EFFECT OF CAPITAL STRUCTURE ON FINANCIAL PERFORMANCE OF COMMERCIAL AND SERVICES FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

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NOVEMBER, 2018
DECLARATION

I declare that this research is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

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This research project has been forwarded for examination with my approval as the University Supervisor.

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Gratitude goes to all my friends who contributed directly and indirectly to the completion of this academic document.
DEDICATION

This project paper is dedicated to family, who have always encouraged and supported me throughout my life. They have been, and still are, the pillar of strength in my life. I thank you.

To my friends, finishing this project would have been impossible if it were not for your constant impetus in concluding this project. Also for your wonderful support and great input, you are much appreciated.
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<tr>
<td>ATS</td>
<td>Automated Trading System</td>
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<tr>
<td>CDS</td>
<td>Central Depository System</td>
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<tr>
<td>CMA</td>
<td>Capital Market Authority</td>
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<td>EPS</td>
<td>Earnings Per Share</td>
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<td>NSE</td>
<td>Nairobi Securities Exchange</td>
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<tr>
<td>ROA</td>
<td>Return on Assets</td>
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<td>ROE</td>
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<td>SPSS</td>
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ABSTRACT

Capital structure plays a critical role in firms financial performance provided it is utilized efficiently and in an effective manner at its optimal level. However, the question of what constitute an optimal capital structure is still unanswered and with the finance circles remaining controversial. There is no agreement on the nature of effects of capital structure on the profitability from both the existing theoretical and empirical studies. The aim of this study was to ascertain the effect of capital structure on financial performance of commercial and service firms quoted at the NSE. The population for the study was all the 12 commercial and service companies quoted at the NSE. The independent variables for the study were capital structure as measured by debt ratio, liquidity measured by current ratio and firm size as measured by the natural logarithm of total assets. Financial performance was the dependent variable and was measured by return on assets. Secondary data was collected over a five year time frame (January 2013 to December 2017) annually. The descriptive cross-sectional research design was employed for the study and the relationship between variables established using multiple linear regression analysis. Data analysis was undertaken using the SPSS software. The results of the study produced R-square value of 0.285 which means that about 28.5 percent of the variation in financial performance of commercial and service firms quoted at the NSE can be explained by the four selected independent variables while 71.5 percent in the variation of financial performance of commercial and service firms listed at the NSE was associated with other factors not covered in this research. The study also found that the independent variables had a strong correlation with financial performance of commercial and service firms listed at the NSE (R=0.534). ANOVA results show that the F statistic was significant at 5% level with a p=0.001. Therefore the model was fit to explain the association between the selected variables. The findings also showed that firm liquidity produced positive and statistically significant values for this study. Capital structure and firm size produced positive but statistically insignificant values for this study. The study recommends that commercial and service firms quoted at the NSE should maintain adequate levels of liquidity as the findings of this study depict a positive significant effect of firm liquidity on financial performance.
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

One of the most vital issues in corporate finance which has been debated among many academicians, financial institutions and the companies is the choice of debt and equity levels (Myers, 2001). Either way, there must be adequate funding of the business activities. Enough funds must be availed for the business to meet its working capital requirement and acquire the required fixed assets. The firm’s capital structure decision is critical is every aspect of fixed asset investment as it affects the company’s profitability. Proper attention and consideration is required while making capital structure decisions so as to boost the firms’ performance and maximize shareholders wealth (Nyamita, 2014). The success or failure of a corporation is greatly determined by debt financing. As such, financial managers of a corporation got to be careful while making financial decisions (Aliu, 2010).

Capital structure theories try to explain whether combination of debt and equity matters, and if it does, what might be the optimal capital structure. These theories include; the Modigliani and Miller (1958) theory which proposed that the cost of obtaining capital is not linked to the type of funds that a company uses and there isn’t any existence of an ideal capital structure, hence the firm’s capital structure of a firm is not relevant or has no influence on the firm’s value. The trade-off theory argues that for a company to achieve an optimum capital structure, there must be a tradeoff between benefits-costs of borrowing and equity financing. The main gain linked with borrowing is the tax deduction of tax from interest and the cost to be incurred are bankruptcy and agency costs (Jensen &Meckling, 1967). The pecking order theory argues that there exists an
information asymmetry problem between the agents of a firm who are managers and shareholders who are the owners, in order to reduce this problem firm will prefer to use funds generated internally as compared to external funds (Myers & Majluf, 1984).

Commercial and services firms that manage capital structure efficiently aims to ensure an optimum balance between profitability and risk. Recent activities by these firms indicate their awareness on how firm performance is enhanced by capital structure. The additional issuance of new shares by Atlas Development and Support Services Limited which shall be cross-listed in both the London Stock Exchange and Nairobi Securities Exchange and the 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.

1.1.1 Capital Structure

The capital structure provides the blend of a company’s sources of finance which include debt and equity. It gives a structure of how a firm finances its assets either by debt (long term or short term), equity (common or preferred) or a hybrid of the two (Saad, 2010). Capital structure is important in explaining how an organization finances its growth and operations by use of various sources of funds (San & Heng, 2011). The firm’s ownership structure is a mixture of its liabilities and it gives a combination of current liabilities, for example, creditors and bank overdrafts and noncurrent liabilities, for example, ordinary and preference shares, debentures, convertible loans, banks loans, et cetera (Saad, 2010).
Debt finance has both the advantages and disadvantages in the growth of companies and expansion of the economy. Debt finance results to benefits such as tax shield and the diminution of problems of free cash flow by enhancing managerial behavior while the expenses of debt financing include agency expenses and bankruptcy cost which arises from contradicting opinions between the debt holders and the shareholders (Fama & French, 2002). Managers therefore, should try to balance these costs and benefits of debt when making debt capital decisions in order to improve performance (Kraus & Litzenberger, 1973).

Capital structure is measured using debt ratios. The debt ratios make comparison of the total debt with the total assets owned by the company. A low ratio indicates that a company depends less on debt while a high percentage indicates that a firm rely more on debt finance. Another measure of capital structure is the debt ratio to aggregate capital. Nevertheless, the widely preferred method of measuring capital structure as used by various researchers to compute capital structure in studies using capital structure to predict different variables is the proportion of debt to equity (Abhor, 2005).

1.1.2 Financial Performance

The range by which a firm’s financial objectives will or have been met is called financial performance (Yahaya & Lamidi, 2015). A firm’s financial performance is subject to its effectiveness in using its assets for its key function of carrying out business and generating revenue. It’s also the general state of a firm in terms of finance. Financial performance can as well be used to gauge or measure financial health of firms from the same industry or across different industries for comparison purposes. In summary, it’s a crucial objective that firms especially the profit oriented firms desire or aim at to achieve (Kajirwa, 2015).
Financial performance concentrates more on items that influence the firm’s financial statements or reports directly. The financial performance analysis can deal with items like sales turnover, dividend growth, asset base and capital employed etc. (Omondi & Muturi, 2013). It’s a crucial measure of some economic units’ success for instance on achieving of set goals and objectives (Xu & Wanapee, 2014). Firm’s stakeholders are mostly concerned with the firm’s performance in terms of finance (Nyamita, 2014).

There are several financial ratios that can be applied in expressing financial performance; these include activity ratios, liquidity ratios, debt ratios and profitability ratios (Bouba, 2011). It can be determined from various perspectives including: liquidity, profitability, and solvency (Mwangi & Angima, 2016). Performance measurement for a company can be done through accounting-based measures calculated from firm’s financial statements like ROA, ROE and Gross profit margin (Mwangi & Murigu, 2015).

1.1.3 Capital Structure and Financial Performance

According to Modigliani and Miller (1958), the type of funds that a firm uses is not linked to its cost and there isn’t any existence of a capital structure that is optimal, hence it is irrelevant or do not influence the firm’s value. The tradeoff theory suggests that when trying to find an optimal capital structure, firms will trade off main benefits which is the tax deducted from interest and the bankruptcy costs of debt and equity financing (Myers, 1977). However, it cannot be concluded from this theory that interest tax shield has a substantial contribution to the debt ratios or the market value of a particular firm. The Majluf and Myers (1984) Pecking order theory argues that internal finance is opted for over external finance by firms since information asymmetry creates a problem between the firm’s agent and the owner. Hence, less debt capital will be used by firms
that are considered to be profitable and generate better earnings as compared to those that don’t generate high earnings.

Financial leverage affects the performance of organizations when measured by return on assets and investments (Baker, 1973). As the level of leverage increases, the firm’s savings on taxes increases up to a level when it reaches optimum such that taking on more leverage reduces profitability because of the agency costs that come with debt (Roden & Lewellen, 1995). According to Fama and French (1998) application of debt financing in excess brings about agency challenges in monitoring the investing behaviors of management staff. The management may find themselves holding excess cash flows which may influence them to undertake some projects for their own mileage as opposed to the wealth creation for the shareholders.

According to Jensen and Meckling (1984), debt has an influence on the quality of the investment opportunities that are undertaken by the management by forcing managers to invest in the projects, which add value to the shareholders. This in return minimizes agency and other related costs hence enhancing organization’s performance. Previous studies by different scholars indicate no link between capital structure and financial performance. For instance, Eldomiaty and Azim (2008) executed a study on the influences of capital structure on the firm’s financial performance and established that capital structure is positively related to the financial outcomes of the firms.

1.1.4 Commercial and Services Firms Listed at the Nairobi Securities Exchange

NSE was inaugurated as a voluntary brokers’ association in 1954, it is registered under the Societies Act. It was not until 1988 that NSE was privatised. In 2006, the NSE implemented Automated Trading System (ATS) to enable live trading on the basis of first come first served. This system was also linked to the Central Depository System.
(CDS) and the Central Bank of Kenya to facilitate trading in Government bonds. Since then, it has undergone various changes and innovations, including the abolishment of the aggregate foreign ownership cap of the NSE listed companies in 2015. The Capital Markets Authority (CMA) is the state regulatory body mandated with licensing and regulating the Nairobi Securities Exchange. Public listings and offers of securities issued and traded at the NSE are also approved by the CMA (NSE, 2017). There are presently 10 commercial and services companies registered at the NSE.

Commercial and service sector refers to a category of enterprises that provide services to commercial and retail customers. Some of the businesses listed under this category include expressly limited, Nation Media Group (NMG); Kenya Airways (KQ); Standard Group (SG); TPS Eastern Africa, Scan Group (SG), Uchumi Supermarket (US), Hutchings Biemer (HB), Longhorn Publishers (LP) and Atlas Development and Support services (ADSS). Despite their important role in the growth of the economy, commercial and service firms such as Uchumi and Kenya Airways have experienced difficulties which have affected their financial performance. This study intends to determine whether capital structure is one of the factors that influence their performance.

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. Capital structure decisions perform a major task in the general firm strategy so as to establish shareholder firm value in both commercial and services firms (Siddiquee, Khan, Shaem & Mahmud, 2009). Determining the optimal composition and level of long term financing and specific short term financing relative to equity can
enable a commercial and service firm to gain competitive advantages over its competitors (Haq & Zaheer, 2011).

Commercial and services firms that manage capital structure efficiently aims to ensure an optimum balance between profitability and risk. Recent activities by these firms indicate their awareness on the role of capital structure on firm performance. The additional issuance of new shares by Atlas Development and Support Services Limited which shall be cross-listed in both the NSE and the London Stock Exchange and the 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
Capital structure plays a critical part in financial performance as long as it’s used effectively and in efficient manner at its maximum level. Nevertheless, the question of what entails an optimal capital structure is still unanswered and with the finance circles remaining controversial (Kajola, 2010). There is no agreement on the nature of effects of capital structure on the profitability from both the existing theoretical and empirical studies. The information asymmetry proposition of Myers and Majluf (1984) proposes a negative correlation because companies regardless of their market position would rely on the retained earnings for expansion instead of costly external finance. On the other hand, MM’s tax/ interest shield proposition predicts a positive relationship since at higher income level, corporation would want to increase debt financing in their capital structure so as to shield their profits from taxation. Jensen and Meckling (1986) also
support that view and consider debt as disciplining tool that forces managers to invest in projects, which add value to shareholders hence enhancing firm’s performance.

Commercial and services companies listed in the NSE have embarked on massive use of debt to finance its capital structure with expectation of increasing their financial performances. Debt finance offers an opportunity for the firm increase its performance by facilitating acquisition of the productive assets (Anyanzwa, 2015). Financial analyst have argued in the support of debt use and considers debt finance as good in enhancing firms performance provided its acquired at the favorable rate and its proceeds utilized in a good way. However, in the recent past commercial and services firms with huge debts in their capital structure such as Kenya Airways and Uchumi Supermarkets have reported huge losses and found themselves in serious debt crises owing creditors more than their net worth (Juma, 2016).

Empirical evidence is largely inconsistent and quite varied on how the firm’s financial performance is affected by capital structure. Mahmoodi and Saeedi (2011) examined the effects of capital structure on firm performance in the Teran Stock Exchange and concluded that firm performance is not influenced by capital structure. Nirajini and Priya (2013) discovered a positive association between capital structure and financial performance. Sebnem and Vuran (2012) affirmed this when they found a positive link between the performance of a firm and the firm’s financial structure. A similar study by Barakat (2014) examined the effect of financial leverage and profitability in Saudi industrial firms and established an insignificant inverse association between financial leverage and share value.

Locally, Maina and Ishnail (2014) found no weighty link between the capital structure choice and the listed firm’s financial performance. The conclusion is contrary to Njeri
and Kagiri (2015) who noted that capital structure and financial discharge of listed commercial banks are positively correlated. Mwangi et al., (2014) found a statistically notable negative association between financial leverage and performance. Koech (2013) and Ogutu et al., (2015) affirmed this when they concluded there is an inverse link between the capital structure and financial performance. Ndung’u (2014) found that a rise in operating leverage increases the stock returns of a firm. The lack of consensus among the various scholars on the implication of capital structure on stock returns is reason enough to conduct further examination on the area of study. In addition, majority of the local studies done have concentrated on the impact of capital structure on firm performance in other sectors and not necessarily on commercial and services firms. More research needs to be done on the area of capital structure and financial performance. This paper sought to identify how capital structure influence firm performance of services and commercial firms listed at the NSE. It attempted to give an explanation to the research question; what is the effect of capital structure on financial performance of commercial and services firms listed at the NSE?

1.3 Objectives of the study

To determine the effect of capital structure on financial performance of commercial and services firms listed at the Nairobi Securities Exchange.

1.4 Value of the study

This study’s findings will be utilized as a reference by scholars, students and researchers who might want to undertake studies in the same field. The study will also help both researchers and scholars in identifying research gap in this field which will prompt and guide them in executing further studies.
Value of this study is to the various managers who are tasked with the management of commercial and services firms listed on the NSE; this study provides useful information and recommendations to assist them in making more informed management decisions leading to shareholders’ wealth maximization. The study increases the pool of knowledge available to assist both NSE listed companies and firms seeking to list in future to improve their performance and ensure sustainability.

The outcome of this study will also aid the various regulatory agencies when developing legislation and regulatory framework around companies’ capital structure. The regulators will thus consider this study as they formulate policies that will create a favorable environment for investors.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
The theoretical framework utilized in the study and a review of former studies on the same field is highlighted in this chapter. It entails theoretical review, determinants of financial performance, empirical review, the conceptual framework and a summary of the literature.

2.2 Theoretical framework
The presentation of the review of the relating theories that explains the associations between capital structure and financial performance is given in this chapter. Theoretical reviews covered are; Modigliani and Miller model, Trade-off theory, the Pecking Order theory, and the agency theory.

2.2.1 Modigliani and Miller Model
According to Modigliani and Miller (1958), a company’s capital structure is immaterial to the company's worth, supposing faultless markets and zero business deal charges. Modigliani and Miller (1963) presented the influence of business revenue levies on the company’s capital structure of a company and established that companies will upsurge their use of debt to exploit the duty deductibility of interest. Though, greater debt funding upsurges the likelihood of insolvency. Market symmetry must be real in which the value of using debt-financing equals increased peril of insolvency owing to the great leverage of companies. This was supported by Staking and Babbel (1995) who argued that they concurred with the hypothesis made by Modigliani and Miller.
Modigliani and Miller (1963) revised their previous opinion through integrating duty welfares as causes of the capital structure of companies. Important feature of tax policy is that interest is a tax-deductible outlay. Company which remits duties obtains partly counterweighing interest duty-shield in the form of smaller levies remitted. Consequently, as Modigliani and Miller (1963) propose, companies ought to expenditure equally considerable debt capital as possible acceptable to exploit their worth. Alongside with company tax policy, scholars were also concerned in investigating the situation of individual duties levied on persons.

2.2.2 Pecking Order Theory

According to this theory, advanced by Majluf and Myers (1984), no predefined optimal capital structure exists but instead asserts that, firms displays different preference for utilizing internal funds or retained earnings over external capital. It is the one of the most significant theories of company leverage and goes against the firm’s idea of having distinctive combination of equity and debt finance, which minimizes the corporation costs of funds. It suggests that the firm should follow a well-specified order of priority with regard to financing sources to minimize its information asymmetry costs, first choosing retained earnings, debt and finally raising equity as a last option. It advocates for retained earnings to be used first in funding long-term projects and when they are exhausted or not available, then debt is issued; and when it is insufficient or not available, equity is issued (Myers, 1984).

The explanation of the pecking order stems from the existence of the information asymmetry where managers are presumed to understand more about their company risk, prospects and project value than external investors including capital markets. According to Myers and Majluf (1984), investors places low value on the company
stock because of the inability of managers to convey information on the company prospects including the new investment opportunities identified. This in return makes managers who are believed to be at the core of company information to finance their project using readily available retained earnings. If the retained earnings are insufficient, managers will choose debt capital in the preference to issuing equity shares as they are undervalued in capital markets. The asymmetric information effect therefore favors the utilization of debt over equity and shows management confidence that the newly identified investment opportunity is profitable and the current share price is underpriced (Majluf & Myers, 1984).

2.2.3 Trade-Off Theory

This theory was proposed by Myers (1984). This theory holds that, every firm has its optimal capital structure, which can be determined drawing equilibrium between the costs and benefits of equity. As a result, a firm decides on how much debt capital and equity capital to include in their capital structure by comparing the costs and benefits derived from either source. Debt capital yields benefits such as tax shield though high debt levels in the capital structure can result to agency and bankruptcy expenses. Jensen & Meckling (1976) argue that agency expenses are brought about by divergence of interest among the different firm stakeholders and because information asymmetry.

Thus, including cost of agency into the trade-off theory signifies that a corporation ascertains its optimal financial structure by balancing the benefit of debt (the debt tax advantage) against expenses of excessive debt (financial distress) and the resultant equity agency expenses against debt agency costs. The theory further assert that, as firm increases debt in their capital structure, the marginal cost associated with debt increases while the marginal benefits associated with debt decreases until an optimal point is
reached. Beyond that point, the marginal costs of debt exceed the marginal benefits resulting to reduced firm value. In this regard, the firm should set an optimal financial structure in order to enhance its stock returns (Jensen & Meckling, 1976).

According to Myers (1984), firms with more tangible assets should exhibit higher debt ratios while firms possessing more intangible assets should depend more on equity capital because they are subject to lose of value in case of liquidation. Under this theory, firms should evaluate the various costs and benefits of each debt level and determine an optimal debt structure that balances the incremental costs and incremental benefits (debt tax shields against costs of bankruptcy). This further explains why firms are partly financed by equity and also partly financed by debt in their capital structure.

2.2.4 Agency Theory
The theory of agency exists when the principle is unable to do the business by himself and thus delegates this responsibility to the agent (Jensen & Meckling, 1976). The issue of agency when there is a contradiction between the goals and desires of the principle and the agent. The principle incurs a lot of costs in the process of monitoring the actions of the agent so as to ascertain whether the agents is working as per is interests and adequately serving is interests. The agency theory therefore offers a solution to the problems between the agent and the principle so as to offer lasting associations between them (Itiri, 2014). This concept is leans on the notion that the interests of the executives and shareholders are not perfectly affiliated in a manner that allows for easy attainment of the organizational goals. The theory is highly applicable in solving the issues between the managers and shareholders in making financial decisions (Aliu, 2010).

The Agency theory suggests that managers (agents) prefer to maintain huge cash flows despite lack of profitable investments so as to use the funds to serve their own interests
(Calabrese, 2011). The agency theory explains that capital structure decisions must seek to reduce the agency costs by reducing capital structure equity. This is done by increasing the debt financing which increases the firm’s market value as well as reducing the conflicts that may exist between managers of a firm and shareholders.

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). The theory is founded on the notion that manager’s behavior can be controlled by debt financing since the managers will adopt 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).

2.4 Determinants of Financial Performance

Factors that influence financial performance can either be external or internal to the firms that define the level of output. The internal factors are different for each firm and determine its financial performance. They arise from managerial decisions and the board. External ones include; exchange rate volatility, interest rates, inflation, economic growth, money supply among others. The internal factors include corporate governance, firm size, financial leverage, liquidity, management efficiency, capital, market power among others (Athanasoglou, Brissimis

2.4.1 Capital Structure

The balance between debt and equity in financing firm operations has some level of influence on the level of returns on equity and return on assets recorded in firms. As argued in the capital structure irrelevant theory, in perfect markets, it is assumed that
there is perfect flow of information hence no room for arbitrage (Lee, 2009). This means that the net worthy of an organization is not affected in any way by the leverage. However, in real world, taxes exist and affect the way organization operates in terms of their capital structure (Njoroge, 2014).

Usage of debt comes with some agency costs like the existence of constraints put by the firm providing debt on how an organization is to run its affairs (Lee, 2009). This may bring about inflexibility in undertaking some projects even if they promise greater return on equity (Amato & Burson, 2007). This may negatively affect the overall performance of the organization which will in turn affect its financial performance.

2.4.2 Firm Liquidity

Liquidity refers to the extent by which company meets its immediate obligations in full and in a timely way. Excessive liquidity lead to building up of idle resources that does not create any profits for the firm while low levels of liquidity on the other hand, lead to damage of company goodwill, reduce credit standings and it can also lead to compulsory liquidation of company’s assets. It cannot be doubted that each firm desires to attain the highest profitability by maintaining appropriate level of liquidity. However, magnifying profits at the expense of liquidity could cause serious trouble to the company, which can lead to financial insolvency as well. As a result, firm should properly manage their liquidity in order to maximize their profitability (Vieira, 2010).

Assets are said to be liquid if such assets can be swiftly be changed into cash. Whether a firm has or is coming up with readily available capital base to facilitate its operation, is a critical performance concern in relation to the firm’s liquidity. Liquidity of the firm is measured using liquidity ratios such as current ratios, cash ratios, quick ratios and variations in the firm’s working capital (Brealey et al., 2001). The capability of the firm
to pay its maturing obligations on a timely way is of vital importance and is closely related to firm’s performance and existence. The inability of the firm to maintain sufficient liquidity level can make the company insolvent and jeopardize its operations (Gitman, 2003).

2.4.3 Firm Size

The size of a listed firm is measured by its stock market capitalization. Firm size can also be assessed in terms of a firm’s total assets. Ikikii and Nzomi (2013) define stock market capitalization as the combined value of all company's issued shares listed on a national stock exchange. The higher the number of outstanding shares for a firm, holding other factors constant, the larger the market capitalization. Musebe (2015) noted that market capitalization is a key measure for investors in the determination of the yields from their investment. It is also a universally accepted metric for assessing the health of a publicly traded company and an approximation of the value of a business entity.

Firms, whose market capitalization is low, on average, realize greater returns than firms whose market capitalization is high (Banz, 1981). The assertion was supported by Idris and Bala (2015) who established that market capitalization has a notable negative impact on the returns of the stock market. The assertions are due to the fact that investors demand higher returns from smaller firms compared to larger firms due to the risky nature of smaller firms. Firm size can also be computed or measured by the sum of total assets for a firm (Pervan & Visic, 2012). Firm size was an independent variable in the study.
2.4.4 Age of the Firm

According to Sorensen and Stuart (2000), company’s age may have an effect on firms’ performance. They further noted that older firms may have organizational inertia which tends to make them inflexible which may result to their inability to appreciate the changes that occur in changing environment. However, Liargovas and Skandalis (2008), noted that older firms may have more skills because they have been in operation longer thus have more experience having enjoyed the benefits that come from learning and aren’t easily prone to the liabilities that result from newness, therefore they tend to have performance that is superior as compared to newer firms.

According to Loderer, Neusser, and Waelchli (2009), the relationship that exists between the age of a company and profitability is positive. However, it has also been observed that a firm’s performance may at times decline as companies grow older due to the fact that old age may lead to knowledge, abilities and skills being obsolete thereby resulting to decay in organizations. Agarwal and Gort (2002) this may explain why some older companies are usually taken over.

2.4.5 Macro-Economic Factors

Several studies have been undertaken to ascertain the effect of macroeconomic factors on performance of companies. The factors include but not limited to monetary aggregates, rate of interest, investment level in the economy, consumer price index, producer price index, GDP growth, inflation, financial depth and the degree of market efficiency. Kwon and Song (2011) carried out a research on mergers in the Korean market. He found out that the global financial challenges negatively influence the cumulative abnormal return of the acquiring company when upon the making of a merger announcement. He also stated that it may be possible that investors are more
aversive to large cash outflows during a period of crisis. Flannery and Protopapadakis (2002) pointed out that inflation and money supply are well documented as the two macro-economic factors that have a significant effect on shareholders returns.

2.5 Empirical Review

Many empirical studies, locally and globally support the connection between the capital structure and firm’s financial performance but these studies have produced varying outcomes.

2.5.1 Global Studies

Gill and Nahum (2013) studied the influence of capital structure on the manufacturing firms’ profitability among the American service. 272 listed firms were selected from the New York stock exchange from 2005 – 2007. The study adopted the regression and correlations analyses to approximate the purposes connecting to profitability (measured by ROA) to measure the capital structure. The consequences display an affirmative connection among short-term debt to profitability and total assets and between total debt to total assets and the service industry profitability. The outcome of this study indicates an optimistic association between long-term debt to profitability, short-term debt to total assets and profitability and among entire debt to profitability and the manufacturing industry’s total assets.

Mohohlo (2013) probed the bearing of capital structure firm's value at the Johannesburg Stock Exchange (JSE) listing. The focus was on a sample of 65 nonfinancial firms on JSE listing on grounds that regulations dictate the capital structure of financial firms. Secondary sources of data from listed firm’s databases, that is, Bloomberg and Mcgregor BFA over the ten year period from 2002 to 2011 were used. The secondary data analyzed in panel data form and subjected to regression analysis led to a deduction
that no statistical association exists between firm value and capital structure of JSE listed firms. While the financial structure of financial firms is regulated, all financial firms cannot have the same financial structure; the researcher ought to have included the financial firms and studied them separately to see if the relationship still holds for the financial firms.

Agu, Enekwe, and Eziedo (2014) explored the impact of financial leverage on the financial performance of Nigerian pharmaceutical firms. The study used secondary data for the year 2001 to 2012 a sample of three companies. The study employed Pearson correlation and regressions models to analyze data collected. It was established that both debt-equity ratio and debt ratio had a negative relation with profitability when measured using ROA. The study also found that the ration on interest coverage had a positive relation with profitability of pharmaceutical companies in Nigeria. However, the study revealed that debt to equity ratio, debt ratio debt ratio and interest coverage had insignificant impact on profitability of the pharmaceutical industry in Nigeria

Tifow and Sayilir (2015) examined capital structure and firm performance so as to establish if there exists any relationship. This study was conducted for the period between 2008 and 2013 on 130 manufacturing firms listed on Borsa Istanbul and panel data analysis was used. A negative notable association between leverage and the firm’s financial performance was established from the study.

2.5.2 Local Studies

Tale (2014) investigated the link among capital structure and the non-financial registered firms’ financial performance at the NSE listing between the periods January 2008 to December 2013. The study population was composed of all the non-financial firms listed and duly registered with capital market authority. Secondary information
used was got from financial statements of listed firms. Data was analyzed using a regression model. Financial performance was established to be absolutely connected to debt-to-equity proportion.

Maina and Ishnail (2014) studied the association between financial structure and performance of all firms on the NSE listing. Using a causal research design and secondary data extracted from books of accounts of NSE listed firms between 2002 and 2011; the researchers subjected the data to panel regression analysis using Gretl statistical software. The research concluded that the choice of capital structure measured by Debt to Equity (DE), Long Term Debt to Equity (LDE), Total Assets (TA) has no substantial effect on NSE listed firms performance denoted by ROA, ROE, and market value/book value.

Njeri and Kagiri (2015) probed the influence of financial structure on financial performance of banks on the NSE listing. Debt to equity ratio was the proxy for measuring capital structure while net profit margin, ROA and ROE were used to measure financial performance. The descriptive research study design was used and primary data obtained by administering questionnaires to 35 respondents who were mainly branch managers of listed banking institutions. The collected data was then subjected to correlation and multiple regression analysis, leading to the conclusion that 56.4% of listed commercial banks’ financial performance could be explained by the firm’s capital structure. Given that this study relied on views of branch managers as opposed to using available secondary data, the results may reflect the opinion of the respondents as opposed to the facts.

Mwangi and Birundu (2015) examined the impact of capital structure has on the SMEs’ financial performance in Thika County for the period 2009 to 2011. The research design
used in the study was a descriptive design and multiple regressions together with correlation analysis were utilized. The study concluded that capital structure, firm size and asset turnover are not significant in the financial performance of the firms under study.

2.6 Conceptual Framework

Usage of debt comes with some agency costs like the existence of constraints put by the firm providing debt on how an organization is to run its affairs (Lee, 2009). This may negatively affect the overall performance of the organization which will in turn affect its financial performance. The current study seeks to investigate whether this relationship holds. The factors characterized here are financial performance and capital structure. Capital structure is the independent variable as measured by debt ratio. Size of the firm as measured by natural logarithm of total assets and liquidity as measured by the current ratio will be the control variables. ROA will be used to measure the financial performance.
2.7 Summary of the Literature Review

Many theories have attempted to explain the concept of capital structure. Four theories discussed in this theoretical review are; Pecking order theory, Modigliani and miller model, the trade-off theory and the agency theory. Key determinants of financial performance have been discussed in this section as well. Many studies have been carried out both globally and locally on capital structure and financial performance. These studies’ findings have also been discussed in this chapter.
The lack of consensus among the various scholars on how financial performance is influenced by capital structure is enough reason to conduct further examination on the area of study. Saeedi and Mahmoodi (2011) did the study on the effects of capital structure on performance of firms in the Tehran Stock Exchange and noted that the financial performance was not influenced by the capital structure. Nirajini and Priya (2013) discovered a positive association between capital structure and the firm's financial performance. Maina and Ishnail (2014) found no weighty association between capital structure choice and the listed firms’ financial performance. The conclusion is contrary to Njeri and Kagiri (2015) who noted that capital structure and financial performance of listed commercial banks are positively correlated. This study contributed to this debate by investigating the impacts of capital structure on financial performance of commercial and services firms in the NSE listing.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter describes methods of research applied to objectively to examine the effect of capital structure on the firm’s financial performance. It also shows the population of study, research design, data collection and analysis criteria.

3.2 Research Design

These are the procedures utilized by the researcher in testing the association between the dependent and independent variables (Khan, 2008). Descriptive cross-sectional design was used. A descriptive study entails a description of all the elements of the population. It permits estimates a section of a population possess these traits. Cross-sectional study methods are done once and they represent summary at a given timeframe (Cooper & Schindler, 2008).

3.3 Population

Burns and Burns (2008) define a population as the characters of interest upon which the study seeks to draw deductions. The population of the study comprised of all the 12 commercial and services firms listed at the NSE from 1st January 2013 to 31st December 2013 (see appendix I).

3.4 Data Collection

Data was exclusively collected from a secondary source. It is always a regulatory requirement for firms listed at the NSE to report their values annually to the Capital Markets Authority. The secondary data was obtained solely from the Annual published financial reports of the listed firms in commercial and services segment for the period
contained from January 2013 to December 2017 and was captured in a data collection sheet. The end result was information detailing capital structure and financial performance on annual basis. The data that was collected was firms’, current liabilities, current assets, revenue, long term liabilities and equity.

3.5 Data Analysis

The collected data was sorted, classified, coded and then entered in tables for easier analysis. Analysis of the data was done using both inferential and the descriptive statistics. SPSS computer package version 21 was used in the analysis since it’s more user-friendly. The data was inputted into the SPSS and studied using descriptive, correlation and regression analyses. In descriptive statistics, the study used mean, standard deviation and scatter plot. In inferential statistics, the study used multivariate regression analysis to examine the association between the exogenous and the endogenous variables: capital structure, firm size and liquidity.

3.5.1 Diagnostic Tests

Linearity uses the mathematical equation \( Y=bX \) where \( c \) is a constant to show the association between variable \( X \) and \( Y \). The linearity test was obtained through the scatterplot testing or F-statistic in ANOVA. Stationarity test is a process where the statistical properties such as mean, autocorrelation and variance structure do not change with time. Stationarity was obtained from the run sequence plot. Normality is a test for the assumption that the residual of the response variable are normally distributed around the mean. This was determined by Shapiro-walk test or Kolmogorov-Smirnov test. Autocorrelation is the measurement of the similarity between a certain time series and a lagged value of the same time series over successive time intervals. It was tested using Durbin-Watson statistic (Khan, 2008).
Multicollinearity is said to occur when there is a nearly exact or exact linear correlation among two or more of the independent variables. This was tested by the determinant of the correlation matrices, which varies from zero to one. Orthogonal independent variable is an indication that the determinant is one while it is zero if there is absolute linear dependence between them and as it approaches to zero then the multicollinearity becomes more intense. Variance Inflation Factors (VIF) and tolerance levels were also carried out to show the degree of multicollinearity (Burns & Burns, 2008).

3.5.2 Analytical Model

Using the collected data, the researcher conducted a regression analysis to determine the extent of the association between capital structure and financial performance. The regression model below was adopted:

\[ Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \epsilon. \]

Where: \( Y = \) Financial performance as measured by return on assets on an annual basis  
\( \beta_0 = \) intercept of the regression equation.  
\( \beta_1, \beta_2, \text{ and } \beta_3 = \) are the regression slope  
\( X_1 = \) Capital structure as measured by debt ratio given as long term debt divided by shareholders equity and long term debt on an annual basis  
\( X_2 = \) Firm size as measured by natural logarithm of total assets on an annual basis  
\( X_3 = \) Liquidity as measured by current ratio on an annual basis  
\( \epsilon = \) error term
3.5.3 Tests of Significance

Both the F-test and the t-test were used at 95% confidence level to test the statistical significance. The F statistic was used in establishing a statistical significance of regression equation whereas the t statistic was applied in testing statistical significance coefficients.
CHAPTER FOUR
DATA ANALYSIS, FINDINGS AND INTERPRETATION

4.1 Introduction

This section represents study’s findings established on the objectives of research. This chapter focused on collected data analysis from CMA to establish the impacts of capital structure on financial performance of commercial and service firms quoted at the NSE. Using descriptive statistics, correlation analysis and regression analysis, the results of the study were presented in form of tables for easy interpretation.

4.2 Diagnostic Tests

The researcher carried out diagnostic tests on the collected data. Cameron & Trivedi’s IM-test was used to test for heteroscedasticity. The null hypothesis stated that there is no heteroscedasticity. Results in Table 4.1 show that the p-value (p=0.3629) is greater than the critical value of 0.05. Therefore, we fail to reject the null hypothesis and conclude that the variance is homogenous.

**Table 4.1: Cameron & Trivedi's decomposition of IM-test**

<table>
<thead>
<tr>
<th>Source</th>
<th>chi2</th>
<th>Df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heteroskedasticity</td>
<td>18.42</td>
<td>17</td>
<td>0.3629</td>
</tr>
</tbody>
</table>

*Source: Research Findings (2018)*

Shapiro-walk test and Kolmogorov-Smirnov test was used in normality test. The null hypothesis for the test was that the secondary data wasn’t normal. If the p-value recorded was more than 0.05, the researcher would reject it. The test findings are as illustrated in table 4.2.
Table 4.2: Normality Test

<table>
<thead>
<tr>
<th>ROA</th>
<th>Kolmogorov-Smirnov&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Df</td>
</tr>
<tr>
<td>Capital structure</td>
<td>.149</td>
<td>55</td>
</tr>
<tr>
<td>Firm size</td>
<td>.156</td>
<td>55</td>
</tr>
<tr>
<td>Firm liquidity</td>
<td>.172</td>
<td>55</td>
</tr>
</tbody>
</table>

<sup>a</sup> Lilliefors Significance Correction

Source: Research Findings (2018)

Both Kolmogorov-Smirnova and Shapiro-Wilk tests recorded <i>p</i>-values greater than 0.05 implying that the data used in research was distributed normally and therefore the null hypothesis was rejected. This data was therefore appropriate for use to conduct parametric tests such as Pearson’s correlation, regression analysis and analysis of variance.

Autocorrelation tests were executed so as to check for correlation of error terms across time periods. Autocorrelation was tested by use of the Durbin Watson test. A durbin-watson statistic of 1.971 indicated that the variable residuals were not serially correlated since the value was within the acceptable range of between 1.5 and 2.5.
### Table 4.3: Autocorrelation Test

<table>
<thead>
<tr>
<th>Mode</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.534a</td>
<td>.285</td>
<td>.243</td>
<td>.1495368</td>
<td>1.971</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Liquidity, Firm size, Capital structure

b. Dependent Variable: ROA

**Source: Research Findings (2018)**

#### 4.3 Descriptive Analysis

Descriptive statistics gives a presentation of the mean, maximum and minimum values of variables applied together with their standard deviations in this study. Table 4.4 shows the descriptive statistics for the variables applied for the research. An analysis of all the variables was obtained using SPSS software for the period of five years (2013 to 2017) on an annual basis.

### Table 4.4: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>55</td>
<td>-.6137</td>
<td>.2209</td>
<td>-.028580</td>
<td>.1718727</td>
</tr>
<tr>
<td>Capital structure</td>
<td>55</td>
<td>-.4100</td>
<td>1.6600</td>
<td>.257455</td>
<td>.3770019</td>
</tr>
<tr>
<td>Firm size</td>
<td>55</td>
<td>7.6541</td>
<td>11.2602</td>
<td>9.587173</td>
<td>.8294952</td>
</tr>
<tr>
<td>Liquidity</td>
<td>55</td>
<td>.0827</td>
<td>3.3886</td>
<td>1.524364</td>
<td>.8772459</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>55</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Research Findings (2018)**
Financial performance had -0.0286 as mean with 0.1718 standard deviation. Capital structure had a 0.2575 mean and 0.3770 standard deviation. Firm size had a mean of 9.5872 and a standard deviation of 0.8295 while liquidity recorded a 1.5244 mean with a 0.0877 standard deviation.

4.4 Correlation Analysis
Correlation analysis are used to test whether a relationship exists between two variables and often range between (-) strong negative correlation and (+) perfect positive correlation. The study employed the Pearson correlation to analyze the level of correlation between the financial performance of service and commercial firms quoted at the NSE and the independent variables for this study (capital structure, firm size and liquidity).

The study found out that there was a negative but statistically insignificant correlation (r = -0.112, p = .416) between capital structure and financial performance. The study further established that a positive and significant correlation exists between liquidity and financial performance of quoted commercial and service firms as evidenced by (r = .502, p = .000). Firm size was found to have a weak positive but insignificant association with financial performance as evidenced by (r = .036, p = .796). Although the independent variables had an association to each other, the association was not strong to cause Multicollinearity as all the r values were less than 0.70. This implies that there was no Multicollinearity among the independent variables and therefore they can be used as determinants of financial performance among commercial and service firms listed at the NSE in regression analysis.
Table 4.5: Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>Capital structure</th>
<th>Firm size</th>
<th>Liquidity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ROA</strong> Pearson</td>
<td>1</td>
<td>-.112</td>
<td>.036</td>
<td>.502**</td>
</tr>
<tr>
<td>Correlation</td>
<td>Sig. (2-tailed)</td>
<td>.416</td>
<td>.796</td>
<td>.000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>55</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td><strong>Capital structure</strong> Pearson</td>
<td>-.112</td>
<td>1</td>
<td>.090</td>
<td>-.286*</td>
</tr>
<tr>
<td>Correlation</td>
<td>Sig. (2-tailed)</td>
<td>.416</td>
<td>.515</td>
<td>.034</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>55</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td><strong>Firm size</strong> Pearson</td>
<td>.036</td>
<td>.090</td>
<td>1</td>
<td>-.273*</td>
</tr>
<tr>
<td>Correlation</td>
<td>Sig. (2-tailed)</td>
<td>.796</td>
<td>.515</td>
<td>.044</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>55</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td><strong>Liquidity</strong> Pearson</td>
<td>.502**</td>
<td>-.286*</td>
<td>-.273*</td>
<td>1</td>
</tr>
<tr>
<td>Correlation</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.034</td>
<td>.044</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>55</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Research Findings (2018)
4.6 Regression Analysis

Financial performance of commercial and service companies listed at the NSE was regressed against three predictor variables; capital structure, firm size and liquidity. The regression analysis was executed at 5% significance level. The study obtained the model summary statistics as illustrated in table 4.6 below.

Table 4.6: Model Summary

<table>
<thead>
<tr>
<th>Mode</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.534(^{a})</td>
<td>.285</td>
<td>.243</td>
<td>.1495368</td>
<td>1.971</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Liquidity, Firm size, Capital structure

b. Dependent Variable: ROA

Source: Research Findings (2018)

R squared is the coefficient of determination and depicts the variations in the response variable that is brought about by the changes in the predictor variables. From the outcome in table 4.6 above, the value of R square was 0.285, a discovery that 28.5 percent of the deviations in financial performance of commercial and service firms quoted at the NSE are caused by changes in capital structure, liquidity and firm size of the firms. Other variables not included in the model justify for 71.5 percent of the variations in financial performance of service and commercial firms quoted at the NSE. Also, the results revealed that there exists a strong relationship among the selected independent variables and the financial performance of commercial and service companies listed at the NSE as shown by the correlation coefficient (R) equal to 0.534.
Table 4.7: Analysis of Variance

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.455</td>
<td>3</td>
<td>.152</td>
<td>6.779</td>
<td>.001</td>
</tr>
<tr>
<td>1 Residual</td>
<td>1.140</td>
<td>51</td>
<td>.022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.595</td>
<td>54</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: ROA

b. Predictors: (Constant), Liquidity, Firm size, Capital structure

Source: Research findings (2018)

The significance value is 0.001 which is less than p=0.05. This implies that the model was statistically significant in predicting how capital structure, liquidity and firm size affects financial performance of commercial and service companies listed at the NSE.

The researcher used t-test to determine the significance of each individual variable used in this study as a predictor of financial performance of commercial and service firms listed at the NSE. The p-value under sig. column was used as an indicator of the significance of the association between the dependent and the independent variables. At 95% level of confidence, a p-value of less than 0.05 was interpreted as a statistical significance measure. As such, a p-value above 0.05 shows that a statistically insignificant association between the dependent and the independent variables. The findings are as indicated in table 4.8.
Table 4.8: Model Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-.570</td>
<td>.259</td>
<td></td>
<td>-2.203</td>
</tr>
<tr>
<td>Capital structure</td>
<td>.015</td>
<td>.056</td>
<td>.032</td>
<td>.261</td>
</tr>
<tr>
<td>Firm size</td>
<td>.039</td>
<td>.026</td>
<td>.186</td>
<td>1.512</td>
</tr>
<tr>
<td>Liquidity</td>
<td>.110</td>
<td>.025</td>
<td>.562</td>
<td>4.392</td>
</tr>
</tbody>
</table>

a. Dependent Variable: ROA

Source: Research Findings (2018)

From the above results, it is evident that liquidity produced positive and statistically significant values for this study (high t-value (4.392), p < 0.05). Capital structure and firm size produced negative but statistically insignificant values for this study as shown by p values that are more than 5%.

The following regression equation was estimated:

\[ Y = -0.570 + 0.015X_1 + 0.039X_2 + 0.110X_3 \]

Where,

\[ Y = \text{Financial performance} \]

\[ X_1 = \text{Capital structure} \]

\[ X_2 = \text{Firm size} \]
$X_3 = \text{Firm liquidity}$

On the estimated regression model above, the constant = -0.570 shows that if selected dependent variables (capital structure, firm size and liquidity) were rated zero, commercial and servicefirms' financial performance quoted at the NSE would be -0.570. A unit increase in capital structure would result to an increase in financial performance of commercial and service companies listed at the NSE by 0.015. A unit increase in liquidity would result to an increase in financial performance of commercial and servicefirms quoted at the NSE by 0.110 while a unit increase in firm size would lead to an increase in financial performance of commercial and service companies listed at the NSE by 0.039.

4.7 Discussion of Research Findings

The research purposed to explore the effect of capital structure on financial performance of commercial and servicefirms quoted at the NSE. Capital structure as measured by debt ratio, liquidity as measured by current ratio and firm size as measured by the natural logarithm of total assets were the independent variables while financial performance of commercial and service companies listed at the NSE as measured by return on assets on an annual basis was the dependent variable. The effect of each of the independent variable on the dependent variable was analyzed in terms of strength and direction.

The Pearson correlation coefficients between the variables revealed that a strong positive correlation exists between liquidity and financial performance of service and commercial firms quoted at the NSE. The association between firm size and financial performance of commercial and servicefirms quoted at the NSE was found to be weak positive and insignificant. The study also showed that there exist a weak negative
association between capital structure and financial performance of commercial and service firms quoted at the NSE.

The model summary revealed that the independent variables: capital structure, firm size and liquidity explains 28.5% of variation in the dependent variable as depicted by an $R^2$ value implying that other factors were not included in the model that account for 71.5% of changes in financial performance of service and commercial companies listed at the NSE. The model is fit at 95% confidence level as the F-value was 6.779. Therefore, the overall multiple regression model is statistically significant and suitable in predicting how the independent variables selected affects financial performance of commercial and service firms quoted at the NSE.

The findings of this study are in line with Agu, Enekwe, and Eziedo (2014) who explored the impact of financial leverage on the financial performance of Nigerian pharmaceutical firms. The study used secondary data for the year 2001 to 2012 a sample of three companies. The study employed Pearson correlation and regressions models to analyze data collected. It was established that both debt-equity ratio and debt ratio had a negative relation with profitability when measured using ROA. The study also found that the ration on interest coverage had a positive relation with profitability of pharmaceutical companies in Nigeria. However, the study revealed that debt to equity ratio, debt ratio debt ratio and interest coverage had insignificant impact on profitability of the pharmaceutical industry in Nigeria.

This study is in agreement with Maina and Ishnail (2014) who studied the association between capital structure and performance of all firms on the NSE listing. Using a causal research design and secondary data extracted from books of accounts of NSE listed firms between 2002 and 2011; the researchers subjected the data to panel
regression analysis using Gretl statistical software. The research concluded that the choice of capital structure measured by Debt to Equity (DE), Long Term Debt to Equity (LDE), Total Assets (TA) has no substantial effect on NSE listed firms performance denoted by ROA, ROE, and market value/book value.

This study differs with Tale (2014) who investigated the link among capital structure and the non-financial registered firms’ financial performance at the NSE listing between the periods January 2008 to December 2013. The study population was composed of all the non-financial firms listed and duly registered with capital market authority. Secondary information used was got from financial statements of listed firms. Data was analyzed using a regression model. Financial performance was established to be absolutely connected to debt-to-equity proportion.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This section summarizes the previous chapter’s findings, conclusion and study limitations. The section also elucidates the policy recommendations that policy makers can implement to achieve the expected financial performance of commercial and service companies listed at the NSE. Finally, suggestions for further research, which could be of great use to future researchers, are presented.

5.2 Summary of Findings
The study was investigating the effect of capital structure on financial performance of commercial and service companies enlisted at the NSE. The independent variables for the study were capital structure, firm size and liquidity. The study adopted a descriptive cross-sectional research design. CMA reports were used to retrieve secondary data which were analyzed using SPSS software version 21. The study used annual data for the 12 commercial and service firms listed at the NSE covering a five year time frame as from January 2013 to December 2017.

Based on correlation analysis’ outcomes, a strong positive correlation exists between liquidity and financial performance of service and commercial firms quoted at the NSE. The association between capital structure and financial performance of commercial and service firms quoted at the NSE was found to be weak and negative. The study also showed that there exist a weak positive association between firm size and financial performance of commercial and service firms listed at the NSE.
The co-efficient of determination R-square value was 0.285 implying that the predictor variables selected for this study explains 28.5% of changes in the dependent variable. This means that there are other factors not included in this model that account for 71.5% of changes in financial performance of commercial and commercial companies quoted at the NSE. The model is fit at 95% confidence level and F-value of 6.779. Therefore, the overall multiple regression model was statistically significant and thus suitable in explaining how the financial performance of the commercial and service companies quoted at the NSE is affected by the selected independent variables.

The regression results show that when all the independent variables selected for the study have zero value, financial performance of commercial and service companies listed at the NSE would be -0.570. A unit increase in capital structure would result to an increase in financial performance of commercial and service companies listed at the NSE by 0.015. A unit rise in liquidity would result to a rise in financial performance of commercial and service firms quoted at the NSE by 0.110 while a unit increase in firm size would cause an increase in financial performance of commercial and service companies listed at the NSE by 0.039.

5.3 Conclusion
It can be concluded from the results that financial performance of commercial and service companies listed at the NSE is significantly affected by capital structure, firm size and liquidity of the companies. Capital structure was noted to have a positive but statistically insignificant association with financial performance of commercial and service firms listed at the NSE and this means an increase in leverage leads to an increase in financial performance though not to a significant extent.
The study discovered that liquidity had a positive and significant impact on financial performance of commercial and service companies quoted at the NSE and therefore it is concluded that higher levels of liquidity leads to an increase in financial performance. Firm size was found to be statistically insignificant determinant of financial performance of commercial and service companies quoted at the NSE and therefore this study concludes that firm size does not significantly influence financial performance of commercial and service companies quoted at the NSE.

This study concludes that independent variables chosen for this study capital structure, firm size and liquidity affect to a large extent financial performance of service and commercial firms quoted at the NSE. It could be therefore concluded that these variables significantly affect financial performance as depicted by the p value of ANOVA summary. Since the three independent variables explain 28.5% of changes in financial performance of commercial and service companies listed at the NSE imply that the variables not included in the model explain 71.5% of changes in financial performance.

This finding concurs with Maina and Ishnail (2014) who studied the association between capital structure and performance of all firms on the NSE listing. Using a causal research design and secondary data extracted from books of accounts of NSE listed firms between 2002 and 2011; the researchers subjected the data to panel regression analysis using Gretl statistical software. The research concluded that the choice of capital structure measured by Debt to Equity (DE), Long Term Debt to Equity (LDE), Total Assets (TA) has no substantial effect on NSE listed firms performance denoted by ROA, ROE, and market value/book value.
5.4 Recommendations

Capital structure was found to have an insignificant positive effect on financial performance of commercial and service companies quoted at the NSE. The research therefore recommends that when firms are setting their capital structure they should strike a balance between the tax savings benefit of debt and bankruptcy costs linked with borrowing. High levels of debt has been found to impact positively on financial performance of listed commercial and service firms from the findings of this study and so firm managers should maintain debt in levels that impact positively on financial performance to ensure the goal of maximizing shareholders’ wealth is attained.

The study found out that a positive relationship exists between financial performance and liquidity position. This study recommends that a comprehensive assessment of listed commercial and service firm’s immediate liquidity position should be undertaken to ensure the company is operating at sufficient levels of liquidity that will lead to improved financial performance of firms. This is because a firm’s liquidity position is of high importance since it influences the firm’s current operations.

The study established that there was a positive influence of firm size on financial performance of commercial and service firms quoted at the NSE though not significant. This study gives a recommendation that sufficient strategies ought to be established by managers of these firms for enhancement and growth of their financial performance by increasing their assets. Listed commercial and service firms and all firms in general should work on increasing their assets that will lead to an increase in financial performance because this translates to improved shareholder wealth which is the main goal of a firm.
5.5 Limitations of the Study
The scope of this study was for five years 2013-2017. It has not been determined if the results would hold for a longer study period. Furthermore it is uncertain whether similar findings would result beyond 2017. A longer study period is more reliable as it will take into account major happenings not accounted for in this study.

One of the study’s limitations of was the quality of the data. It is illusion to derive conclusions from the study since the legitimacy of the situation cannot be ascertained. The data that has been used is only assumed to be accurate. The measures used may keep on deviating from one year to another subject to prevailing condition. Secondary data that had already been retrieved was utilized for the study, unlike the primary data which is first-hand information. The study also considered selected determinants and not all the factors affecting financial performance of service and commercial companies quoted at the NSE mainly due to limitation of data availability.

For data analysis purposes, the researcher applied a 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 relationship between two or more variables may not hold.

5.6 Suggestions for Further Research
This study focused on capital structure and financial performance of service and commercial firms quoted at the NSE and relied on secondary data. A research study where data collection depends on primary data i.e. in depth questionnaires and
interviews covering all the 12 commercial and service firms listed at the NSE is recommended so as to compliment this research.

The study was not exhaustive of the independent variables influencing financial performance of commercial and service firms quoted at the NSE and it’s recommended that further studies be carried out to incorporate other variables like management efficiency, growth opportunities, profitability, industry practices, age of the firm, political stability and other macro-economic variables. Establishing the impact of each variable on financial performance of service and commercial companies quoted at the NSE will enable policy makers know what tool to use when maximizing shareholder’s wealth.

The 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 2000 to date and this can help confirm or disapprove this study’s findings. The study limited itself by focusing on listed commercial and service firms at the NSE. The recommendations of this study are that further studies be conducted on other non-listed commercial and service firms operating in Kenya. Finally, due to the imperfections of regression models, other models such like Vector Error Correction Model (VECM) can be used in explaining the various relationships between variables.
REFERENCES


NSE (2017). The organization website - www.nse.co.ke


APPENDICES

Appendix 1: Listed Commercial and Service firms at NSE

1. Atlas Development and Support Services
2. Express Ltd
3. Hutchings Biemer Ltd
4. Kenya Airways Ltd
5. Longhorn Kenya Ltd
6. Nation Media Group
7. Scangroup Ltd
8. Standard Group Ltd
9. TPS Eastern, Africa (Serena) Ltd
10. Uchumi Supermarket Ltd