EFFECT OF CAPITAL STRUCTURE ON STOCK RETURNS OF MANUFACTURING AND ALLIED FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

\mathbf{BY}

ANTHONY KARAGO MBURU

D63/85206/2016

A RESEARCH PROJECT SUBMITTED IN PARTIAL

FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD

OF THE DEGREE OF MASTER OF SCIENCE IN FINANCE,

SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

DECLARATION

I, the undersigned, declare that	at this is my original work and has not been presented to
any institution or university of	ther than the University of Nairobi for examination.
Signed:	Date:
ANTHONY KARAGO MBU	URU
D63/85206/2016	
This research project has been	en submitted for examination with my approval as the
University Supervisor.	
Signed:	Date:
MR. JAMES KARANJA	
Lecturer, Department of Finan	nce and Accounting

School of Business, University of Nairobi

ACKNOWLEDGEMENTS

First and foremost, I am forever indebted to the all- powerful Almighty GOD for blessings showed on me and for being my guide throughout the study. I wish to take this opportunity to thank all the lecturers of The University Of Nairobi for their professional support either directly or indirectly in making the undertaking of this research work a success. My sincere gratitude goes to my supervisor Mr. James Karanja, for his exemplary dedicated supervision and support. Your approach to teaching greatly inspired me. My sincere thanks also extend to Dr. Mirie Mwangi for his invaluable guidance from inception of this project.

To God, be all the Glory.

DEDICATION

I dedicate this Research Project Report to my dearest mother Selina Njeri Kinundu, my sister Jane and brother Stephen for their prayers, love, great moral support and encouragement that has enabled me reach this height.

TABLE OF CONTENTS

DECLARATIONii
ACKNOWLEDGEMENTS iii
DEDICATIONiv
LIST OF TABLES viii
LIST OF FIGURESix
LIST OF ABBREVIATIONSx
ABSTRACTxi
CHAPTER ONE1
INTRODUCTION1
1.1 Background of the Study1
1.1.1 Capital Structure
1.1.2 Stock Returns
1.1.3 Effect of Capital Structure on Stock Returns4
1.1.4 Manufacturing and Allied Firms Listed at the Nairobi Securities Exchange 6
1.2 Research Problem7
1.3 Objectives of the study9
CHAPTER TWO11
LITERATURE REVIEW11
2.1 Introduction
2.2 Theoretical framework
2.2.1 Modigliani and Miller Model
2.2.2 Pecking Order Theory12
2.2.3 Trade-Off Theory
2.2.4 Agency Theory14
2.4 Determinants of Stock Returns
2.4.1 Capital Structure16

	2.4.2 Market Sentiments	.16
	2.4.3 Industry Performance	.17
	2.4.4 Company News and Performance	.18
	2.4.5 Firm Size.	.18
	2.4.6 Firm Liquidity	.19
2	.5 Empirical Review	.20
	2.5.1 Global Studies	.20
	2.5.2 Local Studies	.22
2	.6 Conceptual Framework	.23
2	.7 Summary of the Literature Review	.25
СН	APTER THREE	.27
RE	SEARCH METHODOLOGY	.27
3	.1 Introduction	.27
3	.2 Research Design	.27
3	.3 Population	.27
3	.4 Data Collection	.27
3	.5 Data Analysis	.28
	3.5.1 Analytical Model	.28
	3.5.2 Tests of Significance	.29
СН	APTER FOUR	.30
DA	TA ANALYSIS, FINDINGS AND INTERPRETATION	.30
4	.1 Introduction	.30
4	.2 Diagnostic Tests	.30
4	.3 Descriptive Analysis	.31
4	.4 Correlation Analysis	.32
4	.6 Regression Analysis	.34
4	.7 Discussion of Research Findings	.37

CHAPTER FIVE	40
SUMMARY, CONCLUSION AND RECOMMENDATIONS	40
5.1 Introduction	40
5.2 Summary of Findings	40
5.3 Conclusion	41
5.4 Recommendations	43
5.5 Limitations of the Study	44
5.6 Suggestions for Further Research	45
REFERENCES	46

LIST OF TABLES

Table 4.1: Cameron & Trivedi's decomposition of IM-test	30
Table 4.2: Normality Test	31
Table 4.3: Descriptive Statistics	32
Table 4.3: Correlation Analysis	33
Table 4.4: Model Summary	34
Table 4.5: Analysis of Variance	35
Table 4.6: Model Coefficients	

LIST OF FIGURES

Figure 2.1: The Conce	ntual Model	25
riguic 2.1. The Conce	pluar Mouci	

LIST OF ABBREVIATIONS

ATS Automated Trading System

CMA Capital Market Authority

EPS Earnings Per Share

NSE Nairobi Securities Exchange

ROA Return on Assets

ROE Return on Equity

SPSS Statistical Package for Social Sciences

ABSTRACT

Capital structure plays an important role in firm's stock return provided it is utilized efficiently and in an effective manner at its optimal level. However, the questions of what constitutes an optimal capital structure remains unanswered and the most controversial issue in the finance circles. There is no agreement on the nature of effects of capital structure on the returns from both the theoretical and different 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 utilize more debt finance in their capital structure in order to shield their profits from taxation The aim of this study was to ascertain the effect of capital structure on stock returns of manufacturing and allied firms listed at the NSE. The population for the study was all the 9 manufacturing and allied companies listed at the NSE. The independent variables for the study were capital structure as measured by debt ratio, profitability as measured by return on equity, liquidity as measured by current ratio and firm size as measured by natural logarithm of total assets. Stock return was the dependent variable and was measured by movement in share prices and dividend issued. Secondary data was collected for a period of 10 years (January 2007 to December 2016) on an annual basis. The study employed a descriptive cross-sectional research design and a multiple linear regression model was used to analyze the relationship between the variables. Data analysis was undertaken using the statistical package for social sciences. The results of the study produced R-square value of 0.175 which means that about 17.5 percent of the variation in stock returns of manufacturing and allied firms listed at the NSE can be explained by the four selected independent variables while 82.5 percent in the variation of stock returns of manufacturing and allied 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 weak correlation with stock returns of manufacturing and allied firms listed at the NSE (R=0.418). ANOVA results show that the F statistic was significant at 5% level with a p=0.000. Therefore the model was fit to explain the relationship between the selected variables. The results further revealed that profitability and liquidity produced positive and statistically significant values for this study. Capital structure produced negative but statistically significant values while firm size was found to be a statistically insignificant determinant of stock returns of manufacturing and allied firms listed at the NSE. This study recommends when firms are setting their capital structure they should strike a balance between the tax savings benefit of debt and bankruptcy costs associated with borrowing. High levels of debt has been found to reduce stock returns of listed manufacturing and allied firms from the findings of this study and so firm managers should maintain debt in levels that do not impact negatively on stock returns to ensure the goal of maximizing shareholders' wealth is attained.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

One of the most important 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). In one manner or another, business activities must be funded. Without funds to support working capital requirement and fixed assets, business might not exist. Almost in every aspects of fixed asset investment decision, capital structure decision is very important one because it affects the profitability of the company. Proper attention and care should then be given consideration while making the decision of capital structure in order to enhance firms' performance and maximize shareholders wealth (Nyamita, 2014). Debt financing can lead to better performance of a corporation and expansion as well as failure of a corporation. 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 theory of Modigliani and Miller (1958) 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 optimal capital structure, hence the capital structure of a firm is not relevant or has no influence on the value of a firm. The trade-off theory suggests that for a firm to achieve an optimal capital structure, there must be a tradeoff between benefits-costs of borrowing and equity financing. The main gain linked with borrowing is tax deductibility of interest and the cost to be incurred are bankruptcy

and agency costs (Jensen & Meckling, 1967). According to the pecking order theory, 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).

The issuance of debt finance through the capital market in Kenya is becoming more and more common. Manufacturing and allied companies listed at the NSE are accumulating massive debts in their capital structure as a way of raising fresh finance to fund operations and execute development projects through capital market (Anyanzwa, 2015). For instance, regional beer maker East African Breweries Ltd (EABL) have established the foundation for debt financing by borrowing millions of dollars from the debt market. Several firms use debt to leverage on their capital in order to enhance profit levels. However, ability of debt finance to improve performance or enhance returns varies from one firm to another depending on prevailing economic conditions (Maher & Andersson, 1999).

1.1.1 Capital Structure

According to Rehman (2013), capital structure is about how entities employ debt and equity as far as financing their assets is concerned. It is a financial tactic that encompasses the utilization of additional borrowed funds (fixed-cost debt instruments) to maximize the return on investment (Al-Otaibi, 2013). Capital structure explains the relation between owner's funds and borrowed funds that makes up a firms financing mix. Capital structure can also be defined as utilization of a third party's funds to finance a firm that might lead to an increase in operating profit and taxes (Barakat, 2014). Debt can take different forms including bond issuance or long term

notes payables while shareholders equity might take the form of common stock which has no preference, preference shares and undistributed earnings (Harris & Raviv, 1991).

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 free cash flow problems by enhancing managerial behavior while the expenses of debt financing include agency expenses and bankruptcy cost which results from the conflicts between shareholders and debt holders (Fama & French, 2002). 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 ratio of debt 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 Stock Returns

Stock return refers to the gain or loss of the value of a share during a specific period usually quoted as a percentage. It consists of capital gains as well as any income received by the investor from the stock (Mugambi & Okech, 2016). Stock returns can be used to predict output and investment since they are forward-looking variable

which outlines future discount rates and cash flow expectations. Stock returns serve as an index to investors or governments in making their investment decisions. Investors of different financial capacity are able to invest in stocks as long as they are able to get a return that is higher than their cost of capital (Wang, 2012).

The availability of adequate market information and the effectiveness and efficiency of stock in the allocation of shares and equities is determined by stock returns. Changes in stock prices create some form of uncertainty for the investors which influence the stocks' demand and supply (Taofik & Omosola, 2013). Shares and stock markets react to any prize-shaping information, relevant for future market development (Širucek, 2013). Firms with higher stock returns are more profitable and thus they generally contribute to economic growth (Aliyu, 2011). Therefore, stock markets returns' uncertainties is a fundamental aspect of the aggregate economy since unstable economic growth trends makes consumption and investment difficult (Erdugan, 2012).

Stock returns are mostly measured using the stock market indexing. The performance of a specific stock is shown by fluctuations in its stock price. Just like a rise in stock prices indicates positive stock performance while a decrease shows declining performance, a higher stock index marks a better performing market or sector, as compared to a lower stock index (Daferighe & Sunday, 2012). In Kenya, the NSE 20 share index is used in the calculation of stock returns since it acts as a benchmark for the measurement of the performance of the stock market.

1.1.3 Effect of Capital Structure on Stock Returns

Modigliani and Miller (1958) proposed that a 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 has no influence on the value of a firm. The tradeoff theory suggests that when trying to find an optimal capital structure, firms will trade off main benefits which is tax deductibility of interest and costs which is bankruptcy cost 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. According to pecking order theory, Myers and Majluf (1984) noted that internal finance is preferred 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.

Modigliani and Miller (1963) contended that the utilization of debt-financing fundamentally alters the market for shares as multiple providers of funds are brought on board and shareholders have to compete for a share of the company's earnings with the debt providers. Their assertion implied that the firm value is maximized when it employs debt. The fundamental change impacts the stock returns which are expected to be higher given that equity investors will demand a higher return with the introduction of debt to guard against the risk introduced by leverage.

Several studies have been carried out with different studies giving conflicting results on what influences the other between stock returns and capital structure. Welch (2004) found out that stock returns are the main drivers of debt ratios. Chen et al., (2014) arrived at similar results by concluding that firms respond to stock return volatility with more debt reduction than equity issuance. Conversely, Sebnem and Vuran (2012) in their study established that stock returns are affected by financial

structure among other factors. The assertion is consistent Tahmoorespour et al., (2015) who found out that stock returns are affected by capital structure although the effect varies depending on the industry. While the relationship is positive in some industries, it is negative in others.

1.1.4 Manufacturing and Allied Firms Listed at the Nairobi Securities Exchange

NSE was constituted 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 manufacturing companies registered at the NSE.

It is common with companies in the manufacturing and allied sector to have a more frequent and higher need of raising capital than those in the service sector like professional services. A more common method of raising finance in this sector is through debt or equity which is dominant in their capital structure. Manufacturing firms have a more frequent and higher need of raising capital, this has seen the overall credit to the sector increasing from KSh 237,422 million in 2015 to KSh 290,069 million in 2016 (Economic Survey, 2017). To increase their profitability,

manufacturing firms should efficiently manage their capital structure components in order to minimize costs and maximize profits in their operations.

The share prices have gone up since the beginning of 2016 which is attributable to chalked up price gains for five manufacturing stocks among the nine that are actively traded. The manufacturing segment has outperformed other segments like commercial and services, insurance, banking, energy and construction. Standard Chartered conducted a study and firms in the sector according to them, are experiencing lower input costs at a time when a lot of orders for products have been received and this is due to decrease in inflation and more stable interest rate (Mwaniki, 2016).

1.2 Research Problem

Capital structure plays an important role in firm's stock return provided it is utilized efficiently and in an effective manner at its optimal level. However, the question of what constitute an optimal capital structure remains unanswered and the most controversial issue in the finance circles (Kajola, 2010). There is no agreement on the nature of effects of capital structure on the profitability from both the theoretical and different empirical studies. The information asymmetry proposition of Myers & 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 utilize more debt finance in their capital structure in order to shield their profits from taxation.

The manufacturing sector needs a keen attention in order to make meaningful contribution to Kenya's economy. According to the 2016-2017 budget, Kenya has set

out to enhance the economic growth by double digits by the year 2030 and this is through prioritizing key industries in the manufacturing sector as the vehicles to deliver these goals (Wakiaga, 2016). Manufacturing firms have a more frequent and higher need of raising capital, this is due to the fact that the overall credit to the manufacturing sector increased from KSh 237,422 million in 2015 to KSh 290,069 million in 2016 (Economic Survey, 2017). Due to capital, intensive nature of this sector, they are required to determine their optimal capital mix in order to realize gains from their investments. The manufacturing sector performance was favorable in 2016 due to the good macroeconomic environment except for the cost of borrowing that somewhat curtailed the availability of cheap credit to fund the sector's activities. This call for a need to establishing an optimal structure of capital since it's crucial for growth and overall return of this sector.

Empirical evidence is largely inconsistent and quite varied on the impact of capital structure on stock returns. Saeedi and Mahmoodi (2011) did the study on the effects of capital structure on performance of firms in the Tehran Stock Exchange and concluded that capital structure has no effects on the performance of firms. Nirajini and Priya (2013) discovered a positive correlation linking capital structure and financial performance. Sebnem and Vuran (2012) affirmed this when they found a positive correlation between stock returns and financial structure. Akbarian (2013) explored the impact of leverage on firms' performance in Tehran stock exchange and found that there exist a negative relationship between leverage and free cash flow per share but the study also found a significant positive relationship with return of equity. Another study by Barakat (2014) examined the effect of financial leverage and profitability in Saudi industrial firms and established an insignificant inverse relationship between financial leverage and share value.

Locally, Maina and Ishnail (2014) found no weighty association between capital structure choice and financial performance of Kenyan listed firms. The conclusion is contrary to Njeri and Kagiri (2015) who found that capital structure and financial performance of listed commercial banks are positively correlated. Mwangi et al., (2014) found a statistically significant negative association between financial leverage and performance. Koech (2013) and Ogutu et al., (2015) affirmed this when they concluded that capital structure is inversely related to performance. Masereti (2014) sought to investigate the existence of a causal relationship between capital structure and stock returns. The researcher concluded that the two variables are correlated. Ndung'u (2014) found that increase in operating leverage increases the firm's stock returns.

The lack of consensus among the various scholars on the effect of capital structure on stock returns is reason enough to conduct further examination on the area of study. In addition, most of the local studies done have concentrated on the effect of capital structure on firm performance. More research needs to be done on the area of capital structure and stock returns. This paper will seek to identify how capital structure influence stock returns of manufacturing and allied firms listed at the NSE. It will attempt to give an explanation to the research question; what is the effect of capital structure on stock returns of manufacturing and allied firms listed at the NSE?

1.3 Objectives of the study

To determine the effect of capital structure on stock returns of manufacturing and allied firms listed at the Nairobi Securities Exchange.

1.4 Value of the study

This study's findings will be used 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 manufacturing 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

This chapter presents the theoretical framework applied in the study and reviews previous studies on capital structure and stock returns. It contains the theoretical review, determinants of stock returns, empirical review, the conceptual framework and a summary of the literature.

2.2 Theoretical framework

This presents review of the relevant theories that explains the relationship between capital structure and stock returns. The theoretical reviews covered are; Modigliani and Miller model, Pecking Order theory, Trade-off theory and the agency theory.

2.2.1 Modigliani and Miller Model

Modigliani and Miller (1958) contended that the capital structure of a company 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 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 spend 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, developed by Myers and Majluf (1984), there is no predefined optimal capital structure but instead asserts that, firms displays different preference for utilizing internal funds or retained earnings over external capital. It is one of the most significant theories of a 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 respect to financing sources to minimize its information asymmetry costs, first choosing retained earnings, then 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 assumed to know 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 since they are undervalued in the capital markets. The asymmetric information effect therefore favors use of debt over equity and shows management confidence that the newly identified investment opportunity is profitable and the current share price is underpriced (Myers & Majluf, 1984).

2.2.3 Trade-Off Theory

This theory was proposed by Myers (1984). The theory holds that, there exists an optimal capital structure for every firm, which can be determined by balancing the costs and benefits of equity. As a result, a firm decides on how much debt capital and how much equity capital to include in their capital structure by balancing on the costs and benefits of each source. Debt capital results to benefits such as tax shield though high debt levels in the capital structure can result to bankruptcy and agency expenses. Agency expenses results from divergence of interest among the different firm stakeholders and because of information asymmetry (Jensen & Meckling, 1976).

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 tax advantage of debt) 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 have high debt ratios while firms with more intangible assets should depend more on equity capital because they are subject to loss 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 who cannot manage his business on his/her own delegates the authority to an agent (Jensen & Meckling, 1976). The issue of agency arises immediately when the desires and the goals of 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 principle. Thus, the theory of agency is to help in solving the principle and the agent issues with an aim of ensuring a better relationship between them (Itiri, 2014). This concept is based on the notion that the interests of shareholders and the executives are not affiliated in a perfect away to enable them work for a common goal which is 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.

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 use the free cash flow to interest payment of the debt 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 Stock Returns

Stock market returns is a matter of great interest to the stock market investors, in that it directly affects the wealth they hold. Key factors that are believed to play a part in the overall performance of stock markets are as follows:

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 worth 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 stock return.

2.4.2 Market Sentiments

Mayo (2016) noted that market sentiment entails the sensibility of market contestants, independently as well as communally. This possibly is the annoying class since we know it is substantial disapprovingly, but we start to comprehend it. Market sentimentality is normally personal, unfair and fixed. For instance, it is possible to make a concrete verdict concerning a stock's forthcoming development predictions as well as the future might even authorize your forecasts, nonetheless temporarily the market may shortsightedly dwell on a single piece of newscast that keeps the stock theatrically high or low.

Market sentimentality is being discovered by the comparatively new arena of social money. It begins with the supposition that social money are actually not effectual

more time, and this inadequacy could be elucidated by thinking and other communal disciplines. The notion of applying communal science to economics was completely legalized when Daniel Kahneman, was awarded the Economics 2002 Nobel Memorial Prize. Numerous of the thoughts in interactive business approve noticeable doubts: that stakeholders tend to exaggerate data which emerge effortlessly to mind; that numerous stakeholders respond with superior pain to losses than with preference to equal gains; and that shareholders tend to carry on in an error (Lee, 2009).

2.4.3 Industry Performance

The profitability and success of the industry or sector in which the company operates has a significant part to play in influencing the company's stock price. Typically, stock prices for firms in the same sector will fluctuate in tandem. Investors usually evaluate a firm owing to its earnings per share (EPS), future earning prospect and revenue. The reason for this being that conditions of the market will mainly affect companies in the same industry in a similar way. Nevertheless, the firm's stock price may at times gain from bad news in its rival if the two firms are targeting the same market (Madura, 2008).

The market share gains and losses can lead to substantial effects on a company's stock performance, depending on the economic sector's conditions. Market share is primarily a sector's total sales percentage that the firm earns. Market share shifts have a greater effect on firm performance in cyclic industries with low growth. Corporation's securities tend to track with the market and with their industry peers or sector (Acheampong, Agalega & Shibu, 2014). According to Mayo (2016) the mixture of general sector and market movements compared to a firm's performance individually predicts most of a stock price changes.

2.4.4 Company News and Performance

The securities markets are affected profoundly by rumors and news. The news can affect the sentiments and prospect of the investors and performance of corporations as people construe news differently depending on their own cognitive power. The enterprise particular factors that may influence the share price include: change of management; earnings news releases, profits and future projected earnings; declaration of dividends; introduction of new products; obtaining a new large contract; accounting errors or scandals; employee layoffs; and expected takeover or merger (Alanyali, Moat & Preis, 2013).

Certain enterprises are exposed more to own-industry specific circumstances as opposed to the wide conditions of the economy thus investors monitor price movements of the industry's products, entry into the industry and industry sales forecasts. An improvement in dividends may signify the prospect that the company can certainly afford to pay more dividends. The declaration of less than anticipated incomes can lead to investors trimming their company's valuation of stock and flows. The diversities are often considered as an encouraging indicator about a company if the stripped assets isolated from the company's core business. This naturally leads to an enhanced stock demand and as a result increases stock prices (Mayo, 2016).

2.4.5 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 significant negative effect on stock market returns. 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.

2.4.6 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 every firm desires to maximize profitability by maintaining appropriate level of liquidity. However, magnifying profits at the expense of liquidity can 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 cash ratios, current ratios, quick ratios and the changes in the working capital of the firm (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).

2.5 Empirical Review

There are numerous empirical studies both locally and internationally to support the relationship between exchange rates and stock market returns, but these studies have produced mixed results.

2.5.1 Global Studies

Sebnem and Vuran (2012) investigated the factors affecting stock returns of firms quoted in Istanbul stock exchange. Using secondary yearly data on stocks of 64 manufacturing firms listed continuously on the stock exchange between 2003 and 2007, Dynamic Panel Data Analysis method was adopted to explain the determinants of firm's stocks returns. They deduced that stock returns are affected by firm's financial structure among other factors. Total debt measured the financial structure in this research to equity and short-term debt to total assets. However, the researchers did not explicitly show how the stock returns could be linked to the firm's financial structure given that there were 30 independent variables that they had sought to test whether they have any effect on stock returns of the selected firms.

Mohohlo (2013) probed the bearing of capital structure on the firm value of firms listed on Johannesburg Stock Exchange (JSE). The focus was on a sample of 65

nonfinancial firms listed on JSE 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 relationship 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.

Enekwe, Agu and Eziedo (2014) explored effect of financial leverage on financial performance of Nigeria pharmaceutical companies. 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 ratio and debt-equity 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 and interest coverage ratio had insignificant impact on profitability of the pharmaceutical industry in Nigeria

Idris and Bala (2015) explored firms' specific attributes and stock returns for listed Nigerian food and beverages firms. Their study adopted the correlation and ex-post facto research design. Using a sample of 9 firms out of 21 food and beverages firms and secondary data. The researchers analyzed the collected secondary data using ordinary least squares regression and multiple panel data regression analysis. They

concluded that firm's debt-to-equity financing and earnings per share positively and statistically impact on stock market returns.

2.5.2 Local Studies

Ndung'u (2014) explored the influence of financial structure on stock returns of firms listed on the Nairobi Securities Exchange. The target population, as well as sample for this study, was 50 firms listed on the main segment excluding banking and insurance companies, which the researcher cited regulation of the companies' capital regulation by central bank of Kenya and Insurance regulatory authority as the grounds for exclusion. The researcher adopted an empirical research design. Using secondary financial data relating to stock returns and the firm's capital structure for three years from 2011 to 2013. The researcher analyzed the data based on Pearson correlation analysis and multiple regression models and concluded that stock returns increase with increase in the companies leverage ratio. This research can be extended by analyzing the banking and insurance alongside the other firms to identify any peculiarity in the banking and insurance companies.

Maina and Ishnail (2014) examined the link between financial structure and the financial performance of all firms listed on the NSE. Using a causal research design and secondary data from financial statements 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 capital structure choice 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 listed on Nairobi Securities Exchange. 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 financial performance of listed commercial banks could be explained by the capital structure of the firm. 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.

Ogutu et al., (2015) investigated the weight of financial elements on the performance of commercial and services firms listed on Nairobi Securities Exchange. The study covered a ten year period from 2003 to 2013. The researchers utilized secondary data from nine commercial and services listed companies and adopted the descriptive research design in conducting the research. The data was subjected to panel multiple regression analysis and correlation analysis leading to a conclusion that increased financial leverage negatively affects the performance of commercial and services companies.

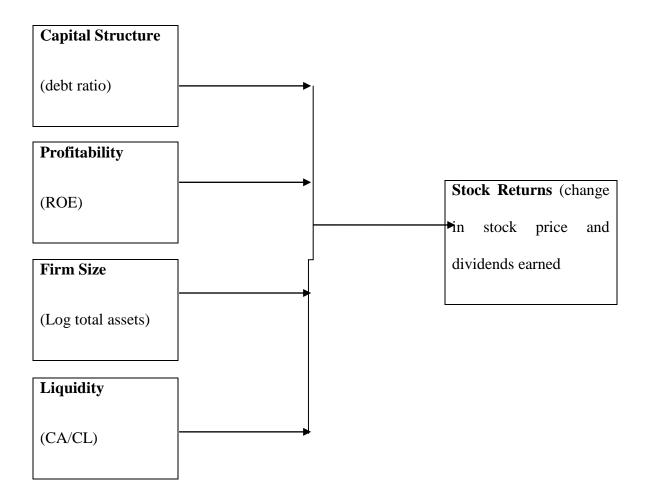
2.6 Conceptual Framework

Modigliani and Miller (1962) contended that the utilization of debt-financing fundamentally alters the market for shares as multiple providers of funds are brought on board and shareholders have to compete for a share of the company's earnings with the debt providers. Their assertion implied that the firm value is maximized

when it employs debt. The fundamental change impacts the stock returns which are expected to be higher given that equity investors will demand a higher return with the introduction of debt to guard against the risk introduced by leverage.

The factors characterized here are stock returns and capital structure. The independent variable is capital structure as measured by debt ratio. The control variables are profitability as ROE, firm size as measured by natural logarithm of total assets and liquidity as measured by the current ratio. Stock return will be measured by change in stock prices in addition to stock dividend if issued.

Figure 2.1: The Conceptual Model



Independent variables

Dependent variable

Source: Researcher (2017)

2.7 Summary of the Literature Review

Various theoretical frameworks have attempted to explain the concept of capital structure. Four theories have been discussed in this theoretical review. The theories are namely: Modigliani and miller model, pecking order theory, trade-off theory and the agency theory. Some of the key determinants of stock returns have also been discussed in this section. Several empirical studies have been conducted both

internationally and locally on capital structure and stock returns. The findings of these studies have also been discussed in this chapter.

The lack of consensus among the various scholars on the effect of capital structure on stock returns is reason enough 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 concluded that capital structure has no effects on the performance of firms. Nirajini and Priya (2013) discovered a positive correlation linking capital structure and financial performance. Maina and Ishnail (2014) found no weighty association between capital structure choice and financial performance of Kenyan listed firms. The conclusion is contrary to Njeri and Kagiri (2015) who found that capital structure and financial performance of listed commercial banks are positively correlated. This study will contribute to this debate by investigating the effect of capital structure on stock returns of manufacturing and allied firms listed at the NSE.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes methods of research applied to objectively establish the influence of capital structure on stock returns. It also shows the population of study, research design, data collection and analysis criteria.

3.2 Research Design

Research design is defined as a blue print of those procedures, which are adopted by a researcher for testing the relationship between dependent variables and independent variables (Khan, 2008). Descriptive cross sectional design was adopted for the study. A descriptive study involves a description of all the elements of the population. It allows estimates of a part of a population that has these attributes. Cross-sectional study methods are done once and they represent summary at a given timeframe (Cooper & Schindler, 2008).

3.3 Population

According to Burns and Burns (2008), population refers to the characters of interest upon which the study seeks to draw deductions. The population of the study comprised of all the 9 manufacturing and allied firms listed at the NSE from 1st January 2007 to 31st December 2016.

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 published

Annual financial reports of the listed firms in manufacturing and allied segment for the period contained from January 2007 to December 2016 and was captured in a data collection sheet. The end result was information detailing capital structure and stock returns. The specific data collected was firms' revenue, current liabilities, long term liabilities, current assets, equity, share prices and dividends distributed.

3.5 Data Analysis

The collected data was sorted, classified, coded and then tabulated for easy analysis. Collected data was analyzed using both the descriptive and the inferential 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 examined 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 determine the relationship between the dependent variable (Stock returns) and independent variables: capital structure, profitability, firm size and liquidity.

3.5.1 Analytical Model

Using the collected data, the researcher conducted a regression analysis to establish the extent of the relationship between capital structure and stock returns. The study applied the following regression model:

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

Where: Y = stock returns as measured by annual movement in market share prices and dividend issued

 β_0 =y intercept of the regression equation.

 β_1 , β_2 and β_3 = are the slope of the regression

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

 X_2 = Profitability as measured by ROE

 X_3 = Firm size, as given by; Natural logarithm of sales

 X_4 = Liquidity, as given by Current Assets divided by Current Liabilities

 ε =error term

3.5.2 Tests of Significance

To test the statistical significance the F- test and the t – test were used at 95% confidence level. The F statistic was utilized to establish a statistical significance of regression equation while the t statistic was used to test statistical significance of study coefficients.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND INTERPRETATION

4.1 Introduction

This chapter represents study's results and findings established on the objectives of research. This chapter focused on collected data analysis from CMA to establish impact of capital structure on stock returns of manufacturing and allied firms listed 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 as compared to 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

Source	chi2	Df	P
Heteroskedasticity	18.42	17	0.3629

Source: Research Findings (2017)

Shapiro-walk test and Kolmogorov-Smirnov test was used in normality test. The null hypothesis for the test was that the secondary data was not normal. If the p-value recorded was more than 0.05, the researcher would reject it. The test results are as shown in table 4.1.

Table 4.2: Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
Stock returns	Statistic	Df	Sig.	Statistic	Df	Sig.
Capital structure	.149	85	.300	.857	85	.853
Profitability	.156	85	.300	.906	85	.822
Firm Size	.172	85	.300	.869	85	.723
Liquidity	.165	85	.300	.880	85	.784
a. Lilliefors Significance Correction						

Source: Research Findings (2017)

Both Kolmogorov-Smirnova and Shapiro-Wilk tests recorded o-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.

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 4.2 below shows the descriptive statistics for the variables applied in the study. An analysis of all the variables was obtained using SPSS software for the period of ten years (2007 to 2016) on an annual basis. Stock returns had 0.439 as mean with a 1.978 standard deviation. Capital structure had a mean of 0.638 and a standard deviation of 0.634. Profitability resulted to a mean of 0.732 with a standard deviation

of 1.609. Firm size had a mean of 7.043 and a standard deviation of 1.164 while liquidity recorded a 2.168 mean with a standard deviation of 1.945.

Table 4.3: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std.
					Deviation
Stock returns	85	-1.00000	12.55254	.4396962	1.97830014
Capital structure	85	.12701	4.27983	.6388196	.63455155
Profitability	85	.06951	10.34579	.7324056	1.60881295
Size	85	3.94529	8.63151	7.0434975	1.16401885
Liquidity	85	.69881	10.08932	2.1684841	1.94522546
Valid N	0.5				
(listwise)	85				

Source: Research Findings (2017)

4.4 Correlation Analysis

Correlation analysis is used to establish if there exists a relationship between two variables which lies between (-) strong negative correlation and (+) perfect positive correlation. Pearson correlation was employed to analyze the level of association between the stock returns of manufacturing and allied firms listed at the NSE and the independent variables for this study (capital structure, profitability, size and liquidity).

The study found out that there was a positive and statistically significant correlation (r = .212, p = .000) between profitability and stock returns. The study also found out that there was a positive and significant correlation between liquidity and stock returns of

listed manufacturing and allied firms as evidenced by (r = .332, p = .000). Firm size and capital structure were found to have a weak negative but significant association with stock returns as evidenced by (r = -.148, p = .008) and (r = -.278, p = .000) respectively. 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 stock returns of listed manufacturing and allied firms at the NSE in regression analysis.

Table 4.4: Correlation Analysis

		Cori	elations			
		Stock	Profitability	Size	Liquidity	Capital
		returns				structure
Stock returns	Pearson Correlation	1	.212**	148**	.332**	278**
Stock returns	Correlation					
	Sig. (2-tailed)		.000	.008	.000	.000
	Pearson Correlation	.212**	1	.128*	.113*	087
		000		022	0.1.1	101
	Sig. (2-tailed)	.000		.022	.044	.121
	Pearson	148**	.128*	1	241**	.179**
Size	Correlation					
	Sig. (2-tailed)	.008	.022		.000	.001
	Pearson	.332**	.113*	241**	1	349**
Liquidity	Correlation					
	Sig. (2-tailed)	.000	.044	.000		.000

Capital structure	Pearson Correlation	278**	087	.179**	349**	1
	Sig. (2-tailed)	.000	.121	.001	.000	

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

Source: Research Findings (2017).

4.6 Regression Analysis

Stock returns of manufacturing and allied companies listed at the NSE was regressed against four predictor variables; capital structure, profitability, firm size and liquidity. The regression analysis was undertaken at 5% significance level. The study obtained the model summary statistics as shown in table 4.4 below.

Table 4.5: Model Summary

Model	R	R Square	Adjusted R	Adjusted R Std. Error of	
			Square	the Estimate	Watson
1	.418 ^a	.175	.164	.08062280	1.803

a. Predictors: (Constant), Profitability, Size, Liquidity, Capital structure

b. Dependent Variable: Stock returns

Source: Research Findings (2017).

R squared, being the coefficient of determination indicates the deviations in the response variable that is as a result of changes in the predictor variables. From the outcome in table 4.4 above, the value of R square was 0.175, a discovery that 17.5 percent of the deviations in stock returns of manufacturing and allied companies listed at the NSE are caused by changes in capital structure, liquidity, firm size and

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

profitability of the firms. Other variables not included in the model justify for 82.5 percent of the variations in stock returns of manufacturing and allied companies listed at the NSE. Also, the results revealed that there exists a strong relationship among the selected independent variables and the stock returns of manufacturing and allied companies listed at the NSE as shown by the correlation coefficient (R) equal to 0.418. A durbin-watson statistic of 1.803 indicated that the variable residuals were not serially correlated since the value was more than 1.5.

Table 4.6: Analysis of Variance

Model		Sum of	Df	Mean	F	Sig.
		Squares		Square		
	Regression	.433	4	.108	16.658	.000 ^b
1	Residual	2.048	80	.007		
	Total	2.481	84			

a. Dependent Variable: Stock returns

b. Predictors: (Constant), Capital structure, Size, Liquidity, Profitability

Source: Research findings (2017)

The significance value is 0.000 which is less than p=0.05. This implies that the model was statistically significant in predicting how capital structure, liquidity, firm size and profitability affects stock returns of manufacturing and allied 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 stock returns of manufacturing and allied companies listed at the NSE. The p-value under sig. column was used as an indicator of the significance of the relationship between the dependent and the independent

variables. At 95% confidence level, a p-value of less than 0.05 was interpreted as a measure of statistical significance. As such, a p-value above 0.05 indicates a statistically insignificant relationship between the dependent and the independent variables. The results are as shown in table 4.6.

Table 4.7: Model Coefficients

Mode	el	Unstand	lardized	Standardized	T	Sig.
		Coefficients		Coefficients		
		В	Std. Error	Beta		
	(Constant)	.080	.030		2.652	.008
	Capital	038	.013	166	-3.009	.003
1	structure					
	Profitability	.053	.015	.182	3.479	.001
	Size	006	.004	086	-1.593	.112
	Liquidity	.014	.003	.233	4.154	.000

Source: Research Findings (2017)

From the above results, it is evident that profitability and liquidity produced positive and statistically significant values for this study (high t-values (3.479 and 4.154), p < 0.05). Capital structure produced a negative but statistically significant values for this study (t= -3.009, p= 0.003). Firm size was found to be statistically insignificant for this study as evidenced by (t= -1.593, p= 0.112).

The following regression equation was estimated:

$$Y = 0.80 - 0.038X_1 + 0.053X_2 - 0.006X_3 + 0.014X_4$$

Where,

Y = Stock returns

 X_1 = Capital structure

 $X_2 = Profitability$

 $X_3 = Firm size$

 $X_4 = Liquidity$

On the estimated regression model above, the constant = 0.80 shows that if selected dependent variables (capital structure, profitability, firm size and liquidity) were rated zero, stock returns of manufacturing and allied companies listed at the NSE would be 0.80. A unit increase in profitability would lead to increase in stock returns of manufacturing and allied companies listed at the NSE by 0.053. A unit increase in liquidity would lead to an increase in stock returns of manufacturing and allied companies listed at the NSE by 0.014 while a unit increase in firm size and capital structure would lead to a decrease in stock returns of manufacturing and allied companies listed at the NSE by -0.006 and -0.038 respectively.

4.7 Discussion of Research Findings

The study sought to determine the effect of capital structure on stock returns of manufacturing and allied companies listed at the NSE. Capital structure as measured by debt ratio, profitability as measured by return on equity, liquidity as measured by current ratio and firm size as measured by natural logarithm of total assets were the independent variables while stock returns of manufacturing and allied companies listed at the NSE as measured by annual movement in market share prices and dividend issued 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 weak

positive correlation exists between profitability and stock returns of manufacturing and allied companies listed at the NSE. The relationship between liquidity and stock returns of manufacturing and allied companies listed at the NSE was found to be weak and positive. The study also showed that there exist a weak negative relationship between capital structure and stock returns of manufacturing and allied companies listed at the NSE while firm size was found to have a weak and insignificant negative relationship with stock returns of manufacturing and allied companies listed at the NSE.

The model summary revealed that the independent variables: capital structure, firm size, liquidity and profitability explains 17.5% of changes in the dependent variable as indicated by the value of R² which implies that there are other factors not included in this model that account for 82.5% of changes in stock returns of manufacturing and allied companies listed at the NSE. The model is fit at 95% level of confidence since the F-value is 16.658. 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 stock returns of manufacturing and allied companies listed at the NSE.

The findings of this study are in line with Ogutu et al., (2015) who investigated the weight of financial elements on the performance of commercial and services firms listed on Nairobi Securities Exchange. The study covered the ten year period from 2003 to 2013. The researchers utilized secondary data from nine commercial and services listed companies and adopted the descriptive research design in conducting the research. The data was subjected to panel multiple regression analysis and correlation analysis leading to a conclusion that increased financial leverage

negatively affects the performance of commercial and services companies.

This study differs with Ndung'u (2014) who explored the influence of financial structure on stock returns of firms listed on the Nairobi Stock Exchange. The target population, as well as sample for this study, was 50 firms listed on the main segment excluding banking and insurance companies, which the researcher cited regulation of the companies' capital regulation by central bank of Kenya and Insurance regulatory authority as the grounds for exclusion. The researcher adopted an empirical research design. Using secondary financial data relating to stock returns and the firm's capital structure for three years from 2011 to 2013, the researcher analyzed the data based on Pearson correlation analysis and multiple regression models and concluded that stock returns increase with increase in the companies leverage ratio.

This study also differs with Maina and Ishnail (2014) who examined the link between financial structure and the financial performance of all firms listed on the NSE. Using a causal research design and secondary data from financial statements 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 capital structure choice 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.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the findings of the previous chapter, conclusion, limitations encountered during the study. This chapter also elucidates the policy recommendations that policy makers can implement to achieve the expected stock returns of manufacturing and allied companies listed at the NSE. Lastly the chapter presents suggestions for further research which can be useful by future researchers.

5.2 Summary of Findings

The study sought to investigate the effect of capital structure on stock returns of manufacturing and allied companies listed at the NSE. The independent variables for the study were capital structure, profitability, firm size and liquidity. The study adopted a descriptive cross-sectional research design. Secondary data was obtained from the CMA and was analyzed using SPSS software version 21. The study used annual data for the 9 manufacturing and allied firms listed at the NSE covering a period of ten years from January 2007 to December 2016.

From the results of correlation analysis, a weak positive correlation exists between profitability and stock returns of manufacturing and allied companies listed at the NSE. The relationship between liquidity and stock returns of manufacturing and allied companies listed at the NSE was found to be weak and positive. The study also showed that there exist a weak negative relationship between capital structure and stock returns of manufacturing and allied companies listed at the NSE while firm size

was found to have a weak and insignificant negative relationship with stock returns of manufacturing and allied companies listed at the NSE.

The co-efficient of determination R-square value was 0.175 implying that the predictor variables selected for this study explains 17.5% of changes in the dependent variable. This means that there are other factors not included in this model that account for 82.5% of changes in stock returns of manufacturing and allied companies listed at the NSE. The model is fit at 95% level of confidence since the F-value is 16.658. 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 stock returns of manufacturing and allied companies listed at the NSE.

The regression results show that when all the independent variables selected for the study have zero value, stock returns of manufacturing and allied companies listed at the NSE would be 0.80. It is also noted that a unit increase in profitability would lead to increase in stock returns of manufacturing and allied companies listed at the NSE by 0.053. A unit increase in liquidity would lead to an increase in stock returns of manufacturing and allied companies listed at the NSE by 0.014 while a unit increase in firm size and capital structure would lead to a decrease in stock returns of manufacturing and allied companies listed at the NSE by -0.006 and -0.038 respectively.

5.3 Conclusion

From the study findings, the study concludes that stock returns of manufacturing and allied companies listed at the NSE is significantly affected by capital structure, profitability, firm size and liquidity of the companies. Capital structure was found to

have a negative but statistically significant relationship with stock returns of manufacturing and allied companies listed at the NSE and this means an increase in leverage leads to a decrease in stock returns. The study found that profitability had a positive and significant effect on stock returns of manufacturing and allied companies listed at the NSE. The study therefore concludes that profitability leads to an increase in stock returns of manufacturing and allied companies listed at the NSE. The study found that liquidity had a positive and significant effect on stock returns of manufacturing and allied companies listed at the NSE and therefore it is concluded that higher levels of liquidity leads to an increase in stock returns. Firm size was found to be statistically insignificant determinant of stock returns of manufacturing and allied companies listed at the NSE and therefore this study concludes that firm size does not significantly influence stock returns of manufacturing and allied companies listed at the NSE.

This study concludes that independent variables selected for this study capital structure, profitability, firm size and liquidity influence to a large extent stock returns of manufacturing and allied companies listed at the NSE. It is therefore sufficient to conclude that these variables significantly influence stock returns as shown by the p value in anova summary. The fact that the four independent variables explain 17.5% of changes in stock returns of manufacturing and allied companies listed at the NSE imply that the variables not included in the model explain 82.5% of changes in stock returns.

This finding concurs with Ogutu et al., (2015) who investigated the weight of financial elements on the performance of commercial and services firms listed on Nairobi Securities Exchange. The study covered the ten year period from 2003 to

2013. The researchers utilized secondary data from nine commercial and services companies listed companies and adopted the descriptive research design in conducting the research. The data was subjected to panel multiple regression analysis and correlation analysis leading to a conclusion that increased financial leverage negatively affects the performance of commercial and services companies.

5.4 Recommendations

Capital structure was found to have a significant negative effect on stock returns of manufacturing and allied companies listed at the NSE. The study recommends that when firms are setting their capital structure they should strike a balance between the tax savings benefit of debt and bankruptcy costs associated with borrowing. High levels of debt has been found to reduce stock returns of listed manufacturing and allied firms from the findings of this study and so firm managers should maintain debt in levels that do not impact negatively on stock returns to ensure the goal of maximizing shareholders' wealth is attained.

The study established that there was a positive influence of profitability on stock returns of manufacturing and allied companies listed at the NSE. This study recommends adequate measures should be put in place by managers of these firms to improve and grow their stock returns through profitability. Listed manufacturing and allied firms and all firms in general should work on increasing their profitable ventures that will lead to an increase in stock returns because this translates to improved shareholder wealth which is the main goal of a firm.

The study found out that a positive relationship exists between stock returns and liquidity position. This study recommends that a comprehensive assessment of listed manufacturing and allied firm's immediate liquidity position should be undertaken to

ensure the company is operating at sufficient levels of liquidity that will lead to improved stock returns of firms. This is because a firm's liquidity position is of high importance since it influences the firm's current operations.

5.5 Limitations of the Study

The scope of this research was for ten years 2007-2016. 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 2016. A longer study period is more reliable as it will take into account major happenings not accounted for in this study.

One of the limitations of the study is the quality of the data. It is difficult to conclude from this research whether the findings present the true facts about the situation. The data that has been used is only assumed to be accurate. The measures used may keep on varying from one year to another subject to prevailing condition. The study utilized secondary data, which had already been obtained and was in the public domain, unlike the primary data which is first-hand information. The study also considered selected determinants and not all the factors affecting stock returns of manufacturing and allied companies listed 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 stock returns of manufacturing and allied companies listed at the NSE and relied on secondary data. A research study where data collection relies on primary data i.e. in depth questionnaires and interviews covering all the 9 manufacturing and allied companies listed at the NSE is recommended so as to compliment this research.

The study was not exhaustive of the independent variables affecting stock returns of manufacturing and allied companies listed at the NSE and this study recommends that further studies be conducted to incorporate other variables like management efficiency, growth opportunities, corporate governance, industry practices, age of the firm, political stability and other macro-economic variables. Establishing the effect of each variable on stock returns of manufacturing and allied companies listed at the NSE will enable policy makers know what tool to use when maximizing shareholder's wealth.

The study concentrated on the last ten 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 be helpful to confirm or disapprove the findings of this study. The study limited itself by focusing on listed manufacturing and allied firms at the NSE. The recommendations of this study are that further studies be conducted on other non-listed manufacturing firms operating in Kenya. Finally, due to the shortcomings of regression models, other models such as the Vector Error Correction Model (VECM) can be used to explain the various relationships between the variables.

REFERENCES

- Abor, J. (2005). The effect of capital structure on profitability: An empirical analysis of listed firms in Ghana. *The Journal of Risk Finance*, 438-445.
- Akbarian, S. (2013). The investigation Effect of Financial Leverage and Environment Risk on Performance firms of Listed Companies in Tehran Stock Exchange. *Journal of Applied Science and Agriculture*, 8(3), 249-255
- Aliu, N. O. (2010). Effect of Capital Structure on the Performance of Quoted

 Manufacturing Firms in Nigeria. Unpublished Thesis. Ahmadu Bello

 University
- Aliyu, S. U. R. (2011). Does inflation has an impact on Stock Returns and Volatility.

 Evidence from Nigeria and Ghana. Bayero University, Kano-Nigeria
- Al-shubiri F. (2010). Analysis the Determinants of Market Stock Price Movements:

 An Empirical Study of Jordanian Commercial Banks, *International Journal of Business and Management*, 12(7), 214-221
- Amato, L. and Burson, T. (2007). The Effects of Firm Size on Profit Rates in the Financial Service, *Journal of Economic and Economic Research*, 8(1).61-81
- Baker, M. & Wurgler, J. (2002). Market timing and capital structure. *Journal of Finance*, 57(2).
- Banafa, A. S, Muturi, W & Ngugi, K (2015). The Impact of Leverage on Financial Performance of Listed Non-Financial Firm in Kenya. *International Journal of Finance and Accounting*, 4 (7), 1-20

- Barakat, A. (2014). The Impact of Financial Structure, Financial Leverage and Profitability on Industrial Companies Shares Value (Applied Study on a Sample of Saudi Industrial Companies). *Research Journal of Finance and Accounting*, 5(1), 55 66
- Burns, N. & Burns, S. (2008). *The Practice of Nursing Research: Conduct, Critique* and Utilization: 5th Edition: St Louis, Elsevier Saunders
- Calabrese, T. D. (2011). Testing Competing Capital Structure Theories of Nonprofit Organizations. *Public Budgeting & Finance*, 119-143
- Cooper, R., & Schindler, S. (2008). Business research methods. New York: Mc Grawhill
- Daferighe, E. & Sunday, C. S. (2012). The Impact of Inflation on Stock Market

 Performance in Nigeria. *American Journal of Social and Management*Sciences, 3 (2), 76-82
- Dehuan, J., & Jin, Z. (2008). Firm performance and stock returns: an empirical study of the top performing stock listed on shanghai stock exchange. *Academy of Accounting and Financial Studies Journal*, 24(2), 12-19
- Enekwe, C. I., Agu, C. I. & Eziedo, K. N. (2014). The Effect of Financial Leverage on Financial Performance: Evidence of Quoted Pharmaceutical Companies in Nigeria. *IOSR Journal of Economics and Finance*, 5(3), 17-25
- Erdugan, R. (2012). The Effect of Economic Factors on the Performance of the Australian Stock Market. Unpublished Dissertation. Victoria University, Melbourne

- Fama, E. F. (1981). Stock returns, real activity, inflation, and money. *The American Economic Review*, 71(4), 545-565.
- Fama, E. F. and French, K. R. (1998). Value versus Growth, The international Evidence, *Journal of Finance*, 53 (6) 1975
- Fisher, I. (1930). The theory of interest. New York, 43.
- Fisher, I. (2009). The Theory of Interest, Macmillan, New York, 323-352
- Gitman, L. (2003). Basic Managerial Finance. 2nd edition. New York: Harper & Row
- Harris, M. and Raviv, A. (1991). The theory of capital structure, *Journal of finance*, 46,297-355
- Idris, I., & Bala, H. (2015). Firms' Specific Characteristics and Stock Market Returns (Evidence from Listed Food and beverages Firms in Nigeria). *Research Journal of Finance and Accounting*, 6 (16), 188-200.
- Itiri, I. O. (2014). Impact of Financial Structure on the Performance of Quoted Firms in Nigeria. University of Nigeria
- Jensen M, and Meckling ,W. (1976), The Theory of the firm: managerial behavior , agency costs and ownership structure, *Journal of financial Economics* 3, 305-360
- Khan, J. A. (2008). Research Methodology. New Delhi. APH Publishing Corporation
- Koech, S. K. (2013). The effect of Capital Structure on Profitability of Financial Firms Listed at the Nairobi Stock Exchange (Unpublished masters' research project). University of Nairobi, Nairobi.

- Kraus, A. & Litzenberger, R. H. (1973). A State-Preference Model of Optimal Financial Leverage. *Journal of Finance*, 28(4), 911–922.
- Kuwornu, J. K. M. (2012). Effect of Macroeconomic Variables on the Ghanaian Stock Market Returns: A Co-integration Analysis. Agris on-line Papers in Economics and Informatics, 4 (2), 1-12
- Lee, J. (2012). Does Size Matter in Firm Performance? Evidence from US Public Firms. *Journal of the Economics of Business*, 16, 2, 189 –203.
- Maina, L., & Ishmail, M. (2014). Capital structure and financial performance in Kenya: Evidence from firms listed at the Nairobi Securities Exchange. International Journal of Social Sciences and Entrepreneurship, 1 (11), 209-223.
- Masereti, E. N. (2014). Capital Structure and Stock Returns: Evidence from the Nairobi Securities Exchange (Unpublished bachelor's research project).

 Strathmore University, Nairobi.
- Mishkin, F.S. & Eakins S. (2009). *Financial Markets and Institutions* (6thed.).

 Pearson Prentice Hall
- Modigliani, F. and Miller, M. H. (1958). The Cost of Capital, Corporate Finance and the Theory of Investment. *American Economic Review*, 48, 261-97.
- Mohohlo, N. R. (2013). Capital structure and its impact on firm value of JSE Securities Exchange listed companies (Unpublished masters research project). University of the Witwatersrand, Johannesburg.

- Mugambi, M. & Okech, T. C. (2016). Effect of Macroeconomic Variables on Stock

 Returns of Listed Commercial Banks in Kenya. *International Journal of Economics, Commerce and Management*, 4 (6), 390-418
- Muriuki A.M (2013). *The role of central bank rate on commercial banks profitability in Kenya*. Unpublished MBA Project, University of Nairobi.
- Mwangi, L. W. Muathe, S. K. and Kosimbei, G. (2014). Relationship between Capital Structure and Performance of Non-Financial Companies Listed in the Nairobi Securities Exchange, Kenya. *Global Journal of Contemporary Research in Accounting, Auditing and Business Ethics*, 1(2), 72-90.
- Mwaniki, C. (2016, February Fourth). Industrial stocks register slower fall as NSE opens year on a downward trend. p. Business Daily
- Myers, S. (1977). Determinants of Corporate Borrowing, *Journal of Financial Economics*, 5, 146-175
- Myers, S. C. and N. S. Majluf. (1984). Corporate Financing and Investment Decision when Firms have Information that Investors do not have. *Journal of Finance and Accounting*, 9(7), 36-69.
- Ndung'u, N. (2001). Liberalization of the foreign exchange market in Kenya and short term capital flows problem, AERC Research Paper No. 109, Nairobi: African Economic Research Consortium.
- Ndung'u, C. N. (2014). The Relationship between Capital Structure and Stock Returns of Firms Quoted in the Nairobi Securities Exchange (Unpublished master's research project). University of Nairobi, Nairobi.

- Njeri, M. K., & Kagiri, A. W. (2015). Effect of Capital Structure on Financial Performance of Banking Institutions Listed in Nairobi Securities Exchange.

 International Journal of Science and Research, 4(7), 924 930.
- NSE (2017). The organization website-www.nse.co.ke
- Nyamita, M. O. (2014). Factors Influencing Debt Financing and Its Effects on Financial Performance of State Corporations in Kenya. Doctorate Thesis.

 Durban University of Technology
- Ogutu, A. W., Riro, K., & Ofunya, A. (2015). Effect of Capital Attributes on the Performance of Commercial and Services Companies Listed in Nairobi Stock Exchange. *International Journal of Social Sciences Management and Entrepreneurship*, 2 (1), 313 326.
- Onaolapo A. A., and Kajola S.O. (2010). Capital structure and firm performance. Evidence from Nigeria. *European Journal of Economics, Finance and Administrative Science*, 25 70-82.
- Saeedi, A. & Mahmoodi, I. (2011). Capital Structure and Firm Performance: Evidence from Iranian Companies, *International Research Journal of Finance and Economics*, 70(7), 20-29
- Sebnem, E. R., & Vuran, B. (2012). Factors Affecting Stock Returns of Firms Quoted in ISE Market: A Dynamic Panel Data Approach. *International Journal of Business and Social Research*, 2(1), 109 122.
- Sireesha, P. B. (2013). Effect of Select Macro Economic Variables on Stock Returns in India. *International Journal of Marketing, Financial Services* & *Management Research*, 2 (6), 197-207

- Širucek, M. (2013). The Impact of the Money Supply on Stock Prices and Stock Bubbles. Mendel University
- Sloman, A.N & Kevin, J. (2007). *Economics for Business*. Prentice Hall, Financial Times.
- Tahmoorespour, R., Ali-Abbar, M., & Randjbaran, E. (2015). The Impact of Capital Structure on Stock Returns: International Evidence. *Hyperion Economic Journal*, 1(3), 56 78.
- Taofik, M. I. & Omosola, M. A. (2013). The Relationship between Stock Return and Inflation in Nigeria. *European Scientific Journal*, 9 (4), 146 157
- Uddin, G. (2009). Relationship between Interest Rate and Stock Price: Empirical Evidence from Developed and Developing Countries (2009). *International Journal of Business and Management* 4(3), 43-51
- Vieira, R. S. (2010). The Relationship between Liquidity and the Profitability: An Exploratory Study of Airline Companies between 2005 and 2008
- Wakiaga, P. (2016, June Monday). Manufacturing's big winners in Treasury's Sh2.3trn budget Nairobi. *European Scientific Journal*, 6 (2), 58 69
- Wang F. (2012). *Determinants of Chinese Stock Market Returns*. Unpublished MSc Thesis. Universiti Utara Malaysia
- Welch, I. (2004). Capital Structure and Stock Returns. *Journal of Political Economy*, 112 (1), 106 131