	.3579

Source: Researcher 2019

The findings on the above table show that mean ROA ratio of the listed non-financial companies is 0.048260, mini and maxi being - 0.9622 and 1.0962 respectively. In the table, it is also revealed that the average debt financing ratio for the companies is 0.531970, mini and maxi values being 0.0006 and 6.8831 respectively. The findings also indicate that the average firm liquidity for the firms was 2.679237 with the minimum being .0290 and the maximum being 25.1732 respectively. In addition, the table shows that the average firm size was 6.870031 with a minimum and maximum 4.1037 and 9.3272 respectively and asset tangibility average was 0.620114.

4.3 Diagnostic Tests

4.3.1 Test for Normality

The skewness and kurtosis statistic tests were used to assess for normality of the data.

Table 4.2: Test for Normality

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Financial Performance	175	.418	.184	1.252	.365
Debt Financing	175	0.917	.184	2.584	.365
Firm Liquidity	175	0.360	.184	1.989	.365
Firm Size	175	-.231	.184	.378	.365
Asset Tangibility	175	2.639	.184	13.032	.365

Source: Researcher 2019.

Table 4.2 exhibits the normality test. The test for normality was conducted using the skewness and kurtosis statistics. In normally distributed data skewness is in the range of -1 to + 1, and a kurtosis within the range of -3 to +3. From the skewness and kurtosis statistics of the variables displayed in Table 4.2 it is evident that the financial performance, firm size and liquidity data series is normally distributed.

4.3.2 Test for Multicollinearity

Table 4.3: Test for Multicollinearity

The study used the variance inflation factors and the tolerance levels to assess multicollinearity.

Model		Collinearity Statistics	
		Tolerance	VIF
A. Dependent Variable: Financial Performance	Debt Financing	.741	1.349
	Firm Liquidity	.847	1.180
	Firm Size	.902	1.109
	Asset Tangibility	.789	1.267

Source: Researcher 2019

The results show that the VIF are less than 10, which signify no multicollinearity.

4.4 Correlation Analysis

Table 4.4: Correlations Analysis

Correlations						
		Financial Performance	Debt Financing	Firm Liquidity	Firm Size	Asset Tangibility
Financial Performance	Pearson Correlation	1				
	Sig. (2-tailed)					
Debt Financing	Pearson Correlation	-.208**	1			
	Sig. (2-tailed)	.006				
Firm Liquidity	Pearson Correlation	.205**	-.282**	1		
	Sig. (2-tailed)	.007	.000			
Firm Size	Pearson Correlation	-.030	.012	-.270**	1	
	Sig. (2-tailed)					

	Sig. (2-tailed)	.692	.874	.000		
Asset Tangibility	Pearson Correlation	-.092	.438**	-.115	.133	1
	Sig. (2-tailed)	.227	.000	.129	.079	

Source: Researcher 2019

The above table shows that debt financing had a weak negative correlation that was significant ($r = -0.208$, $p = 0.006$). Firm liquidity had a significant positive and weak correlation ($r = 0.205$, $p = 0.007$). Firm size had a weak negative but insignificant correlation ($r = -0.030$, $p = 0.692$). While asset tangibility had a strong negative but insignificant correlation ($r = -0.092$, $p = 0.227$).

4.5 Regression Analysis

The regression equation describes the relationship between two variables and in this model we look at the relationship between the independent variables: debt financing, firm liquidity, firm size and asset tangibility, with the dependent variable: financial performance.

4.5.1 Model Summary

Table 4.5: Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Durbin-Watson
1	.258 ^a	.067	.045	.1656838	1.201
A. Predictors: (Constant), Asset Tangibility, Firm Liquidity, Firm Size, Debt Financing					
B. Dependent Variable: Financial Performance					

The model summary findings indicate that the independent variables explain 6.7% of the disparity in the dependent variable as indicated by the coefficient of determination value

(R²) of 0.067. The correlation coefficient value (R) of 0.258 shows a weak connection among the independent and dependent variables. The Durbin statistics value is 1.201, which is an indication that there is no serial correlation in the data.

4.5.2 Analysis of Variance

Table 4.6: Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.333	4	.083	3.036	.019 ^b
	Residual	4.667	170	.027		
	Total	5.000	174			
A. Dependent Variable: Financial Performance						
B. Predictors: (Constant), Asset Tangibility, Firm Liquidity, Firm Size, Debt Financing						

Source: Researcher 2019.

The table above exhibits that the regression equation is significant and a good predictor of the connection between the dependent variable and independent variable. This indicated by the p value of 0.019, which is less than 0.005, and the F statistics of 3.036.

4.5.3 Regression Coefficients

Table 4.7: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.033	.096		.349	.728
	Debt Financing	-.047	.025	-.160	-1.855	.065
	Firm Liquidity	.008	.004	.164	2.034	.044
	Firm Size	.003	.013	.017	.212	.832
	Asset Tangibility	-.002	.040	-.005	-.063	.950

The coefficient results on the above table indicate that the association among debt financing and financial performance is negative but insignificant. The results also show that the connection among firm liquidity and financial performance is positive and

significant, while relationship between firm size and financial performance is positive but insignificant. Further asset tangibility has a negative and insignificant relationship.

4.6 Discussion of the Findings

The study found a negative and significant connection linking debt financing financial performance of non-money companies listed at the NSE. Therefore an increase in debt will result to a decrease in ROA of the listed non-financial firms. In similarity, Aziz (2019) discovered that debt funding has a negative significant impact on the performance of non-financial firms in Pakistan. Sajid, Tahir and Sabir (2015) also found that that financial debt had a significant and negative effect on investment decision of listed companies in Pakistan. In contrast, Karuma et al (2018) carried out a research on effect of debt financing on financial performance of manufacturing firms at NSE found that both short and long-term loans have a positive effect on ROA .

The research established a significant and positive relationship between firm liquidity and financial performance of nonfinancial firms listed at the NSE. This means that an increase in liquidity results to an increase in financial performance of listed non-financial firms. According to Odit and Chittoo (2011), illiquidity can lead to struggles when honoring the existing obligations, this has impacts on the credit merit and performance of a firm.

The findings revealed a negative but insignificant relationship between firm size and financial performance. Hence indicating that a unit increase in firm size will lead to decrease in financial performance although not in a big way. Akbas and Karaduman (2012) state that large firms have bargaining power over the supplier and distributors through the experience curve and setting prices above their competitive market levels and

this makes it easier for these firms to finance their investment through debt which could result to unreasonable debt levels that affect performance.

The investigation discoveries set up a negative and inconsequential connection between resource substantial quality and firm execution. Thus, demonstrating that an expansion in resource substantial quality will prompt a lessening in monetary execution of recorded non-budgetary firms despite the fact that with insignificant effects. This could be because large firms on asset basis can easily access fixed assets on debt due to tax benefits thus impacting negatively the financial performance (Akbas & Karaduman, 2012).

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section presents a summary and the conclusions of this research and recommendations for the study. It as well indicates the limitations of the paper and suggestions concerning new study.

5.2 Summary of Findings

The study aimed at establishing between debt financing relation with performance of the sampled. This study used debt financing as the independent variable while financial performance was used as the dependent variable. Firm assets, liquidity and asset tangibility were used as control variables. The study targeted a sample of 40 nonfinancial firms but obtained complete data from 35 quoted non-financial firms.

The findings of descriptive statistical analysis established that mean ROA is 0.048260, mini and max being - 0.9622 and 1.0962 respectively. It is also revealed that the average debt financing ratio for the companies is 0.531970, mini and maxi values being 0.0006 and 6.8831 respectively. The findings also indicate the average firm liquidity for the firms was 2.679237 with the minimum being .0290 and the maxi being 25.1732 respectively. In addition, it shows that the average firm size was 6.870031 with a minimum and maximum 4.1037 and 9.3272 respectively and asset tangibility average was 0.620114 with the mini and maxi being 0.0000 and 2.9000 respectively.

The correlation findings established that that debt financing had a weak negative correlation that was significant ($r = - 0.208$, $p = 0.006$). Firm liquidity had a significant

positive and weak correlation ($r = 0.205$, $p = 0.007$). Firm size had a weak negative but insignificant correlation ($r = -0.030$, $p = 0.692$). While asset tangibility had a strong negative but insignificant correlation ($r = -0.092$, $p = 0.227$).

The regression summary statistics established that the independent variables explain 6.7% of the disparity in the reliant variable as indicated by the coefficient of determination value of 0.067. The correlation coefficient value of 0.258 showed a weak connection among the independent and dependent variables. The Durbin statistics value is 1.201, which is an indication that there was no serial correlation in the data.

5.3 Conclusions

The study findings revealed that there is a significant negative relationship existing between debt financing and ROA. The study hence concludes that increase in debt financing affects by lowering the financial performance of listed firms.

The study also revealed that firm liquidity had a significant and optimistic relationship of the non-financial firms listed at the NSE. This research then concludes that an increase in liquidity results to increased ROA of listed firms as high liquidity levels indicate the firms are able to meet their due obligation. This therefore raises the confidence of investors and creditors who deal with the firm.

The study results revealed that firm size had a negative but insignificant relationship. This study hence concludes that consistent increase in sizes of listed firm leads to reduced financial performance in the long run as the huge firms will tend to use debt to finance their operations due to their reputations.

The examination discoveries further settled that benefit substantial quality had a solid negative however unimportant association with money related execution of non-

budgetary firms recorded at the Nairobi Securities Exchange. This examination henceforth infers that expanded procurement of fixed resource in connection complete resources decreases the monetary presentation of recorded firms as the organizations could be utilizing obligation in the obtaining subsequently influencing productivity over the long haul.

5.4 Recommendations

The study concluded that increase in debt financing lowers the ROA. The study thus recommends that the management of listed firms should ensure they hold optimum debt levels to ensure that they do not affect other functions of the firm.

Based on the research findings the research concluded that an increase in liquidity results to increased financial performance of listed firms as high liquidity levels indicate the firms are able to meet due obligation. The study hence recommends that managers of listed firms should ensure that the liquidity ratios of the firms are high over the years by so as to attract investors confidence.

The research concluded that that consistent increase in sizes of listed firm leads to reduced financial performance in the long run as the huge firms will tend to use debt to finance their operations due to their reputations. Hence, the study recommends that the management of listed firms should balance their business growth against financial performance so as to strike a balance. Since profit maximization is one of the goals of a firm.

The research concluded that sales growth had no significant impact on investments by non-financial firms. The study however recommended management of non financial firms should ensure that the maximize sales since sales ensures that the firm is profitable.

The study made the conclusion that concludes that increased acquisition of fixed asset in relation total assets reduces the financial performance. Hence, the study recommended that management of listed firmsshould ensure balance between fixed asset acquisition and profitability by reducing fixed assets acquisition by debt.

5.5 Limitations of the Study

Thisstudy put focus on non-financial companies listed at the NSE thus thefindings are limited to the sampled non-financial firms andmay not be applied or be a representative of the financial firms and all listed firms. In addition, the findings are limited to the considered research variables, which included firm performance, debt financing, firm liquidity, firm size and asset tangibility the non-financial firms. This could have limited the outcomes as additional of other variables could alter the findings.

Further, the findings are applicable within the research period, which was considered by the study with the scope of this study being five years period (2014 to 2018). Therefore, the results may not hold for a longer study period which would otherwise capture major events not included in this study hence resulting into more reliable outcomes.

This study solely relied on secondary data to reach at the discussed conclusion. Secondary data was employed because it is an aggregate of experts efforts in consolidating the data for the public, investors and regulators consumption. However, an assessment of the same study using primary data and consulting with experts in the firms might yield different results.

5.6 Suggestion for Further Research

The model summary results established that the considered variables only explained 4.5% of the variation in financial performance by non-financial firms. This indicates that there

are factors, which affect financial performance. This study thus recommends an additional study on the factors affecting the ROA made by firms listed at the Kenyan securities market using different or additional variables. This study therefore recommends an additional research on debt financing effects on specific segments at the NSE.

Further, the study recommends an additional research of the effect of firm specific factors on financial performance of firms listed at NSE. A research study in which primary data collection tools such as structured interviews and in depth questionnaires are employed for the non-financial firms is suggested as a complement to this study as primary data may yield different results. This study focused on a five year period (2014 to 2018) owing to the fact that it was the most recent annual data. Further studies in this area may use data for longer periods and compare the outcomes.

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APPENDICES

Appendix I: Listed Firms at Nairobi Securities Exchange

AGRICULTURAL

1. Eaagads Ltd
2. Kapchorua Tea
3. Kakuzi
4. Limuru Tea
5. Rea Vipingo Plantations Ltd
6. Sasini Ltd Ord 1.00
7. Williamson Tea Kenya Ltd

AUTOMOBILES AND ACCESSORIES

8. Car and General (K) Ltd

COMMERCIAL AND SERVICES

9. Express Ltd
10. Sameer Africa PLC
11. Kenya Airways Ltd
12. Nation Media Group
13. Standard Group Ltd
14. TPS Eastern Africa (Serena) Ltd
15. Scangroup Ltd
16. Uchumi Supermarket Ltd
17. Longhorn Publishers Ltd
18. Atlas Development and Support Services
19. Deacons (East Africa) Plc
20. Nairobi Business Ventures Ltd

CONSTRUCTION AND ALLIED

21. Athi River Mining
22. Bamburi Cement Ltd
23. Crown Paints Kenya PLC.
24. E.A.Cables Ltd

25. E.A.Portland Cement Ltd

ENERGY AND PETROLEUM

26. KenolKobil Ltd

27. Total Kenya Ltd

28. KenGen Ltd

29. Kenya Power & Lighting Co Ltd

30. Umeme Ltd

MANUFACTURING AND ALLIED

31. B.O.C Kenya Ltd

32. British American Tobacco Kenya Ltd

33. Carbacid Investments Ltd

34. East African Breweries Ltd

35. Mumias Sugar Co. Ltd

36. Unga Group Ltd

37. Eveready East Africa Ltd

38. Kenya Orchards Ltd

39. Flame Tree Group Holdings Ltd

TELECOMMUNICATION AND TECHNOLOGY

40. Safaricom PLC

Appendix II: Data Collection Form

		2014	2015	2016	2017	2018
Financial Performance	Net Income					
	Total Assets					
Liquidity	Current Assets					
	Current Liabilities					
Asset Tangibility	Fixed Assets					
	Total Assets					
Debt Financing	Total Debt					
	Total Asset					
Firm Size	Natural Log of Total Assets					

Appendix III: Data

		Y	X1	X2	X3	X4
Express Kenya Ltd	2014	-0.16	0.62	0.59	7.88	0.84
	2015	-0.14	0.73	1.13	8.04	0.75
	2016	-0.26	0.94	0.85	7.99	0.74
	2017	-0.25	1.19	0.60	7.99	0.73
	2018	-0.22	1.43	0.62	7.88	0.76
Sameer Africa Plc	2014	-0.02	0.34	2.52	6.59	0.26
	2015	0.00	0.34	2.21	6.57	0.26
	2016	-0.20	0.44	1.58	6.52	0.30
	2017	0.00	0.38	1.55	6.47	0.43
	2018	-0.20	0.56	0.90	6.41	0.50
Kenya Airways Ltd	2014	-0.02	0.81	0.52	5.17	0.80
	2015	-0.14	1.03	0.39	5.26	0.77
	2016	-0.16	1.23	0.25	5.20	0.81
	2017	-0.04	0.97	2.52	5.17	0.82
	2018	-0.06	1.02	2.91	5.14	0.80
Longhorn Publishers Ltd	2014	0.13	0.42	1.75	5.87	0.27
	2015	0.10	0.45	1.50	5.84	0.33
	2016	0.06	0.49	1.49	6.27	0.27
	2017	0.07	0.49	1.37	6.27	0.33
	2018	0.08	0.57	1.21	6.38	0.31
Nation Media Group Ltd	2014	0.12	0.00	2.37	4.30	0.00
	2015	0.18	0.00	2.10	4.10	0.00
	2016	0.14	0.00	2.07	6.64	0.00
	2017	0.12	0.00	2.02	6.65	0.00
	2018	0.10	0.00	1.95	6.61	0.00
Standard Group Ltd	2014	0.05	0.46	1.22	7.20	0.64
	2015	-0.07	0.57	0.95	7.20	0.61
	2016	0.05	0.53	1.17	7.22	0.55
	2017	-0.05	0.58	0.85	7.24	0.58
	2018	0.06	0.58	0.91	7.25	0.57
TPS Eastern Africa Ltd	2014	0.02	0.35	0.80	7.20	0.86
	2015	-0.02	0.39	1.04	7.20	0.85
	2016	0.01	0.44	1.63	7.22	0.80
	2017	0.01	0.48	1.08	7.24	0.85
	2018	0.01	0.48	0.43	7.25	0.88
WPP Scangroup Ltd	2014	0.05	0.36	2.99	7.12	0.18
	2015	0.04	0.31	3.39	7.10	0.19
	2016	0.03	0.35	2.89	7.13	0.19
	2017	0.03	0.35	2.87	7.14	0.21

	2018	0.04	0.41	2.66	7.16	0.22
Eaagads Ltd	2014	0.03	0.07	3.32	5.67	0.77
	2015	0.01	0.07	2.73	5.63	0.82
	2016	0.00	0.03	5.73	5.88	0.85
	2017	0.02	0.01	12.83	5.97	0.84
	2018	-0.07	0.01	8.77	5.97	0.87
Kapchorua Tea Co. Ltd	2014	0.07	0.28	5.10	6.29	0.68
	2015	-0.01	0.28	5.63	6.30	0.68
	2016	0.05	0.29	4.26	6.33	0.58
	2017	-0.03	0.30	3.46	6.31	0.61
	2018	0.07	0.33	2.92	6.40	0.56
Kakuzi	2014	0.04	0.23	7.15	6.59	0.67
	2015	0.12	0.24	4.44	6.66	0.63
	2016	0.11	0.24	4.92	6.70	0.60
	2017	0.10	0.25	3.90	6.76	0.58
	2018	0.08	0.21	5.94	6.77	0.61
Limuru Tea Co. Ltd	2014	0.02	0.26	18.84	5.53	0.57
	2015	0.01	0.27	11.13	5.53	0.48
	2016	-0.07	0.27	10.11	5.45	0.49
	2017	-0.08	0.28	6.64	5.42	0.46
	2018	0.01	0.28	5.89	5.43	0.41
Rea Vipingo Plantations Ltd	2014	1.10	0.22	6.50	5.51	0.60
	2015	0.30	0.22	9.50	6.69	0.36
	2016	0.35	0.19	13.88	6.68	0.41
	2017	0.20	0.21	14.20	6.66	0.44
	2018	0.27	0.26	7.61	6.71	0.44
Sasini Ltd	2014	0.38	0.19	2.33	7.17	0.92
	2015	0.04	0.15	4.40	7.10	0.87
	2016	0.04	0.13	5.28	7.12	0.77
	2017	0.03	0.14	4.24	7.12	0.77
	2018	0.03	0.13	5.76	7.11	0.80
Williamson Tea Kenya Ltd	2014	0.09	0.23	8.44	6.93	0.68
	2015	-0.03	0.23	8.67	6.93	0.68
	2016	0.05	0.25	4.96	6.95	0.62
	2017	-0.03	0.27	3.47	6.92	0.64
	2018	0.05	0.28	2.99	6.98	0.62
Safaricom	2014	0.17	0.33	0.74	8.13	0.79
	2015	0.20	0.38	0.62	8.20	0.77
	2016	0.54	0.28	0.65	7.85	0.82
	2017	0.61	0.35	0.46	7.90	0.84
	2018	0.33	0.31	0.52	5.22	0.84

BAT	2014	0.23	0.55	1.26	7.26	0.52
	2015	0.27	0.51	1.50	7.27	0.51
	2016	0.22	0.52	1.42	7.34	0.52
	2017	0.16	0.56	1.32	7.31	0.51
	2018	0.22	0.49	1.59	7.26	0.50
B.O.C Kenya	2014	0.10	0.24	2.14	6.36	0.49
	2015	0.06	0.26	2.06	6.37	0.46
	2016	0.06	0.24	2.26	6.35	0.46
	2017	0.02	0.28	1.95	6.35	0.46
	2018	0.03	0.29	1.88	6.33	0.45
Carbacid Investments Ltd	2014	0.19	0.02	25.17	6.40	0.40
	2015	0.13	0.17	4.51	6.47	0.62
	2016	0.12	0.13	7.09	6.49	0.61
	2017	0.11	0.12	7.01	6.52	0.69
	2018	0.28	0.10	9.43	6.03	0.68
EABL	2014	0.11	0.86	0.72	7.80	0.68
	2015	0.14	0.80	1.02	7.83	0.62
	2016	0.16	0.83	0.77	7.82	0.67
	2017	0.13	0.82	1.01	7.82	0.67
	2018	0.10	0.84	0.83	7.85	0.70
Mumias	2014	-0.11	0.55	0.41	7.37	0.82
	2015	-0.23	0.70	0.19	7.31	0.88
	2016	-0.18	0.72	0.18	7.43	0.93
	2017	-0.28	0.97	0.11	7.38	0.92
	2018	-0.96	1.91	0.03	7.20	0.96
Unga Ltd	2014	0.06	0.61	2.52	6.90	0.46
	2015	0.07	0.61	2.37	6.94	0.58
	2016	0.06	0.56	2.30	6.92	0.44
	2017	0.00	0.69	1.66	6.97	0.43
	2018	0.08	0.65	2.14	7.00	0.51
Eveready	2014	-0.19	0.77	1.33	5.97	0.18
	2015	-0.05	0.49	0.87	6.18	0.58
	2016	-0.26	0.55	0.45	5.93	0.75
	2017	0.32	0.29	2.69	5.89	0.25
	2018	-0.20	0.24	2.54	5.76	0.44
K. Ochards	2014	0.03	1.45	1.77	7.70	0.42
	2015	0.04	0.92	2.08	7.90	0.57
	2016	0.04	0.89	2.02	7.95	0.47
	2017	0.05	0.86	1.71	8.03	0.42
	2018	0.01	0.79	2.11	8.06	0.37
Flame Tree Group	2014	0.15	1.00	1.55	9.02	0.25

	2015	0.13	1.00	1.64	9.14	0.26
	2016	0.10	0.53	1.53	9.18	0.33
	2017	0.02	0.56	1.29	9.23	0.47
	2018	0.02	0.48	1.14	9.33	0.62
East African Cables	2014	0.04	0.57	1.30	6.90	0.51
	2015	-0.09	0.62	0.93	6.92	0.65
	2016	-0.08	0.66	0.67	6.88	0.70
	2017	-0.09	0.73	0.60	6.85	0.66
	2018	-0.09	0.77	0.26	6.82	0.83
Bamburi	2014	0.10	0.29	2.30	4.61	0.62
	2015	0.14	0.29	2.36	4.62	0.57
	2016	0.14	0.27	2.70	4.61	0.53
	2017	0.04	0.30	1.66	4.67	0.71
	2018	0.01	0.34	1.32	4.70	0.75
Portlands	2014	-0.02	0.58	0.90	7.20	0.80
	2015	0.31	0.40	0.84	7.36	0.86
	2016	0.15	0.36	0.43	7.44	0.92
	2017	-0.05	0.38	0.31	7.44	0.93
	2018	0.21	0.35	0.25	7.58	0.95
Crown Paints Kenya PLC	2014	0.01	0.65	1.15	6.59	0.26
	2015	0.01	0.70	1.11	6.66	0.27
	2016	0.03	0.69	1.16	6.70	0.25
	2017	0.04	0.70	1.19	6.77	0.23
	2018	0.03	0.81	1.01	6.74	0.29
KenKobil	2014	0.05	0.69	0.95	7.38	1.11
	2015	0.12	0.51	1.24	7.24	0.77
	2016	0.10	1.22	0.83	7.38	0.65
	2017	0.10	1.19	0.87	7.38	0.52
	2018	0.07	0.96	1.44	7.34	0.44
kengen	2014	0.11	6.88	1.10	4.40	2.90
	2015	0.03	0.00	0.95	8.53	2.27
	2016	0.02	0.53	1.20	8.56	2.00
	2017	0.02	0.51	1.48	8.58	1.90
	2018	0.02	0.50	1.50	8.58	1.83
Total	2014	0.04	0.50	1.49	7.51	0.32
	2015	0.05	0.49	1.52	7.53	0.31
	2016	0.06	0.47	1.65	7.56	0.30
	2017	0.07	0.44	1.74	7.58	0.30
	2018	0.06	0.42	1.77	7.59	0.30
KPLC	2014	0.03	0.67	1.03	8.34	0.77
	2015	0.03	0.70	1.64	8.44	0.76

	2016	0.02	0.78	0.98	8.47	0.84
	2017	0.02	0.82	0.87	8.52	0.81
	2018	0.01	0.00	0.51	8.53	0.84
UMEME	2014	0.06	0.74	1.03	6.08	0.60
	2015	0.06	0.72	1.01	6.25	0.77
	2016	0.05	0.73	0.87	6.34	0.79
	2017	0.02	0.74	0.60	6.37	0.82
	2018	0.05	0.71	0.45	6.39	0.86
Car & Genaral	2014	0.03	0.65	1.20	6.91	0.38
	2015	0.01	0.66	1.06	6.95	0.41
	2016	0.01	0.67	1.01	6.99	0.42
	2017	0.01	0.64	1.03	6.97	0.50
	2018	0.02	0.65	0.99	7.01	0.51

