

**THE EFFECT OF CAPITAL STRUCTURE ON PERFORMANCE OF
COMMERCIAL AND SERVICE FIRMS LISTED AT THE
NAIROBI SECURITIES EXCHANGE**

SUBMITTED BY:

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DECLARATION

This Research project is my own original work and has never been presented in any other University for any academic award.

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

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DEDICATION

I dedicate this project to members of my Family. To my parent; Mr. Moses Obiero and Mrs. Rose Obiero whose passion for education, wise counsel and indeed investing in my education. I thank you for being there for me.

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ABBREVIATIONS

CMA	Capital Markets Authority
LTD	Long term debt to total Assets
MFI	Micro Finance Institutions
MM	Modigliani and Miller
NSE	Nairobi Securities Exchange
ROA	Return on Assets
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Sciences
STD	Short term debt to total assets
TD	Total debt to total assets
USA	United States of America

ABSTRACT

This study sought to examine effect of capital structure on performance in financial perspective of commercial and services firms listed at NSE. Return on Asset was used as the measure of performance of the firm while Debt ratio, Liquidity, firm size and solvency margin represented capital structure indicators. The study covered the firms listed under commercial and services firms sector at NSE from the year 2011 to the year 2015. A descriptive research was adopted. Data was collected from the firms consolidated financial statements. The study population comprised of all ten listed firms under the commercial and services sector at NSE from 2011 to 2015. Data was then analyzed using linear regression models using SPSS to establish if there is any effect of capital structure on performance in financial perspective. Pearson correlation coefficients between the variables revealed that there exists a negative correlation between log of sales and debt ratio. Relationship between current ratio and leverage was found to be weak. The study also showed that there exist a negative correlation between debt ratio and solvency ratio. The findings also reveal that there exists strong positive relationship between current ratio and solvency ratio. The model summary revealed that the independent variables: debt ratio, liquidity, size and solvency margin have a correlation of 64.1% with dependent variable which implies that they are significant predictors of firm performance of commercial and services firms listed at NSE.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The term capital structure means a mix of both equity and debt to finance the firm. Capital structure can also be defined ways a firm or company finances day to day operations and overall growth through the use of various capital sources (Sheifer & Vishny, 1997). Managers strive to maintain a capital structure that maximizes the shareholder's wealth while minimizing financial and business risks. A situation whereby the cost of financing and bankruptcy is minimal can be referred to an optimal capital structure.

Modigliani & Miller (1958), from analysis of two scholars and professors led to the proposition of irrelevance theory of capital structure. Irrelevance theory of capital structure argued that there is no connection between the firm value and mix of its funding sources. Based on limitations and assumptions of this theory, a later research study suggested that debt and equity mix available to a firm affects its financial performance.

Interest on debt is tax allowable and deductible in Kenya hence financing the entire of firm's operation by use of debt will benefit the firm on one side as interest on debt is tax exempt whereas it will have an adverse effect as the firm will be under the control of the creditors as they will have a large stake of control. Using debt as a funding source will increase the agency conflict and cost between the debt holders and shareholders.

There is no consensus on the elements that significantly affect a firm's capital structure hence optimal capital structure determination has become a big challenge which is

beyond a number of theories of though large number researchers are in agreement on the institutional and economic environment in which a firm operates in affects the capital structure of a firm significantly (Lokong, 2011).

1.1.1 Capital Structure

Abor (2005) described capital structure as a precise mix of debt and equity which is normally used to finance the firm's operations. Abor (2005) further added that a firm can select among several alternative sources of capital with different mix of securities. This definition provides its' self-review to firms considering the fact that it emphasizes on specific proportion of debt and equity used for financing organizations.

Naveed et al (2010) defined the capital structure concept as the relationship between the various forms of financing. Hence, the term signifies the proportion between equity and debt capital that some firm targets to attain as part of the firm's objectives. However, they did not propose clearly on the proportion of the capital structure concept.

Ross, Westerfield, Jaffe & Kakani (2009) presented the pie model which gives the relation between value of a firm and various providers of funds, they also pointed out that the amount of debt a firm chooses relative to equity defines its capital structure. Ross et al (2009) pointed out that such a choice is a strategic one which has many implications on the firm, therefore it should be well managed to ensure that the ultimate interest of the shareholder and other stakeholders of the company are served.

The term capital structure means a mix of both equity and debt to finance a firm. The Irrelevance of capital structure and benefit of tax shield on debt resulted to development of more literature in this area (Modigliani & Miller, 1963) studies on.

In agreement with Jensen & Meckling (1976), optimal capital structure of a firm involves trade-off among effects of Corporation taxes, personal taxes and agency costs.

Ownership and management separation in a business organization can lead to a situation where managers do not put their best effort forward, indulge in perquisites, make decisions that suit their goals or otherwise failing to follow shareholders' wealth maximization goal. The agency effect of this ownership separation and control is a loss of value to shareholders as managers maximize their goals rather than those of the firm. Agency cost theory suggests that agency costs may be reduced by the capital structure choice.

With reference to the trade-off approach, a trade off the benefits and drawbacks of debt, it is possible to establish an optimal debt level which will decrease the cost of capital and contribution to economic value creation. The optimal mix of debt and equity introduces an element of capital structure balance. Firms that use debt can not only get advantage from tax shield benefits derived from tax being deductible and allowable hence reducing obligations which are financial in nature but can also reduce asymmetry of information and control managerial discipline with regards to the investment policy of the firm (Myers, 1984).

Debt financing ensures that managers promote only those projects that can guarantee earnings that are sufficient to cover the debt payments. Debt represents an indirect means of control and discipline of management behavior by constraining the tendency to use operational cash flow on personal interest or in an inefficient manner, in that interest

payments and capital payoffs must be taken care of first. The capital structure determines value of the firm and its performance by reducing conflicts of interest that may emerge between the owners and creditors and bankruptcy related costs (Bhagat and Jefferis, 2002).

1.1.2 Firm Performance

Firm performance is a measure of efficiency a firm utilizes its short term and long term assets to generate revenues in its primary mode of doing business. The term performance refers to the overall measure of general financial standing of a firm over a specific period of time and it is commonly used for comparison of firms in the same industry or comparison of industries in aggregate. Line items such as total revenue from a firm's operating activities, cash flow from operations, operating income among others can be used. Furthermore, an interested party such as a financial analyst may look keenly into the financial reports and analyzes marginal rates growth and reduction in debt (Titman and Wessel, 2008).

Financial performance is also firm's ability to generate resources, from its daily procedures for a certain time period. Financial performance may also refer to the firm's ability to make good use their resources in an effective and efficient manner for achievement of the firm's objectives and goals (Warsame, 2016).

According to Kagoyire and Shukla, (2016) financial performance is the firm's ability to efficiently operate, be more profitable, to grow and survive for a long period of time. All organizations strive to utilize its resources effectively to achieve a high performance level especially in financial terms. Thus, financial performance is the outcome of any of many

different activities undertaken by an organization (Fujo & Ali, 2016).

The universal ultimate measure and evaluation of business financial performance is profits and it takes the form of the final reports and accounts of the company. The use of profits is beneficial in measuring the efficiency and effectiveness of various functions of the business (marketing, engineering, production) but can also compare various companies or firms. As per Sunder and Myers (2009), organizational business performance mainly encompasses specific three firm's areas and outcomes that include financial performance, performance of product market and returns to shareholders.

A firm's performance is a broad term. Hansen & Wernerfelt (1989) affirms that in policy literature of business, there are two main streams of research about determinants of firm performance. The first one is primarily based on economic tradition while the second one is based on the behavioral and sociological paradigm. The first one emphasizes on the importance of the external factors of the market in determination of firm's success. The second one is in support of firm factors and their fit to the environment as the main determinants of firm's success. Moreover, a number of implications can be drawn for scholars with respect to firm's performance measurement.

According to Lindow (2013) using multiple firm performance measures is beneficial. Performance could also be measured through productivity which is the ratio between outputs and inputs (Syverson, 2013).

Any action of an entrepreneur should at every time aim at enhancement of the firm's value whether in long or short term. Though arguments for corporate success are unending, there are innumerable factors that influence or drive the firm's success without

consideration of how they are measured (Faden, 2013). Consequently, firm's managers ought to be aware the relationship of the key drivers of the firm and how they affect the firm's performance.

Crowther (2002) states that the reason why shareholders are more interested and willing to tolerate nonprofit making activities which can significantly reduce the market performance of the stock because the factors that contribute to firms' performance are diverse in terms of definition, dimensionality and measurement. Despite this, as a going on concern a firm should always seek to increase its value in either the short or the long term

1.1.3 Capital Structure and Firm Performance

In many countries especially developing ones, the capital structure decision is key because the firms operate in a dynamic and challenging economic conditions and environment. These firms may issue various securities in a number of combinations with the goal of maximizing the firm value. The capital structure adopted by a firm is crucial because of its impact on firm performance in the competitive business environment. Whereas there are many studies on this topic of capital structure, there is no consensus on its impact on firm financial performance. (Barton & Gordon, 1987).

The studies that report a negative association between performance and the capital structure seem to be in line with pecking order theory in contrast to a tradeoff theory. This seems to be a simplistic view of effect of capital structure on a company's performance.

In practice, most profit making companies tend to retire debt and maintain low leverage, whereas most loss-making companies have high debt levels and therefore a higher leverage. This brings out the fact that high performance may reflect the growth aspect of firms. The dynamic trade-off theory contrasts the static trade-off theory by arguing that leverage and financial performance are negatively related (Frank and Goyal, 2007).

1.1.4 Commercial and Services Firms Listed at Nairobi Securities Exchange

Commercial and service industry is a major player in Kenyan economic growth and development through creation of employment opportunities, increasing GDP and earnings from foreign exchange for largest part of the post-independence period (UNCTAD, 2008). The contribution of these two sectors to the country's economy has been even larger, with a rise of 10 percent from 55 percent in 1980 to 65 per cent by 2006 in its share of total wage employment (CBK, 2014). The key contribution of the services segment to the Kenyan economy is very important to trade balance. The annual export of services account for around 50% for the period since 1980 (UNCTAD, 2008).

To increase their profitability, commercial and services firms should efficiently manage their capital structure components in order to minimize costs and maximize profits in their operations. Decisions on capital structure play a key role in overall firm strategy in order to enhance shareholder firm value in both commercial and services firms (Siddiquee, Khan, Shaem & Mahmud, 2009).

Determining the optimal composition and level of long term debt and specific short term debt relative to equity can enable a commercial and service firm to gain competitive advantages over its rivals (Haq & Zaheer, 2011).

Commercial and services firms that manage capital structure efficiently aims to ensure an optimum balance between profitability and risk (Saccurato, 1994). Recent activities by these firms indicate their awareness on role of capital structure on performance of the firm.

The additional issuance of new shares by Atlas Development and Support Services Limited which shall be cross-listed in both the NSE and London Stock Exchange and rights issue that was further approved for Longhorn Publishers Limited indicate the firms are sensitive on the importance of decreasing leverage and therefore risk (CMA, 2016). The success of commercial and service sector heavily depends on the effective skills of financial managers in making optimal capital structure decisions.

1.2 Research Problem

Empirical researches conducted to establish effect and relationship of capital structure on firm's performance in financial perspective first includes the historical work of Modigliani & Miller (1963) irrelevance theory of capital structure was later modified whereby they argued that capital structure matters most in determination of firm's value. This theory was premised on the argument and case that as a result of using debt you enjoy tax shield. Based on this assumption, most firms would prefer for a wholly financed capital structure. The optimal capital structure is a very difficult decision for finance managers to make (Noreen, 2013). If wrong combination of financing mix is adopted; survival and firm's performance may be affected in a negative way. Growth and survival needs resources but there is a limitation in financing these resources.

Abor (2005) described capital structure as a precise mix of equity and debt that determines firm's funding profile. From strategic management standpoint, this is a very critical issue because it is connected with a firm's capacity to cater for various stakeholders' demands (Roy and Minfang, 2000). A proper capital structure decision is key for any organization not only in terms of increasing its value and maximizing returns, but also due to the effect such a decision has on its ability to compete favorably.

Gill (2011), examined effect of economic crisis on capital structure and established that having a low leverage, Turkish firms immunized themselves against the economic crisis. Studies by Titman and Wessel (1988); Kester (1986); Rajan and Zingales (1995) found a negative relation between financial performance and leverage. Taub (1975) and Abor (2005) established a positive relation between financial performance and levels of debt in their studies. The inconclusive results from the above studies on capital structure and its effect on performance in financial perspective showed a gap that led to the need to conduct further research on the topic.

The available empirical literature reviews as per the discussion, make it clear that the results from investigations are not conclusive and more empirical work is required to establish the relation between capital structure and performance in financial perspective. This research project is therefore motivated by this gap in finance knowledge and seeks to answer the question: What are effects of capital structure decisions on performance in financial perspective of listed firms at Nairobi Securities Exchange under commercial and services sector?

1.3 Objective of the Study

To determine effect of capital structure on performance of commercial and services firms listed at NSE.

1.4 Value of the Study

The research findings will benefit potential investors in listed commercial and service firms, shareholders of the firms, academicians and financial researchers and the management of commercial and service firms. Current and potential investors in these companies will understand better the impact of leverage level on firm performance and make informed decisions before venturing into any investment.

Capital structure is a wide area of study where a lot of research has been done. Additional information based on concrete evidence will be a welcome additive to the existing scope of knowledge. From theoretical perspective, the study will add into many studies done in Kenya on firm's capital structure and its relationship on performance.

This study will help to government of Kenya in formulating capital structure policies that steer towards maximizing firm performance and value of the firm. The study will be helpful to consultants and financial analysts in their financial and advisory services to firms on the subject of capital structure and on firm's performance in financial perspective.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two covers a review of theories on capital structure, review of empirical studies on capital structure and performance in financial perspective, a detailed discussion on determinants of firms' performance, a conclusion of literature review and finally conceptual framework.

2.2 Theoretical Review

This section analyses theoretical models which are relevant for the study. Theories on capital Structure explain the effects of the cost of capital on firm's value when proportions of equity and debt vary. These theories are very useful in helping finance managers in deciding on the optimal ratio of debt and equity for their firm

2.2.1 Capital Structure Theory

Modigliani & Miller (1958) capital structure theorem provides the starting point for understanding business finance. The theory assumes that firms have a particular set of expected future cash flows. Choosing a certain capital structure mix to finance business operations or a firm's assets implies dividing cash flows among investors. In this theory, it is assumed that both firms and investors have equal access to financial markets and thus it is possible to have homemade leverage. The investor is assumed to be in a position to create any leverage that is necessary even if it is not offered. The investor can also get rid of any unwanted leverage that the firm may be having. Their paper led to both controversy and clarity.

The second proposition of MM theorem of capital structure irrelevance proposition states that the dividend payout a company adopts does not affect its market price neither does it affect the return to shareholders given a firm's investment policy (Miller and Modigliani, 1963). In other words, in perfectly competitive markets, the choice of either capital structure or dividend policy decisions does not matter. The 1958 paper stimulated scholars to serious research that aimed at disproving the irrelevance theorem either as a matter of theory or an empirical matter. The most commonly used elements include bankruptcy costs, agency conflicts, consideration of taxes, adverse selection, transaction costs, investors clientele effects, and time-varying financial market opportunities.

2.2.2 Static Trade-Off Theory

The theory was developed by Modigliani & Miller (1958) at first, they argued that a trade-off between tax deductibility of interest expense and costs of financial distress determine optimal debt ratios for firms. The findings of Graham et al., (2001) are that most companies do have a target level of debt, but only a few of them have a strict target level of debt.

The trade-off theory proposes that firms should continuously balance their target level of debt in line with stock price movements in order to maintain their target debt range. Transaction costs and the costs of issuance of debt affect the decisions of a few financial officers in their choice of debt capital for their firms. Despite the propositions of this theory, much of its propositions are not widely used in practice.

The theory maintains that for a firm to have capital structure that is optimal, benefits of debt financing must be weighed against the costs of debt financing. The optimal debt capital level is one that can maximize the firm's value and that should form the target level of debt.

2.2.3 Pecking Order Theory

This theory affirms that firms select sources of finance in order of priority (Myers & Majluf, 1984). This theory explains the implications that are brought about by information asymmetries that exist between outsiders and insiders of the firm (Bitok et al., 2011). According to the theory, due to asymmetry in terms of information between the managers of a given firm and the firm's investors, the investors are likely to undervalue the firm's new stock issued in the market.

The best way firms use to avoid this kind of problem is to utilize its own internal financial resources to finance its investments and operations of the firm. If the internal sources of finance aren't enough to finance the firm's investments, then the firm can turn to debt financing. In cases where debt financing is not useful to the firm anymore (that is when the cost associated with debt financing is more than the benefits of debt financing), the firm can issue equity in form of stocks (Raza, 2014). In simple terms, the theory of pecking order assumes that for any new investment, most firms will first prefer to finance it using internal resources, followed by the use of debt then equity as the last option of financing new investments (Al-Tally, 2014).

The theory of pecking order states that optimal capital structure does not exist since debt ratio occurs because of cumulative external financing requirements thus the primary determinant of firm's capital structure is a problem of asymmetric information between insiders and outsiders (Itiri, 2014). Pecking order theory does not recognize that there exists target leverage: where retained earnings comes first in terms of financing preference and equity, that is the stocks comes last in preference as far as financing of new investment is concerned (Bontempi & Golinelli, 2001). Basically, this theory suggest that firms will prefer utilize debt rather than equity to finance its investments (Nyamita, 2014).

The theory of Pecking order is based on assumption that decisions on the use of leverage are purely catalyzed by asymmetric information between managers of a firm and investors. The firms assume that investors may view the issue of equity in a negative way. As such, firms prefer to finance its investments using retained earnings as an internal source of finance first, debt as the second option then equity as last option when the first two options are unable to meet the fully required funds for investments (Calabrese, 2011). The theory of pecking order also suggests that most of firms with a high level of financial needs will probably end up with a very great debt ratio since managers do not prefer the issue of new equity in form of stocks (Al-Tally, 2014).

Myers & Majluf (1984) noted that, when supporting new investments firms favor internal funds as compared to external funds. If a case arises where the internal funds are not enough for a particular investment opportunity, a firm may seek other alternatives like the external fund. If it does, they will pick among the numerous outside funds in such a way as to ensure that they don't incur any additional costs regarding asymmetric information.

In addition, Myers (1984) indicated that safest securities will be given first priority when the necessity of external financing comes up, firms will most likely follow an order so as to achieve this by safest security which will be debt, then possibly convertible debt and then equity comes as a last resort. Myer's proposition was that business follows a hierarchy when it comes to determining the financing sources and internal financing is preferred choice and should external financing be needed; debt would be at the top as compared to equity. This argument was also supported by Pandey (2005).

This theory is important since it shows how firms define their capital structure by choosing to maintain their earnings in favor of debt so as to finance its operations. This theory will help determine whether profitable firm use less debt because of high earnings to fund themselves as compared to those with less earnings. In relation to effect of capital structure on performance in financial perspective, the theory will help to determine whether distinct preference is given to internal finance over external finance

2.2.4 Market Timing Theory (MTT)

MTT originated from the work of Kwast and Rose (1982). The theory postulates that managers prefer to issue debt securities to equity or vice versa according to the time varied costs of both equity and debt. As a result of these, issuance decisions in the past will affect the long run capital structure since long term capital structure is the outcome of prior issuance decisions. Thus, firms prefer to issue equity when relative cost is at least low and issue debt when equity cost is high (Kwast& Rose, 1982).

Since the return to the bondholders is fixed, stockholders are entitled to the remaining earnings after deducting the interest payments to the bondholders. The price of stocks is more responsive to information about firm's future performance. If the management of the firm is in possession of such information which may be favorable or unfavorable stock prices will increase or decrease significantly as compared to bond prices. Also if this information has not been reflected in the market prices, the price of stocks will appear to be undervalued or overvalued in comparison to bond prices (Molyneux & Thornton, 1992).

2.2.5 Agency Cost Theory

The theory of agency exists when the principle cannot manage his business on his/her own, delegates the authority to an agent (Jensen and Meckling, 1976). The problem with agency arises immediately when the desires and the goals a principal and the agent conflict. It is very tough and difficult or rather expensive for a principal to always monitor the work of his/her agent to ensure that the agent works and makes some decisions on the best interest of the principal. Thus, the theory of agency is helpful in solving the principal and the agent issues with an aim of ensuring a better relationship between them (Itiri, 2014).

This theory is based on the notion that the interests of shareholders and the managers are not aligned in a perfect way to enable them to work for a common goal i.e. achieving the organizational set goals and objectives. The agency theory plays a crucial role in financing decisions because of the problems that arise between the debt holders and the shareholders (Aliu, 2010).

The theory of Agency suggests that agents who in this case are the managers prefers to have a high level of cash flow even if there exists no profitable investment opportunity so that the funds can be used for managers own benefits other than for enhancing or increasing the firms value (Calabrese, 2011).

The Jensen and Meckling (1976) agency theory explains that decisions on capital structure must aim at reducing the cost related to agency by reducing equity in capital structure. This is done by increasing the debt financing hence increasing the market value of the firm as well as reducing the conflicts that may exist between managers of a firm and shareholders.

The main theoretic clarification for the connection between the possession structure as well as effectiveness is constructed on the agency concept, first formalized by (Jensen &Meckling, 1976). Agency conflicts can arise between shareholders as well as bondholders and/or between directors as well as Stockholders and can cause asset replacement and underinvestment. Smith and Warner (1979) argue that long-term non-cancellable leases (financial or Capital leases) can help mitigate the asset substitution problem because the non-cancellable lease commits the lessee to use the leased asset over the life of the lease contract (Myers, 1977).

Stulzand Johnson (1985) argue that the non-cancellable long-term leases should help mitigate the underinvestment problem due to debt overhang. However, in case of short term operational leases, agency costs may also arise between lessor and lessee due to the separation of ownership from usage of asset. Since the lessees have no right to the residual value of the asset, they have no incentive to take proper care of it. This probably

explains the reason why corporations lease office facilities much more frequently than manufacturing or Research & Development (R&D) facilities.

Agency theory suggests that debt is used as a tool to control the manager since with debt financing; managers will be forced to focus on using the free cash flows to service the debt other than trying to invest the funds in some unprofitable projects (Calabrese, 2011). This theory is based on the notion that manager's behavior can be controlled by debt financing since the managers will use the free cash flow to interest payment of the debt obtain to finance the firm's investment projects. Thus, the theory of agency supports the use of debt to improve the firm's financial performance (Mwangi, Muturi & Ngumi, 2016).

2.3 Determinants of Firm Performance

There are several factors that are considered as influencers of how a firm performs. They include; liquidity, size of the firm, and solvency margin.

2.3.1 Size of the Company

Large Firm's size determines the level of economics of scale enjoyed by the firm. When a firm becomes larger it enjoys economics of scale and the average production cost is lower and operational activities are more efficient. Hence, larger firms generate larger returns on assets. However, larger firms can be less efficient if the top management lose their control over strategic and operational activities within the firm (Chandrapala & Knápková, 2013). Large firms are also more diversified than small ones and have greater market power and during good times may have relatively more organizational slack.

The size of the firm or enterprise also determines the cash flow sensibility to investments (Predescu, 2008). In measuring the size of the firm, total number of employees of the firm, volume of sales and amount of property are the main factors that are usually measured (Salman & Yazdanfar, 2012).

2.3.2 Liquidity

Liquidity refers to available funds that can be easily used for investment and or expenditure purposes. It is also an indicator of the ability of the firm to meet its obligations when they fall due (Alkhatib, 2012). Liquidity is a firm's ability to fulfill both expected and unexpected demands of cash on an ongoing basis. In order for a firm to sustain its activities and remain in existence for a long time, it must be liquid and be able to meet its obligations at any time (Kumar and Agarwal, 2012).

Working capital management is crucial to any successful business. With poor management of working capital, the firm's funds are likely to be tied up in idle assets (Bashar & Islam, 2014).

Liquidity is measured using cash and cash equivalents divided by total average assets. Liquidity ratios compare the current assets of a business to the current liabilities. As such, the objective of focusing on a firm's liquidity in order to determine how effectively an entity can pay its bills (Akhtar, 2007). Liquidity is positively correlated with financial performance (Mwangi, 2014).

2.3.3 Solvency Margin

Solvency margin of a firm similarly is a determinant of financial performance as enables a firm to reduce its exposure to the risks of conducting business. The capital is measured by offsetting obligations from the assets of a company (Adams and Buckle, 2003).

A higher solvency margin shows the financial soundness of a company since it will be able to cater for unexpected losses without compromising overall performance. Companies performance may improve as Shiu (2004) observed that better risks are attracted to more stable investors through a higher solvency margin. The lower the solvency risks of a firm, the better the financial performance expectations.

2.4 Empirical Studies

There are numerous empirical studies to support the relation between capital structure and firm performance, but results and findings differ. According to the discussion by Friend, Irwin and Lang (1988) on capital structure decisions and their impact on shareholding, there exists a negative correlation between debt levels and management shareholding. The indication is that low debt levels as compared to equity shareholding will leads to a higher non-diversifiable risk of borrowings to management.

Titman & Wessels (1988) analyzed some of the recent theories of optimal capital structure explanatory powers and extended on capital structure theory empirical work. In their examination of capital structure theories, implications on different kinds of debt instruments such as long term and short term facilities was analyzed. The results indicated that transaction costs are vital capital structure determinants.

Ibrahim (2009) examined the relation between leverage and firms' performance in financial perspective in Egypt using multiple regression analysis. The study concluded that capital structure had no effect on firms' performance in financial perspective.

Ebaid (2009) carried out a study on effect of capital structure choice on firms in Egypt. It was revealed that financial performance is negatively influenced by short term debt and total debt but there wasn't any significant relationship with long term debt.

Muhoro (2013) examined effect of capital structure decisions on performance in financial perspective of construction and allied firms listed at NSE from 2003 – 2012. The population used in this study was five listed construction and allied companies. The relationship was established using multiple linear regression model. The study established a positive relation between total debt, long term debt, short term debt, size, sales growth and return on equity.

Tale (2014) did a study to establish capital structure and performance relationship. The study period was between 2008 to 2013 on 40 non financial firms listed at the NSE. Analysis was done using regression analysis model and the study findings revealed a positive insignificant relationship between financial performance and tangible assets was established.

Tifow and Sayilir (2015) examined capital structure and performance of the firm so as to establish if there exists any relationship. This study was conducted for the period between 2008 to 2013 on 130 manufacturing firms listed on Borsa Istanbul and panel data analysis was used. The methodology used was multiple regression analysis. The study concluded that leverage has a negative significant association with performance of the firm.

Locally, several studies have been done in this area. Banafa (2015) conducted a study on manufacturing sector in Kenya focusing on how capital structure affects profitability. Convenience sampling was adopted in the study and the conclusion was that capital structure has a positive significant effect on firms' performance.

Amenya (2015) did a study on capital structure and firms performance in financial perspective in Kenya so as to determine their relationship for a six years period between 2008-2013. The study population was 61 firms listed at the NSE but the study narrowed to a sample of 26 firms using the random selection sampling technique. The conclusion from the study was that when financial leverage is increased, there exist a negative effect on performance of the firm.

Gachoka (2005) reviewed the capital structure choice in Pecking order theory empirical testing among firms listed at the NSE. The study tested whether listed companies at NSE follow the pecking order theory as developed by Myers in their financing choices. The study concluded that listed firms at NSE do not follow the pecking order theory when making financing decision. This conclusion leaves a gap that need to be filled by testing other theories explaining financing choices to determine the one applicable to NSE firms.

Wandeto (2005) carried out an empirical investigation of relation between changes in dividend and earnings, cash flows and capital structure for the firms listed at NSE. The study was carried out with the aim of examining the presence and strength of the relationship between dividends changes with variables such as earnings, cash flows, and capital structure (leverage) among listed firms at NSE. The conclusion was that changes in dividend is more sensitive to earnings, then cash flows from operating activities and

finally to debt in that order. Those firms with high debt to equity ratios pay low amounts of dividends.

Orua (2009) studied the relation between capital structure and performance in financial perspective of Kenyan microfinance institutions for a period of five years from 2004 to 2008. She studied 36 institutions which had been trading for six years. The study concluded that such relationship could not be clearly observed and they were inferred from capital structures of MFIs which were perceived to be performing well. She also concluded that capital structure influences the entities' performance in financial perspective. Highly leveraged MFIs performed better by reaching out more clients.

Yabs (2015) did a stud on capital structure and performance in financial perspective for Kenyan real estate firms so as to determine their relationship. The focus of the study was on a sample size of 28 real estate firms for a period of five years. Regression analysis was used and the findings from the study was a positive effect between capital structure and firm's performance in financial perspective.

Kamau (2009) also studied effects of capital structure on performance in financial perspective of firms quoted at NSE for a 5 years' period from the year 2003 to 2007 where he found out that Kenyan firms listed in NSE are largely dependent on short-term debts to finance operations due to difficulties in accessing long-term credit. He advocated for further study to be carried out in this area.

Lokong (2011) carried out a study on relation between capital structure and profitability of Kenyan microfinance institutions (MFIS). He studied a sample of 43 microfinance institutions in Kenya for a period from 2006 to 2009 and found out existence of a positive

relation between profitability of MFIs and capital structure. He, therefore, concluded that most MFIS in Kenya were using more equity than debts.

Muia (2011) studied the relation between capital structure and SMEs Performance in financial perspective where he took a sample of 100 SMEs. The study established that the relation between long-term debt and profitability was negative for all the period of the study. Therefore, most profitable SMEs depend on the short term debts as their main financing options.

2.5 Conceptual Framework

Independent variables

Dependent variable

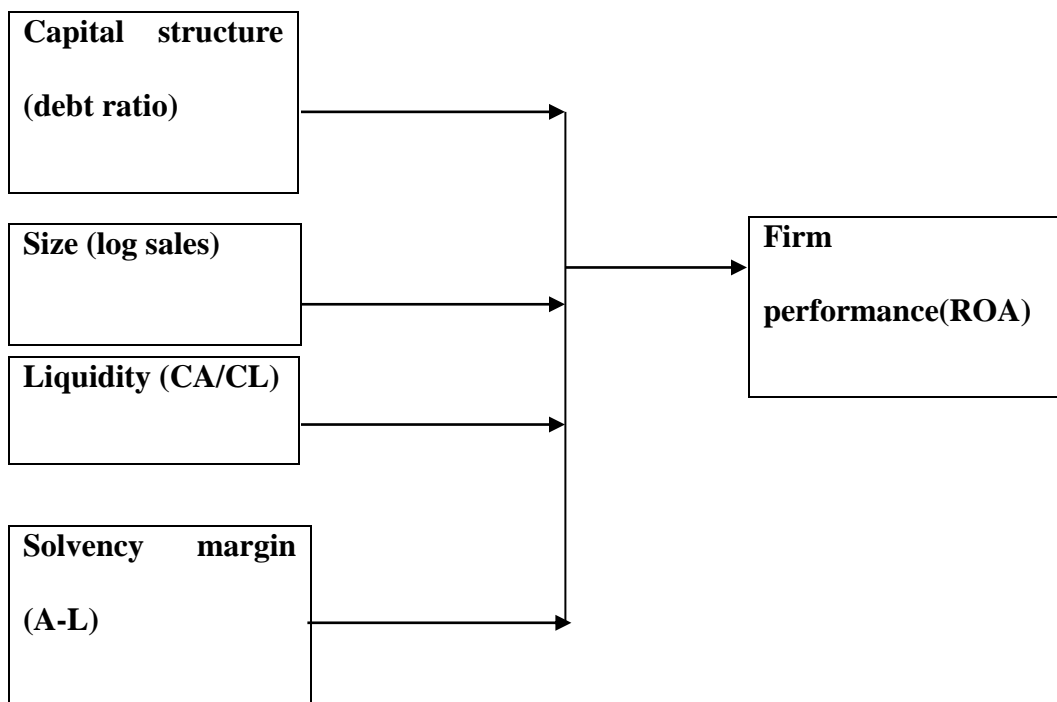


Figure 1: The relationship between capital structure and firm performance

Capital structure was independent variable and it was measured by debt ratio given as long-term debt/ (shareholders equity + long term debt), Liquidity given as current assets/

current liabilities, and firm size given by natural logarithm of sales. Firm performance will be the dependent variable that the study will seek to explain and it was being measured by ROA.

Chiang Yat Hung et al., (2002) found that gearing ratio is inversely related to profit margins. Orua (2009) studied the relation between capital structure and performance in financial perspective of Kenyan microfinance institutions and concluded that such a relationship could not be observed. The current study is informed by these previous studies and it will seek to confirm whether capital structure affects firms' performance in financial perspective.

2.6 Summary of the Literature Review

This section reviews theoretical and empirical literature about the research questions presented in this study. A positive relation between capital structure and performance in financial perspective exists as established by Lokong (2011), a negative relation as found by Muia (2011) while no relations is found by Kamau (2014) and Orua (2009). Clearly, these results are mixed and therefore not conclusive. Due to lack of common agreement on what constitutes an optimal capital structure, it is significant to examine effects of capital structure on firms' performance in financial perspective. Motivated by this gap, this study therefore, sought to examine effect of capital structure on firms' performance in financial perspective. The study attempts to answer this question; does capital structure have an effect on performance of commercial and service firms listed at NSE?

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Chapter three focuses on the study research design, study population, a test of reliability and validity, data collection techniques and techniques of analysis.

3.2 Research Design

Research design is a blueprint utilized by the study to ensure that the research problem is addressed. Descriptive cross-sectional design was used for the study. A descriptive study involves a description of all the elements of the population. It allows estimates of a part of population that has these features or characteristics. Identifications of associations among various variables is done to establish whether the variables are independent and if dependent, find out the strength of the relationship. Cross-sectional study methods are done once and they mainly represent a summary at a given timeframe (Cooper and Schindler, 2008).

3.3 Population of the Study

Population refers to a set of people or items with similar characteristics that a researcher intends to study and to draw statistical inferences or conclusions (Gall et al., 2006). A specific population contains unique characteristic that separates and differentiates them from populations of other studies.

Our target population for this study was the ten commercial and services sector firms listed on the NSE (Appendix 1). There was no sampling since the population was not huge and thus could be covered wholly.

3.4 Data Collection

The secondary data was extracted solely from Annual published financial reports of listed firms at NSE in commercial and services segment for the period of year 2011 to year 2015 and was captured in a data collection sheet. The reports were obtained from the Nairobi Securities Exchange, firm's publications and websites. The end result was information detailing capital structure and financial performance. The specific data collected was firms' revenue, current liabilities, long term liabilities, current assets and capital. Return on assets was computed from net income and average total assets. Long-Term Debt to Total Equity was computed from total equity, total short term liabilities, total long-term liabilities, and total liabilities at the end of each year.

3.5 Diagnostic Tests

Mugenda and Mugenda (2003) argues that any serious and qualitative researcher must be concern himself with both reliability and validity when conducting a given study, analyzing study results and indeed evaluating quality of his work. (Mugenda & Mugenda, 2003) validity test is used in determination of a measurement if it really reflects the concept under the study. This research study used audited financial reports for the firms thus enhancing validity of the study. Reliability refers to the stability, accuracy and precision of measurement. The quality of a research depends on the way the research is conducted and the process used consistently and in a reliable way. Mugenda and Mugenda (2003) describe reliability as the ability of a research tool to exhibit consistent and accurate results after conducting a number of trials.

3.6 Data Analysis

Statistical package for social sciences (SPSS) software version 21 was used to analyze collected data. Quantitatively, a researcher presented the information by use of tables and line graphs. Various financial ratios were used to analyze the data since financial ratios summarize large quantities of data and can be used to perform a comparison of performance over time. Financial performance ratios were used. Correlation Coefficient (r) was determined and utilized to measure direction and strength of the relation between financial performance (dependent variable) and each of the Independent variables. Coefficient of determination (R square) was used to measure proportion of variance in financial performance that is explained by each of the independent variables in the study. T-test was used in testing significance of relation between performance in financial perspective and each of independent variables. The below regression model was used:

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

Where: Y = Financial performance measured by ROA

α = y intercept of the regression equation.

$\beta_1, \beta_2, \beta_3, \beta_4$, = are the slope of the regression

X_1 = Debt ratio given as long term debt / (shareholders equity + long term debt)

X_2 = Liquidity, as given by Current Assets divided by Current Liabilities

X_3 = Size, as given by; Natural logarithm of sales

X_4 = Solvency margin, as given by, excess of assets over obligations

ε = error term

3.6.1 Tests of Significance

Correlation Coefficient (r) was obtained and utilized in measuring strength and direction of the relation between dependent variable (Financial performance) and each of Independent variables. Coefficient of determination (R square) was utilized in measuring proportion of variance in explained variable which is explained by explanatory variables. If F calculated was less than table value, then the decision will be there will be no statistical evidence of significance correlation at 5% level of significance. T test was utilized to test for significance of association between financial performance and each of explanatory variables.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

Chapter 4 presents results of analyzed data using tables. The chapter contains descriptive statistics and correlation analysis. The chapter also presents results of the regression model and an interpretation of the research findings.

4.2 Descriptive Statistics

This section outline descriptive results of this study, measures of central tendency, the trends analysis including log of sales, leverage ratios, current ratio and average solvency ratio for commercial services companies listed at NSE. Table 1 shows that debt ratio has a mean average of 0.212 and standard deviation of 0.1169, size as measured by log of sales has 6.69 and standard deviation of 0.0503, liquidity has a weighted mean of 1.298 and standard deviation of 0.061. Solvency ratio has a weighted mean average of 0.260 and standard deviation of 0.1749 while return on asset has a weighted mean average of 0.1120 and standard deviation of 0.0192. Size and liquidity shows more dispersion from the mean while return on assets has the lowest dispersion from the weighted mean.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Debt ratio	50	.10	.41	.2120	.11692
Size	50	6.62	6.75	6.6940	.05030
Liquidity	50	1.21	1.38	1.2980	.06058
Solvency ratio	50	.12	.56	.2600	.17493
Return on asset	50	.08	.13	.1120	.01924
Valid N (list wise)	50				

4.3 Correlation Analysis

Correlation analysis is used to establish if there exists a relation between two variables which lies between (-) strong negative correlation and (+) perfect positive correlation. Four variables were generated using SPSS (Leverage, log of sales, current ratio, and solvency variable).

Table 2 Correlation Analysis

	Return on Assets	Debt ratio	Size	Liquidity	Solvency Margin
Return on Assets	1	-0.274	-0.128	0.244	0.237
Debt ratio	-0.274	1	-0.862	0.192	-0.272
Size	-0.128	-0.862	1	0.078	0.219
Liquidity	0.244	0.192	0.078	1	0.759
Solvency margin	0.237	-0.272	0.219	0.759	1

Table 2 shows results of correlation analysis. Correlation findings indicate a negative correlation between debt ratio and ROA, size of a firm and ROA, while liquidity and solvency margin exhibit a positive correlation with ROA. The results of correlation analysis also established a negative correlation between log of sales and debt ratio ($p = -0.862$, $p > 0.05$). This implies that total debt ratio has significant influence on the company's sales. The relationship between current ratio and leverage was found to be weak ($p = 0.190$, $p > 0.05$). This implies that increase in leverage has minimal implications on the company's current ratio. The study also indicated a negative correlation between debt ratio and solvency ratio ($p = -0.272$, $p > 0.05$). This shows that debt ratio significantly

influences company's solvency ratio. The findings also revealed a strong positive relationship between current ratio and solvency ratio ($p= 0.759$, $p>0.05$).

4.4 Regression Analysis and Hypotheses Testing

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.800	.641	.577	.103

Source: Research Findings

Table 8 indicates that there is an R^2 value of 64.1%. This value indicates that four independent variables explain 64.1% of variance in company's performance in financial perspective as measured by ROA. It therefore means that 35.9% of changes in ROA are explained by many other factors not considered in this study model.

Table 4: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.090	4	.015	2.943	.0003
	Residual	.207	45	.016		
	Total	.297	49			

Source: Research Findings

Given 5% level of significance, the numerator $df = 4$ and denominator $df = 45$, critical value 2.226, table 9 shows computed F value as 2.943. The P value from the model summary is 0.0003 which is less than 0.05. This confirms that overall multiple regression model is statistically significant, in that it is a suitable prediction model for explaining how the selected independent variables affects the company's financial performance.

Table 5: Regression Model

Model		Un-standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.038	.572		1.239	0.227
	Debt ratio	-.422	.010	-.186	-.969	0.041
	Size	-.012	.337	-.024	-.638	0.216
	Current ratio	.157	.138	.354	.707	0.013
	Solvency	.172	.048	.260	1.521	0.013

Using a significance level of 5%, any independent variable having a significant value greater than 5% is considered not statistically significant. This study found that debt ratio; liquidity and solvency margin are statistically significant with size as measured by log of sales which has a significance of more than 5% not statistically significant. The resulting regression model is as follows:

$$Y = .038 - .422X_1 + .157X_2 - .012X_3 + .172X_4 + \varepsilon$$

The regression model shows that debt ratio and size has a negative effect on ROA while liquidity and solvency margin has a positive effect on ROA.

4.5 Discussion of Research Findings

The study sought to determine the relation between capital structure and performance of commercial and services firms listed at NSE. Debt ratio, liquidity, size and solvency margin were independent variables representing capital structure while ROA was the dependent variable representing firm performance. The ROA measures how effective firm is utilizing its assets in making earnings.

From correlation analysis, it established a positive correlation between return on asset and liquidity and ROA and solvency margin while the correlation between return on asset and debt ratio and ROA and size was found to be negative. The Pearson correlation coefficients between the variables further revealed a negative correlation between log of sales and debt ratio. The relation between current ratio and leverage was found to be weak. The study also showed a negative correlation between debt ratio and solvency ratio. The study findings also revealed a strong positive relation between current ratio and solvency ratio.

Using a significance level of 5%, any independent variable having a significant value greater than 5% is considered not statistically significant. This study found that debt ratio; liquidity and solvency margin are statistically significant with size as measured by log of sales which has a significance of more than 5% not statistically significant. The model summary revealed that the independent variables: debt ratio, liquidity, size and solvency margin have a correlation of 64.1% with dependent variable which implies that only 35.9% of changes in firm's performance listed at NSE is not explained by this variable. The model is fit at 95% level of confidence since F-value is 2.943. This confirms that overall the multiple regression model is statistically significant, in that it is a suitable prediction model for explaining how the selected independent variables affects the commercial and services firms return on assets.

The findings of this study reveal that debt ratio (proxy for capital structure), influence performance of commercial and service firms listed at the NSE. The total loans in these firms could lead to high interest expense hence lowering the size of the firm as well as reduced shareholder's wealth. The shareholders can decide to withdraw their investment

in terms of shares in the company if the managers make decision to continue increasing the total debt and these can lead to financial crisis of the firms listed. The findings concur with Wandeto (2005) who found that firms in rapidly growing industries have more investment opportunities than firms in low-growth industries. Highly levered companies are more likely to forego profitable ventures, because such a venture will imply transferring resources from shareholders to debt holders. Thus, firms in rapidly growing industries may not issue debt, as increase in leverage is hypothesized to be negatively related to future growth prospects.

The findings of this study are also similar to Adekunle (2009) who examined effect of capital structure on performance of Kenyan pharmaceutical firms. It was established that leverage as proxied by debt asset ratio has a negative significant effect on performance of Kenyan pharmaceutical firms.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary, conclusion and limitations of this study. The chapter also elucidates the policy recommendations that policy makers can implement to achieve a high firm value. Lastly the chapter presents suggestions for further research which can be useful to future researchers.

5.2 Summary of Findings

This study aimed at determining the effects of capital structure on commercial and service firms' performance for the period between 2011 and 2015. From the analysis of descriptive studies, it was found that debt ratio had a mean average of 0.212 and standard deviation of 0.1169, size as measured by log of sales had 6.69 and standard deviation of 0.053, liquidity had a weighted mean of 1.298 and standard deviation of 0.061. Solvency ratio had a weighted mean average of 0.260 and standard deviation of 0.1749 while return on asset had a weighted mean average of 0.1120 and standard deviation of 0.0192. Size and liquidity showed more dispersion from the mean while return on assets had the lowest dispersion from the weighted mean.

From correlation analysis, a negative correlation between ROA (proxy for firm performance) and debt ratio (proxy for capital structure) was established. This implies that total debt ratio has a negative influence on firms' performance in financial perspective. The relationship between current ratio (proxy for liquidity) and firm performance was found to be positive. This implies that increase in current ratio has

positive implications on the company's financial performance. The study also indicated a positive correlation between solvency margin and firms' performance in financial perspective. This shows that the more the excess of assets over obligations the more the firm performance. The findings also revealed a negative relation between firm size as given by natural logarithm of sales and a firm's financial performance.

Results of regression analysis shows R squared value of 64.1%. This value indicates that four independent variables explain 64.1% of variance in the company's performance in financial perspective as measured by ROA. It's very clear that independent variables contribute to a large extent to company's level of performance. It is therefore sufficient to conclude that these variables significantly influence financial performance of companies given the unexplained variance is only 35.9%. This study further found that debt ratio; liquidity and solvency margin are statistically significant in determining firm performance with size as measured by log of sales which has a significance value of more than 5% not statistically significant.

5.3 Conclusion

This study concludes that capital structure has a significant effect on firms' performance in financial perspective as measured by ROA. According to the findings of this study, debt has a negative effect on performance in financial perspective of commercial and services firms listed at NSE. That is, a firm with more debt relative to equity is likely to have a lower performance compared to a firm with less debt. The study as well concludes that firms that are liquid enough (have more current asset than current obligations) will experience high performance. Findings by Shiu (2004) supports the conclusions of this study when they affirmed a positive relation between capital structure and performance in

financial perspective. Hadlock and James (2002) also support the argument.

This study concludes that the selected independent variables (capital structure, liquidity, and size and solvency margin) contribute to a large extent to the company's level of performance. The R squared value obtained from regression analysis implies that 64.1% of changes in firm performance are explained by the selected independent variables. It is therefore sufficient to conclude that these variables significantly influence performance of companies considered for this study at 5% level of significance since only 35.9% of changes in return on assets are not accounted for by these independent variables.

5.4 Recommendations

It is critical for the managing directors of the commercial and services firms to understand effect of capital structure on their organization's performance. There is need for all listed firms at NSE to have a capital structure that can cushion them from financial distress as a result of debt. Such a capital structure should provide a safety net to shareholders in times of recessions and depressions. In addition, the capital market analysts should advise commercial and services firms on the optimal capital structure based on an informed firm analysis.

This study recommends a need for firms to increase their solvency margin by growing their assets as it was revealed that solvency margin positively impacts on performance of the firms. The study also recommends that there is need for the firms to design strategies aimed at increasing their asset base and utilize their earnings from operations to acquire more long-term assets and manage their obligations to improve firm performance.

The study found that liquidity has a significant effect on firms' performance in financial perspective, however liquid assets in themselves generate little if any interest at all and so a balance need to be arrived at. The study recommends that firms should maintain sufficient liquidity levels to meet obligations when they fall due. However, these liquid assets should be in a form that generates income such as marketable securities. A profitable firm with high quality assets and sufficient capital may fail if it is not maintaining adequate liquidity. The study recommends that firms should be equipped to aid repayment of short term borrowings.

5.5 Limitations of the Study

This study applied secondary data in meeting its mandate. A review of the same case using primary data sources involving the experts in the stock market might bring out different outcomes. The researcher decided to use secondary data because it is information from combined effort by experts to the public.

For data analysis purposes, the researcher applied multiple linear regression model. Due to the shortcomings involved when using regression models such as erroneous and misleading results when the variable values change, the researcher cannot be able to generalize the findings with certainty. If more and more data is added to the functional regression model, the hypothesized relation between two or more variables may not hold.

5.6 Suggestions for Further Research

This study concentrated on the last five years since it was the most recent data available. Future studies may use a range of many years e.g. from 1970 to date and this can be helpful to confirm or disapprove the findings of this study. Similar studies to this can also

be carried out in future using both primary and secondary data to capture some pertinent information that this study was not able to capture due to the shortcomings associated with secondary data. Finally, due to the shortcomings of regression models, other models such as the Vector Error Correction Model (VECM) can be used to explain various relationships between the variables.

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APPENDICES

Appendix 1: Listed commercial and service firms at NSE

Atlas Development and Support Services

Express Ltd

Hutchings Biemer Ltd

Kenya Airways Ltd

Longhorn Kenya Ltd

Nation Media Group

Scan group Ltd

Standard Group Ltd

TPS Eastern, Africa (Serena) Ltd

Uchumi Supermarket Ltd

Appendix 2: Data collection template

Company/Year	Variable	2011	2012	2013	2014	2015
	Revenue					
	LTD					
	STD					
	CA					
	Capital					
	Revenue					
	LTD					
	STD					
	CA					
	Capital					
	Revenue					
	LTD					
	STD					
	CA					
	Capital					
	Revenue					
	LTD					
	STD					
	CA					
	Capital					

Appendix 3: Research Data (2016)

Company	ROA	Debt Ratio	Liquidity	Size	Solvency Ratio
Atlas Development and Support Services	(0.03)	0.27	0.46	6.65	(0.04)
	(0.09)	0.32	0.56	6.90	(0.12)
	0.03	0.28	0.92	6.83	0.04
	0.06	0.15	1.06	6.80	0.09
	0.04	0.19	0.87	6.70	0.05
Express Ltd					
	(0.16)	0.28	0.59	7.20	(0.64)
	(0.00)	0.29	0.64	7.21	(0.03)
	(0.03)	0.61	0.40	7.15	(0.35)
	(0.29)	0.46	0.32	6.00	2.06
	(0.01)	0.52	0.32	6.18	(0.90)
Hutchings Biemer Ltd					
	0.19	0.53	1.75	5.97	0.46
	0.23	0.49	1.62	6.06	0.47
	(0.05)	0.50	1.12	6.00	(0.07)
	0.28	0.62	1.77	6.66	0.71
	0.05	0.57	1.90	6.59	0.14
Kenya Airways Ltd					
	0.31	0.84	2.37	6.55	1.14
	0.30	0.14	2.43	6.58	1.12
	0.31	0.13	2.25	8.53	1.04
	0.22	0.45	2.31	8.40	0.74
	0.28	0.52	1.99	8.28	0.84
Longhorn Kenya Ltd					

Company	ROA	Debt Ratio	Liquidity	Size	Solvency Ratio
	0.05	0.74	2.46	8.21	0.19
	0.06	0.72	2.46	7.24	0.21
	0.09	0.74	2.25	7.38	0.30
	0.11	0.70	2.05	7.45	0.31
	0.08	0.29	1.68	7.51	0.19
Nation Media Group					
	0.08	0.27	1.22	8.44	0.17
	0.07	0.28	1.16	8.34	0.14
	0.08	0.28	1.12	8.25	0.16
	0.07	0.84	1.08	8.13	0.12
	0.14	0.83	1.32	8.08	0.26
Scan group Ltd					
	0.13	0.84	0.80	5.17	0.04
	0.39	0.83	0.87	5.09	0.14
	0.42	0.66	0.89	4.89	0.13
	0.27	0.65	1.50	4.90	0.17
	0.23	0.64	1.41	8.20	0.16
Standard Group Ltd					
	0.07	0.65	0.67	8.11	0.13
	0.09	0.17	0.70	8.09	0.18
	0.08	0.15	0.72	8.06	0.18
	0.13	0.13	0.91	6.57	0.30
	0.14	0.18	0.92	6.59	0.27
TPS Eastern, Africa (Serena) Ltd					
	0.04	0.70	0.87	6.53	0.14

Company	ROA	Debt Ratio	Liquidity	Size	Solvency Ratio
	0.04	0.65	0.89	6.49	0.17
	0.06	0.54	1.50	7.21	0.23
	0.08	0.48	0.97	7.17	0.18
	0.06	0.52	1.25	6.96	0.19
Uchumi Supermarket Ltd					
	0.03	0.61	0.62	6.98	0.08
	0.03	0.65	0.61	6.59	0.06
	0.03	0.63	0.78	6.61	(0.02)
	0.03	0.64	0.76	6.62	0.01
	0.04	0.87	0.58	6.54	(0.04)