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Establishing target capital structure of commercial and services firms listed on Nairobi Securities Exchange

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ESTABLISHING TARGET CAPITAL STRUCTURE OF COMMERCIAL AND SERVICES FIRMS LISTED ON NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION AND APPROVAL

Declaration

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

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DEDICATION

This research thesis is dedicated to my beloved mum, Mrs Everlyne Oresi Omukuba, for her invaluable support and encouragement during my study period at Strathmore University Business School. Thanking you for believing in me.

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My utmost gratitude is to the Almighty God for this far He has brought me. Without His blessings and grace I surely would not have been able to achieve this milestone. I indeed acknowledge Him in everything that 1 have achieved.

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ABBREVIATIONS AND ACRONYMS

EBIT	Earnings before Interest and Tax
NDTS	Non Debt Tax Shield
NSE	Nairobi Securities Exchange
USA	United States of America

ABSTRACT

Target capital structure is a concept that has not been fully embraced by a majority of firms listed on NSE. This has attracted the attention of most researchers and finance scholars because of the contribution it has on the growth prospects and financial capabilities of a firm. Most of the firms that have experienced financial difficulties have cited wrong capital structure decision making as one of the main causation factors. This prompted the need to carry out a research, concentrating on a sector that has been worse hit by financial difficulties, to try and establish whether these firms do have target capital structures and in an event they do, whether they are actually operating at their target capital structures. The study also sought to find out after how long these firms take to adjust back to their target leverage and what actually determines this target leverage. This was a descriptive study targeting commercial and services firms in Kenya. Total population sampling was applied in this study since the population to the study was small. A structured questionnaire and a data collection sheet were used to collect both primary and secondary data respectively. Descriptive statistics and a partial adjustment model were used for data analysis. Regarding the first objective, the study found out that commercial and services firms exhibit presence of target capital structures, however none of them operated at their target leverage levels. The study found out that it takes approximately 2 years and 8 months for these firms to adjust back to the target capital structure in an event of a deviation and lastly, the study found out that non debt tax shield, tangibility, liquidity, business risk, profitability and firm size exhibit a positive significant relationship with target leverage. These findings should be of interest to regulators, commercial and services firms, potential scholars in this area in understanding the concept of target leverage among firms listed on NSE.

CHAPTER ONE : INTRODUCTION

1.0Background to the Study

Capital structure is the mixture of debt finance and equity finance in a firm. Capital structure is one of the most difficult subjects to understand (Ogebe & Alewi, 2013). The importance of capital structure decision making process cannot be under estimated (Gathogo & Dr. Ragui, 2014). Financing decisions are relevant when considering the value of a firm. Hence, therefore, this calls for a lot of care to be taken when coming up with capital structure decisions of any firm operating in any given industry. When making financing decisions, managers usually establish a target leverage that they feel and believe that the firm can operate at efficiently and therefore maximize shareholders' wealth. However in establishing this target leverage, a lot of considerations have to be made, key among this considerations being what actually determines this target leverage (Razali, 2013). It would be prudent to mention that the share performance of a given firm does also affect the financing decision of a company, since potential investors depend on, among other things, share performance of a firm's shares to make investment decisions (Kariuki & Guandaru, July 2014).

Establishing a target leverage level has for a long time been the focus in many academic and financial institutions that have had an interest in capital structure theory. Most researchers that have probed into this area have had an interest in establishing target leverage for the firms in the sector and industry they are researching in. Identifying a target leverage level of a given firm is of extreme importance than anyone would imagine(Wanja, 2016). Establishing target leverage would help most firms grow because wrong definition of parameters when it comes to capital structure decisions would mean that the firms are destined to fail. Capital structure is core to a firm's existence (Kariuki & Guandaru, July 2014). Various researches have been carried out in the Sub Sahara Africa on capital structure, factors affecting it and the impact financing decisions have on the performance of a company from a financial angle. Most of these researches have had conflicting findings and by extension, conflicting conclusions and recommendations. In a research carried out by Omollo (2016), she concluded that all the companies listed on NSE have target leverage levels to which managers consider each time they make a financing decision. In her research, Omollo concluded that a typical firm listed on NSE would adjust at a rate of 5.3% to target leverage in an event of deviation from it.

In his study on the key factors affecting capital structure of Malaysian firms operating under the real estate sector, Razali (2014) found out that the Malaysian property firms do have target debt leverage. However these property firms nevr operated at their target leverage, at least for the period under study. Being deviated from the target leverage, these property firms partially adjust to their target leverage gradually.This supports the dynamic trade off theory. A part from the study carried out by Omollo (2016), that concentrated on all the industries listed on NSE and that was also concerned about the adjustment speed in an event of deviation, most of the studies carried out on the capital structure theory on Kenyan firms have concentrated on what actual factors that influence capital structure of Kenya firms and not the target capital structure of these firms. In the recent past, most of the Kenyan firms in all sectors have experienced tremendous shocks on their stability ranging from financial and banking sector to manufacturing sectors without leaving out the commercial sector. At least for the last five years, the Kenyan market has seen some banks put under liquidation or put under recivership. Banks like Imperial Bank Ltd have ceased operations and firms like Nakumatt Holdings have gone under with others still struggling to remain a float. Most of these woes can be attributed to wrong financing decision making.

In as much as much the entire Kenyan market has been facing difficulties that cuts across all industries, the commercial and services firms happens to be worse hit seeing firms like Nakumatt and Uchumi which had a high market share struggling to remain stable. This has made it necessary for a research to be carried out to establish if there exists a target leverage for these commercial and services firms. The decision to exclude firms listed in financial sector, these being insurance companies together with banks, is based on the fact that these companies are subject to tight regulatory controls with regard to capital holding and liquidity requirements; which may distort the conclusions of the study. Furthermore, financial institutions have a tendency to apply off–balance sheet policy in disclosing their financial assets and liabilities; with the effect that not all the reported assets and liabilities actually belong to the firm (Alessandro, 2013).

1.1Problem Statement

According to Gathogo and Dr. Ragui (2014), the weight that capital structure decision making carries in the overall decision making of a company can not be under estimated. Jensen (1986) indicated that the financing of any firm is the pillar of its existence. Given the importance attached to target capital theory, many scholars have had an interest in carrying out researches in this area trying to establish whether firms have target capital structure levels at which they operate at efficiently. Whereas it is apparent from literature review that studies carried out elsewhere companies deviate from their target leverage, the evidence is however based on companies that operate in the developed markets like the USA and some parts of the Asian continent. The same findings can only be applied to Kenya if similar studies are carried out in Kenya using data from local firms. While studies carried out in Kenya e.g (Kamere, 2017) and (Omollo, 2016) consist relevant steps in getting more realistic findings regarding the determinanats of capital structures, they still are mumb about the adjustment speed towards target capital structure.

While many studies have been carried out on capital structure theories in Kenya, most of these studies have solely focused on the determinants of capital structure. In addition, none of these studies have concentrated on a specific sector and analysed capital structures of firms in that specific sector thouroughly. Most of these studies have focused on capital structure determinants of all companies listed on NSE. Furthermore, for those studies that have had an interest on analysing target capital structure of firms, have either still concentrated on all listed companies, or had no interest in establishing the adjustment speed. In the recent past, most firms in different sectors in Kenya, have experienced financial difficulties. However commercial and services firms have been worse hit, seeing most firms put under liquidation or having been driven away from the market entirely. In all this, poor finance decision making process has been cited as a course.

From the foregoing paragraph, it is evident that more studies ought to be carried out, concentrating on a sector that has been worse hit with financial difficulties to try and establish if these firms exhibit target capital structures. This research, does extent the empirical evidence on target leverage as it focuses more on target leverage of commercial and services firms and how adjustment back to target leverage in an event of deviation is done.

1.2Research Objectives

1.2.1 General Objective

The general aim of this study was to establish target capital structures, establish the speed of adjustment to target capital structure and investigating factors that determine target capital structures of commercial and services firms listed on NSE.

1.2.2 Specific Objectives

i. To establish target capital structure levels for commercial and services firms
ii. To establish the speed of adjustment to target capital structure
iii. To investigate the determinants of target capital structure

1.2.3 Research questions

i. What are the target capital structure levels of commercial and services firms?
ii. At what rate do commercial and services firms adjust to the target capital structure?
iii. What are the determinants of target capital structure?

1.3 Scope of the Study

The Kenyan commercial sector has faced liquidity issues for the better part of the last decade. Most firms have been either put into receivership or they have been liquidated due to bankruptcy issues. This has informed the scope of this study and therefore the population to the research comprised all the companies listed on Nairobi Securities Exchange under the commercial and services sector (12 firms as of 30th June 2018). The study entailed data for a five year period (1st July 2013 to 30th June 2018). The choice of this time period was because, the commercial and services industry in Kenya faced turbulence that shook the industry as a whole during this period, seeing firms like Kenya Airways, Uchumi Holdings and Nakumatt having to re-strategize so as to survive. The research utilized both secondary and primary data. The primary data to the research was collected by administering questionnaires while the secondary data was obtained from the published financial results of the commercial and services firms for the five year period ending 30th June 2018.

1.4 Significance of the Study

1.4 .1 Industry Regulators

The main responsibility of regulators is to ensure that that they regulate the industry so as to safe guard stake holders' interest including creditors and debt holders. Since poor capital structure decisions have been cited to be a casual factor to the fail of most firms, the findings and results of this study shall be relevant to the Industry regulators and policy makers in addressing issues related to capital requirements for commercial and service firms in Kenya.

1.4.2 Firm Managers and those charged with governance

Firm managers and those charged with governance have been entrusted with the companies they lead so as to ensure that these companies remain a float. Their decisions play a critical role in ensuring that these firms remain a going concern. This research will be relevant to managers of commercial and service firms in Kenya in bringing to their attention how relevant their decisions, especially their financing decisions have on the stability of the firms they have been entrusted with.

1.4.3 Academic researchers

This research does contribute to the already existing body of knowledge on target leverage. This notwithstanding, the research findings and conclusions of this research will form a point of reference for any future researches in this area.

CHAPTER TWO: REVIEW OF LITERATURE

2.0 Introduction

This chapter describes an analysis of literature on theories that informed the entire research. The first part of this chapter analyses the theories of capital structure and their relevance to this research. This first part of the chapter gives literature on two fundamental theories to this study namely: Static and Dynamic trade-off theory and target adjustment hypothesis. Furthermore, this first part of the chapter links these theories to the study and narrates how important these theories are to the study and how they will inform the entire study. The second part of the chapter has a brief description on the choice of the variables to the study and how these variables will enable the study achieves its desired objectives, both the general objective and the three specific objectives. Lastly this chapter then conceptualizes the variables to the research showing the relationship that exists between them, and how these variables were measured.

2.1 Theoretical Review

2.1.1 Static and Dynamic trade-off theory

Modigliani and Miller (1958), who are the pioneers of the trade-off theory did an analysis of financing decisions in a model which exhibited taxes. In this model the financing cost on debt capital commonly referred to as interest shields a firm's profits from taxes. Similarly, Bradley, Javrell, and Kim, (1984), in their work did come up with evidence of the static trade off theory. In their evidence, they show that companies do increase their leverage levels upto a point where the value of one unit of leverage does equal the interest on debt. This they indicated that include the costs associated with the likelihood of a company facing financial difficulties, commonly referred to as financial distress. Based on this evidence, companies strive, as one of their aims, to reach their target debt level, which is somehow a static point.

Welch, Bris, and Zhu, (2005), come up with additional evidence in their work, which indicates that tax shields utility does increase with profitability, increased tax rates and less depreciation charge expense. They came up with an estimate of the costs that are associated with financial difficulties to range between 2% and 20 percent of the firm's assets. On the other hand, Andrade & Kaplan, (2002) did a similar analysis and found out that the costs associated with financial distress can be estimated to be between 10 percent and 20 percent of a firm's assets. In addition to this, it can be deduced that the costs and any benefits that

associated with different debt levels are somehow caused by the conflict between providers of debt and equity holders of any company.

Jensen and Meckling, (1976) and Jensen, (1986) did similar analysis on capital structures and reached a conclusion that leverage has a sense of disciplining effect on a company's management team, since the servicing of a company's debt does reduce the cash flows of the company and therefore by extension does minimize the discretion of management and their scope of action. Morellec, Nikolov and Schürhoff, (2013), indicated that the costs resulting from a deviation from target leverage, are manifested in low return investments and investing in projects that have a high variance. The dynamic trade-off theory dictates that the expected leverage of a firm does adjust over time and is a function of various factors. Fischer, Heinkel, and Zechner,(1989), present evidence of some effects that are firm specific relating to a firm's leverage. This is as a result of the implication of transaction costs by introducing the same in the dynamic model. Leland and Toft, (1996), in their model, they introduce a dynamic model with some levels of endogenous bankruptcy. This helps them to present the target monetary value and maturity of a company's debt capital.

On the other hand, Parrino , Poteshman, Weisbach, and Ju, (2005), using the contingent claims method, introduce a dynamic capital structure model, in which they find evidence that a firm's actual leverage level supports the trade-off theory. Hennessy and Whited, (2007) did an analysis of a dynamic trade off model with endogenous choice of debt and investment in real terms. Strebulaev, (2015), indicates that debt ratio is mean-reverting and therefore an inverse relationship exists between leverage and profitability of a company. In addition to this, studies on the deviation from target leverage due to risk in the equity market value indicate that firms do a cost benefit analysis between adjustment costs and the decision to actually adjust (Leland & Toft, 1996). However, under certain circumstances, it can be concluded that, it could be a strategy so as to maximize a firm's value not to go back to the target debt ratio immediately. Hovakimian, Opler , & Titman, (2001), debate that in a market where transaction costs are evident, some evidence of a short term pecking order behaviour can be found in the data. This by extension does imply that small projects for any given company are usually short term financed with internal finances, probably retained earnings, and only large, capital intensive projects are financed externally.

Frank and Goyal, (2009), in their study of the U.S capital markets, noticed there exists a postive relationship between debt and firm size, inflation, tangibility and the industry median. Some shocks in profitabililty does result to decreased debt capital as compared to increased equity. Since most companies don't adjust to the target leverage immediately after a deviation due to the costs associated with adjustment, there exists a negative relationship between a company's profitability and leverage. Ang , Fatemi, & Tourani-Rad, (1997) did an investigation of Asian capital markets and did investigate finance structures and dividend policies of large Indonesian firms. They concluded that trade-off theory can not be independently verified. Therefore companies operate as if there exists a target leverage. Samarakoon, (1999) did an investigation of the capital structures of companies in Sri Lanka and found out that the financing trends of these firms did confrim the pecking order hypothesis. His analysis does support the correlations of a negative relationship that exists between leverage and a company's profitability and in addition, the relationship that exists between growth and leverage. He also indicated the relationship that exists between retained earnings and leverage.

Clark, Francis, & Hasan, (2008) in their study, found evidence to support the dynamic trade-off theory. Their analysis comprised of 26,395 firms located in forty different nations. They found out that these firms partially adjust toward target leverage. Based on their findings , they concluded that some factors that are specific to a given country and firm explain approximately 16% of the differences in adjustment speeds. However, these factors have different effects that differ significantly for developing and developed countries. They found out that rights of investors are associated with faster adjustment speeds in, whereas this is not the case in developed markets.

In summary, the trade-off theory as pioneered by Modigliani and Miller (1963) concludes that firms do increase their leverage until the utility received from leverage on per unit basis, does equal the finance charge of debt, commonly known as interest on debt. This explains that there exists a debt level where the company stops increasing their leverage and this level is determined by the costs incurred for one additional unit of leverage. This level is what Modigliani and Miller concludes to be the target debt level where the firm is maximizing the return on capital employed. Therefore since this study is concerned with the target debt level Kenyan commercial firms, trade-off theory was of much importance in informing the study how to compute or how to establish these target debt levels as advocated by Modigliani and Milller (1963).

2.1.2 Target adjustment hypothesis

When transaction costs are incorporated in the dynamic trade-off theory models, three views come up regarding the capital structure decisions; (1) what the adjustment speed is? (2) the magnitude of the transaction costs And lastly (3) what the firm's behaviour is as a response to capital structure shocks. All these issues and views that have prompted scholars to study them critically go beyond the classical trade-off theory (Frank & Goyal, 2009). Flannery & Rangan (2006), indicated that adjustment costs and all other costs associated with deviation from the expected leverage are directly related with the adjustment speed. Flannery & Rangan, (2006) further indicate that all the adjustments costs are transaction and firm value dependent. They found out that any costs associated with deviation are actually a factor of the likelihood of financial difficulties and the value of tax savings from debt capital. They also found out that firms varying cash flows do adjust quickly compared to firms with constant cash flows. They conclude that companies that require to change their capital structures do have to incur transaction costs and thus solely because of this, they end up adjusting their leverage ratios quickly.

Drobetz , Pensa , & Wanzenried (2007) carried out a study of the Swiss firms and they concluded that together with macroeconomic factors, some factors specific to the company, affect the adjustment speeds of firms to target debt level. The term spread of Swiss firms postulated a negative correlation to adjustment speed, while a firm's interest rates and growth do postulate positive relationship. Driffield, Mahambare and Pal (2005) report signs of company inertia during the financial crisis that happened in the year 1997 for Indonesian and Malaysian firms. In adjustment speed estimation, the current literature is still conflicting. Researchers who have estimated these speeds by virtue of substituting the expected leverage into the regression equation have concluded that the speed of adjustment is 34% (Flannery & Rangan, 2006), Lemmon, Roberts and Zender (2008), estimated a speed of 17% while Huang and Rittr (2009) did estimate this speed to be 15%. On the other hand Frank &Goyal, (2009), estimated a speed of 18% using the Least Squares regression analysis and 15% using the Blundell-Bond GMM-regressions.

Most of these researchers concluded that when estimating the adjustment speed, one has to consider the econometric model chosen, since this speed can be affected by the choice of the model. They also concluded that during their researches, some of the econometric challenges they did face were heterogeneous panel data that they actually used in estimating the speed of adjustment, variables that could not be observed, biasness in short term panel data,

autocorrelation and most importantly the unbalanced panel data (Zhao &Susmel 2008). All these rates of adjustment can be converted which usually is the case to express the time needed for the company to return back to the target leverage in an event of deviation. As found out by most researchers in this area, the average timeframe for this adjustment is 39% which translates to 1.77 years, on the lower side and approximately 7% which does translate to aproximately 9.9 years for the firm that takes the maximum time to adjust back to the target leverage.

The target adjustment hypothesis framework as pioneered by Frank and Goyal (2007), goes beyond the classical trade-off theory. In this hypothesis, it is established that the speed of adjustment is dependent on the costs associated with the deviation. All costs associated with a deviation from the target leverage are usually a factor of the likelihood of experiencing financial difficulties. The hypothesis was relevant to the study since it enabled the study achieve its specific objective of establishing the rate of readjustment back to the target leverage in the case of a deviation from the target capital by the Kenyan commercial firms.

2.2 Empirical Review

This section details previous researches that have been done on the topic by other researchers and the findings that emerged,(Anwar, 2011). Here, the key issues are the problem focused upon, the methodology adopted (design adopted, data used, underlying model, analytical method etc) and the key findings and conclusions. An evaluation of the appropriateness or otherwise of the methodology as well as the findings/conclusions should also be done, Anwar (2011). Studies have been carried out on the determinants of capital structure. For instance, Ferri and Jones, 1979) carried out a research on the determinants of capital structure using firm size, business risk, and industry risk as the key independent variables. Their main aim was to determine the these factors have on the leverage of a given company. Their study concluded that there exists a positive correlation between the independent variables and capital structure of a firm. They therefore concluded that firm size, operating leverage of a firm, industry type in which the company is operating in and business risk of the firm contribute to determining the capital structure of the firm. In addition to Ferri and Jones' study, a similar study was carried out by Carleton and Silberman (1977). Their study focused on the relationship between firm size, operating leverage and business risk to the capital structure of a firm. Their conclusions were similar to those of Ferri and Jones (1979). They too concluded that there exists a positive relationship between firm size, operating leverage and business risk to a firm's capital structure.

In a study carried out by Kunt (1994), using a sample of firms from 10 developing countries, he found out that industry, assets, and liquidity effects were more significantly related than tax, firm growth and firm size effects. Booth et al, used a similar sample of countries and the independent variables; profitability, business risk, size, tax rate, tangibility, and asset. The findings show that the independent variables have a significant impact on debt ratio in developing countries. Anwar (2011) studied a sample of 199 firms with an aim to investigate the determinants of capital across industry. The study used data from 2005 to 2009 and found that asset tangibility and profitability are the most prevalent determinants of finance structure in the energy, cement, and textile industry. Size does not affect the capital structure, while there is no correlation between leverage in cement and textile industry and growth, however, there was a positive correlation with leverage in the power industry. This confirms Drobertz and Fix (2003) statement that growing firms needs more funds to finance its activities and will therefore prefer to borrow. The findings from different sectors prove that determinants of capital structure vary from one industry to another. This is because business risk differs across industries.

Regarding target capital structure, Gothenburg et al (2000) carried out a research, their main problem concerning the practical matter of deciding an appropriate capital structure and the possibility of improvements. Their key objectives were to determine how the case companies decided their capital structures and are their capital structures targets or is there room for improvements. They studied three companies within the real estate industry. Their results indicated that these companies did not use any mathematical model when deciding their capital structures. However these companies do consider many other important factors, key among them being business and financial risk. Their research concluded that target capital structure exists. Razali (2014) carried out a similar research on target capital structures of the Malaysian real estate firms. Using a dynamic panel data model, Razali (2014), found out that the Malaysian property firms did practise the aspect of target leveraging. However, he found out that their targeting behaviour is influenced by factors like liquidity, non debt tax shield and profitability. He finally concluded based on his findings, Malaysian property firms had target capital structures.

Most researchers after establishing the target level of firms were interested in establishing the speed of adjustment in an event of deviation from the target capital structure. Razali (2014), in his work of establishing the target debt level, the determinants of the target capital structure and the speed of adjustment, noted that the real estate firms in Malaysia take

approximately 5.77 years to rebalance their capital structures back to the target capital structure in an event of deviation. Put in percentage wise this translates to approximately 17.32% which means that the property firms close by 17.32% the gap between the current and target debt ratios. A study carried out by Anyango (2011), regarding the adjustment speed of firms listed on Nairobi Securities Exchange established that the speed of adjustment of these firms was between -29 percent to 31percent. A number firms had positive values of adjustment speed when others were found to have negative values of readjustment. There was instantaneous adjustment since there were equal to 1 or greater than 1. The study finally concluded that based on the results and findings there was evidence that firms in Kenya exhibit targeting behaviour.

2.3 Research gap

The above empirical literature review shows that most scholars have had an interest in establishing the determinants of capital structure of various firms cutting across different industries. Most of the researchers concluded that determinants of capital structure like business risk, the size of the firm, profitability of these firms, liquidity, tangibility of the assets of these firms and non-debt shield play a pivotal role in deciding the capital structure of a firm. Razali (2014) was not only interested in investigating the determinants of capital structure but also establishing the target capital structure of property firms in Malaysia. He concluded that property firms in Malaysia do have target capital structures and in an event of deviation from the target capital structure the companies do readjust to their target.

Researches done in Kenya have made similar conclusions as those done in Malaysia and other countries around the globe. For instance Anyango (2011) carried out a research to investigate the determinants of capital structure of all listed companies on Nairobi Securities Exchange. She also established these firms have target leverage their speed of adjustment. Her conclusions were that all the firms on Nairobi Securities Exchange did have target capital structure and their managers portrayed adjustment behaviour. In her research, Anyango (2011) concentrated on all the industries listed on Nairobi securities Exchange. In a research carried out by Kariuki (2014), he concluded that manufacturing firms in Kenya had target capital structure and they struggled to readjust to it in an event of deviation. Based on his findings, the author concluded that growth opportunities negatively influence capital structure, while tangibility, profitability and firm size have a positive influence on capital structure. Limited researches carried out focused entirely on the commercial and services sector in Kenya. Most of them added to the already existing body of knowledge regarding the

various variables that affect the capital structure making decision of any firm. In as much as different researches have been carried out regarding capital structures of firms in Kenya and how this has an effect on the financial stability of firms, Kenya has still faced instances where firms go under. This financial turmoil has been experienced by commercial and services firms. This has raised a lot of questions on whether the researches carried out and their recommendations have been of any benefit. Since limited researches have concentrated on in this areas, and therefore their recommendations limited in away, this research sought to fill this gap and address some of the problems faced by Kenyan commercial firms, regarding their choice of leverage.

2.4 Independent Variables

NDTS, tangibility, liquidity, profitability, firm size and business risk are among the factors that researchers have recognized as having an effect on the financing decision making process of a company.

2.4.1 Non-debt tax shield (NDTS)

Modigliani and Miller (1958), in their study did lift the assumption of perfect market hypothesis and included taxes in their model to stucy capital structure. Based on this lifting, Modigliani and Miller(1958), found out that debt capital can actually yield gains when tax shields are considered. However, De Angelo and Masulis (1980), are of a different opinion. In theuir studies they discourage debt capital since, according to them, the presence of debt tax shield may encourage firms to take on more leverage which maty be detrimental to the survival of the company. They encourage firms to choose losses carry forward, credits on tax due to investment, depreciation and amortisation to gain more from taxation. According to them, a negatice relationship exists between non debt tax shield and leverage.

Based on the transaction cost theory, scholars found out that the transaction cost is actually determined by the limit rationality of the manager including other factors like opportunity and likelihood. The main aim of the firm is to maximize shareholders wealth as well as minimizing transaction costs. It is wise to note that NDTS does reduce the amount of finances required to be paid. In that regard, companies do appreciate the tax reduction brought about by the NDTS. In summary, NDTS could be more preferred by companies over debt tax shield (Beneish, 1999). Therefore it could be true to conclude that debt tax shield is subtituted for by the NDTS. The paper puts forth the following hypothesis to be verified:

Hypothesis 1: *Non debt tax shield is negatively related to the corporate debt levels, and Non debt tax shield has a certain substitution effect on the firm debt.*

NDTS shall be measured by the annual depreciation expense over total assets of a firm (De Angelo &Masulis, 1980).

2.4.2Profitability

When information is asymmetric, firms resort to internal sources of financing, mainly retained earnings compared to seeking external sources (Myers, Gerald , & Steward , A Programming Approach to Corporate, 1974). Most importantly it is noted that high profitable firms prefer retained earnings which is an internal source to issuing equity or debt in the capital markets. Therefore profitability and debt are negatively correlated.. However, somehow based on the trade-off theory, profitability and leverage could have a positive relationship as companies take advantage of debt tax shields. Profitability can be measured by earnings before interest and tax divided by total assets (Rajan & Zingales, 1995). Myers, Gerald , & Steward (1974), proposed an alternative hypothesis regarding the existence of correlation between leverage and profitability. Rajan and Zingales (1995), in their study found out that profitability was negatively related to leverage. This was consistence with the results and findings of Kester (1986) and Titman and Wessles (1988). On the other hand, noting that these findings are depended on the analysis which is carried out as an estimation of a reduced form, such results and findings of the studies carried out by the researcher masks the underlying demand and supply interaction that might actually be taking place. Albeit, one looking at it from the supply side, would think that more profitable firms would access debt capital easily, the demand for debt capital may actually be negatively related to profitability.

Stiglitz and Weiss (1981), in their study found out that in an event that debt capital providers can not differentiate between good and bad risks does actually prevent them from having to charge variable interest rates that are actually depended on risk. In this case, they are actually prompted to have an increase the interest rates, which in an unlikely event will induce the problem of adverse selection. Therefore this information asymmetry tends to force firms to actually rely and prefer retained earnings which is a form of internal finance source compared to external sources. Pecking Order Theory does advocate that firms prefer internal sources of finance more than external sources. This order starts with that source that is less risky to the one that has more risk. All the risk may arise due to asymmetric information that exists between insiders and public participants (Myers , Gerald , & Steward , 1974). Therefore more

profitable firms with alot of retained earnings, then would rely to internal financing sourcing as compared to exteranl sources (Murinde, Agung & Mullineux, 2004). Titman and Wessels (1988) and Barton, Hill and Srinivasan (1989) in their studies found out that high profitable firms did maintain lower leverage ratios since can actually generate funds for investment from their internal sources.

Regarding the relationship between profitability and capital structure of commercial and services firms in Kenya, this paper puts forth the following hypothesis to be verified:

Hypothesis 2: *Profitability is negatively related to a firm's capital structure*.

Profitability shall be measured by EBIT divided by total assets.

2.4.3Business risk

Business Risk which is the risk that the firm may go under and represented by financial distress and bankruptcy, is measured by the change in the EBIT of a firm on an annual basis. Firms with a high degree of business risk, risk going under by defaulting on their debt payments. Such firms are encouraged to refrain from debt capital. Based on this, a negative relationship exists between business risk and leverage. In deciding on the appropriate debt-equity ratio that companies should aim to achieve, analysts should consider the "psychology" of investors and its implication for the potential costs of financial distress relative to the firms' market value. Behavioural financial theorists have argued that firms will face declining ratios of expected direct costs of bankruptcy1 to their market values during normal trading conditions when the threat of liquidation is low (James, 1991; Berger, 1995a and b).A decreasing proportion of such potential bankruptcy-related costs will, in turn, imply a declining equity risk premium, with a corresponding reduction in the use of financial leverage by firms. Conversely, an increasing ratio of anticipated insolvency-related costs to company value is projected in periods when investors are very fearful about future market conditions. Key employees are more likely to abscond, suppliers more reluctant to extend credit as insolvency threatens. Common stockholders in particular will demand a commensurate addition in the risk premium, which suggests that the use of financial leverage by firms with good credit ratings will be high in abnormal business times. This paper therefore sought to test the below hypothesis:

Hypothesis 3:*The relationship between business risk and capital structure of a firm is negative.*

Business risk shall be measured by annual change in EBIT

2.4.4Tangibility

Based on the trade-off-theory, there exist a positive relationship between debt and tangibility. This is supported by the view that companies with high levels of tangible assets can actually use them as collaterals to acquire debt capital from the capital markets. This means that by virtue of the security, debt holders will be much more willing to advance debt capital to these firms.The higher the tangible assets that a firm has, the more their bargaining power is to negotiate for debt capital. However, Titman and Wessels(1988),argue that firms with few tangible assets, may think of increasing their leverage so as to limit managers from mismanagement of funds. Regarding the measurement, total net fixed assets divided by total assets of a firm is used as a measurement of tangibility of a firm (De Jong, Kabir & Nguyen, 2008). Tangibility is the ratio of total tangible assets, preferably fixed assets, divided by total assets of a firm. Charalambakis and Psychoyios (2012) in their studies found out that there exists a positive relationship between leverage and tangibility. In addition to this, Almeida and Campello (2007), indicate that having highly collateralized debt lowers the risk of agency costs between managers and shareholders, since it limits the amount of free cash flows for the company. In an event of liquidation, tangible assets reduces the costs associated with financial difficulties, since they can actually be converted to cash to sort out the company from liquidation. However, Morellec, Nikolov, & Schürhoff (2013), in their studies are of a different opinion. They indicate that there actually exists a negative relationship between leverage and tangibility, since more tangible assets means the firm is financially stable and does not require any debt capital.

The hypothesis in regard to tangibility that this paper sought to test is:

Hypothesis 4:*Tangible assets have a positive effect on the debt to total assets ratio*

Tangibility shall be measured by Net fixed assets divided by total assets

2.4.5Firm Size

Previous studies have found out that there exists a positive relationship between leverage and firm size. Warner (1977) and Ang et al. (1982) support this belief when they found out in their studies that direct bankruptcy costs does decrease when the value of the firm increases. This means considering the impact of bankruptcy costs in decision making process becomes irrelevant. Titman and Wessels (1988), argue that larger firms are more diversified and have higher bargaining power when it comes to accessing finances from the capital markets. They

also argue that these large firms do have a high probability of maximizing debt tax shield and hence maximizing the benefits brought about by debt capital.

Grinblatt and Titman (1998), argue that based on agency theory, the conflicts between owners and debt holders for large firms are not that much as compared to small firms. In addition to this information asymmetries are on the rise in small sized firms (Harris and Raviv, 1991). Based on most of these arguments, it has been concluded from previous researches that there exists a positive relationship between firm size and debt ratio of a firm. The information asymmetry in the capital markets will be a little bit less for the firms with large size as compared to the small sized firms. In addition to this some researchers have found out that the firm size does react negatively to debt. This is usually when smaller firms are more leaned towards debt since they might have limited access to equity market.

The following hypothesis is brought forth:

Hypothesis 4:*Firm size has a positive relationship with capital structure of a firm.*

This study will use the natural logarithm of total assets to represent firm size (Deesomsak et al.2009)

2.4.6Liquidity

Many studies in finance have studied liquidity. Stoll and Whaley (1983) in their study regarding liquidity, noted that share transaction costs should be considered when firm valuation is being done and they concluded that the higher costs for smaller firms would be explained by the fact that their stocks are relatively illiquid. Amihud and Mendelson (1986) in their model, transaction costs do raise the required rates of return for equity investors. Investment banking fees could be less for more liquid shares. The issuance costs should and must be taken into consideration when sourcing external finances and should actually be incorporated as a cost of financing. Frieder and Martell (2006), in their studies found out that higher liquidity is associated with lower leverage, meaning that liquidity and leverage have a negative relationship. In addition to this, Lipson and Mortal (2010) found out that more liquid firms have less debt in their capital structure. Firms with high liquid equity are actually inclined to raise more equity as compared to debt capital. The magnitude of the effect on liquidity on capital structure of firms seems to be significant. There exists a positive correlation between liquidity and leverage. This can be explained by the fact that a company

that is more liquid is attractive to debt holders and therefore investors are willing to lend money to the company at reduced required rates of return. (Myers & Majluf,1984).

The below hypothesis was tested:

Hypothesis 4:*Liquidity has a positive relationship to capital structure.*

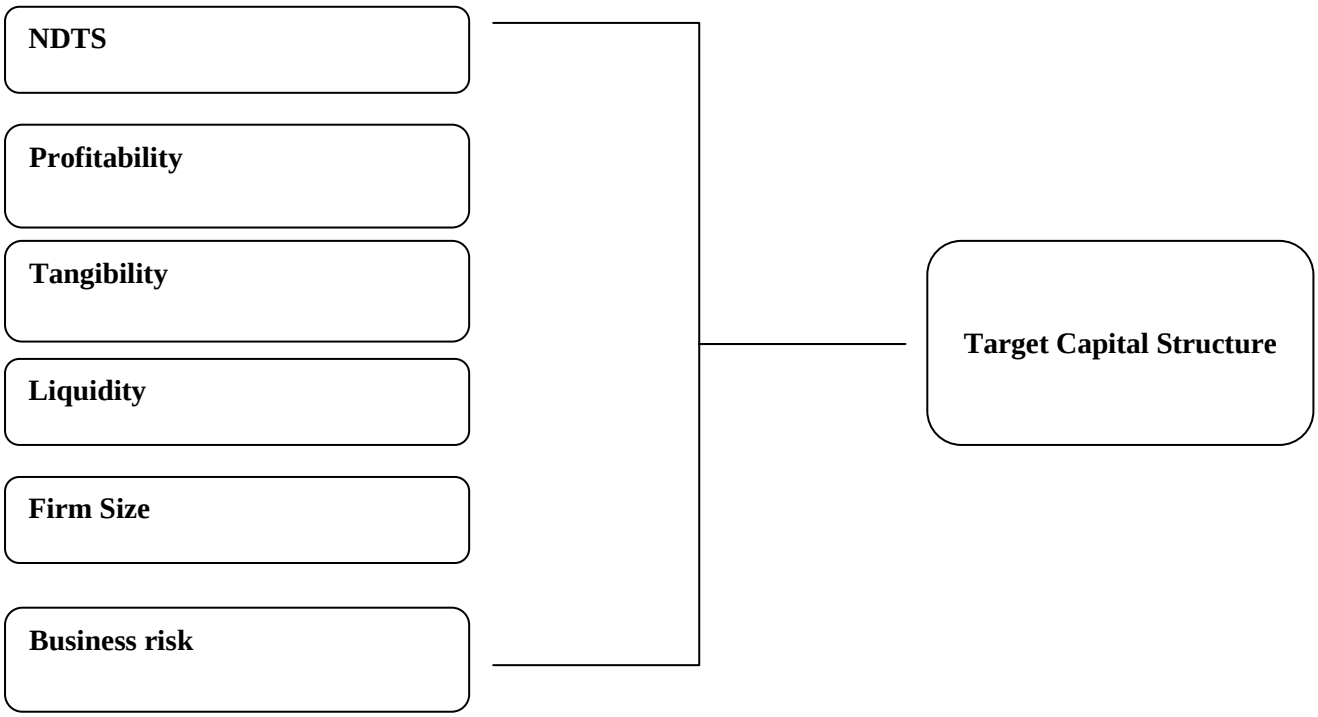
Current assets to current liabilities shall be used as a measure of liquidity in this study (Deesomsak et al, 2009)

2.5 Discussion of the Model

This study relies on a dynamic panel data model to analyse the collected data and come up with research findings regarding the impact adjustment costs to target leverage and tries to verify the existence or non existence of target leverage for the commercial and services firms in Kenya. This study assumes that the target leverage of a given firm is a function of a set of explanatory variables as employed in the partial adjustment model by (Drobetz , Pensa , & Wanzenried, 2007). Firms would immediately adjust completely to variations in the independent variables by varying their existing leverage ratios in a perfect market as per the perfect market hypothesis.

A detailed discussion of the model employed in this study is explained in chapter three under choice of the model: **Econometric Model.**

2.6Conceptualizing the relationship between variables



Independent Variables ***Dependent Variable***

Fig 2.1 Conceptual Framework (Author)

The conceptual framework above, depicts the relationship that exists between the independent variables, NDTS, tangibility, profitability, liquidity, firm size and business risk and the dependent variable, leverage.

2.7Operationalizing the variables

2.7.1 Leverage

Titman and Wessels (1988), define leverage as the ratio of total debt divided by total assets (TD/TA). They have different measurements of leverage including long term debt to total assets as well as total debt to total capital. Razali (2014), in his study of Malaysian firms, used all the above measures so as to assess the robustness of his findings.

This study intends to first check the reliability of each measure based on the R-Squared (R^2) of each measure. The measure with the highest R^2 shall be selected, since it shall be more reliable.

2.7.2 Non-debt tax shield

De Angelo and Masulis (1980) proposed that firms may have deductibles other than debt to reduce their corporate tax burden and therefore, debt and non-debt tax shields could as substitutes. Examples of such non debt tax shields include but not limited to depreciation, non taxable losses. For purposes of this study, depreciation was used as a representation of the non-debt tax shield. As proposed by De Angelo and Masulis (1980) depreciation tax shield shall be measured by the annual depreciation expense (capital allowances) to total assets.

2.7.3 Profitability

Profitability is composed of two words, namely, profit and ability. Put together, the term profitability means the ability of a given investment to earn a return from its use.Rajan and Zingales (1995) proposes earnings before interest and tax (EBIT) to total assets as a measure of profitability. The higher the ratio the more profitable the investment is. This study adopted Rajan and Zingales (1995) measure of profitability as the primary measure of the profitability variable.

2.7.4 Tangibility

Tangibility refers to assets with physical form. Titman and Wessels (1988) indicated that firms with few tangible tend to increase their debt levels so as monitor managers from mismanagement of funds. De Jong, Kabir and Nguyen (2008) suggested a measure of tangibility by getting net fixed assets over total assets. This study used this measure as the main measure of the tangibility ratio.

2.7.5 Liquidity

Different scholars have come up with different measures of liquidity. For instance Sarr and Tonny (2002) suggest several measures of liquidity. In their working paper, they suggest that liquidity measurement can be categorised into four measures: transaction cost measures, volume-based measures, price-based measures and market-impact measures. On the other hand a commonly used measure of liquidity as proposed by Deesomsak et al (2009) which this study adopted is the ratio of current assets to current liabilities.

2.7.6 Firm size

To the present date firm size remains a poorly defined concept. Where the use of size is required by theory empirical studies typically revert to some proxy or other such as the number of employees, Total Assets,Sales or Market Capitalisation. Conversely the concept of firm size has also been used to proxy for numerous theoretical constructs ranging from risk to liquidity or even political costs Ball and Foster (1992). As a result firm size has been

interpreted in many different ways allowing it to explain everything and thus nothing at the same time, Bujaki and Richardson (1997). Deesomsak et al (2009) suggests that firm size can be measured by the natural logarithm of total assets. The study used the natural logarithm of total assets to measure firm size.

2.7.7Business risk

Business risk as defined by Schwalbe (2005) is the anticipation that the firm's profits will not be constant. This means that there is likelihood that the firm might earn less profits or even make losses. As demonstrated by Deesomsak et al (2009), this risk can be measured by yearly change in the firm's earnings before interest and tax. This is the measure adopted in this study to measure business risk.

CHAPTER THREE : RESEARCH METHODOLOGY

3.0 Introduction

This segment analyses the research methodology that will be used in the study. This includes the research design, population and sampling, data collection methods, data analysis, research quality, and ethical considerations.

3.1Research Philosophy

Research Philosophy is considered as the first issue when designing a research. Research Philosophy refers to a system of assumptions and believes about the methodology in which data about phenomena should be gathered, used, and analysed. Saunders (2009) defines a research philosophy as a term relating to the development and nature of knowledge. A positivistic philosophy deals with units that can actually be observed and tested. This study adopted the positivistic philosophy. The reason for the choice of this philosophy is beacuse the researcher concerntrated on establishing the relationships and correlations that exist between variables using structured questionnaires and descriptive statistics in establishing realiability.

3.2Research Design

Kothari (2004) defined research design as a master plan that specifies the methods and procedures for collecting and analyzing the needed information. A research design is the structure, or the blueprint of research that guides the process of research from the formulation of the research questions and hypotheses to reporting the research findings (Wanjiru, 2015). The study used a descriptive design to determine the target capital structure of eleven listed companies under the commercial sector on the NSE. Mugenda and Mugenda (1999), indicates that descriptive method of research is used to describe the characteristics of the variables understudy. According to Thomas (2010), the descriptive method of research guides analysis and collection of data. The advantage of a descriptive approach to this study is that the data collection allows for gathering in-depth information that may be either quantitative or qualitative in nature. This allows for a multifaced approach to data collection and analysis. The key limitation of the descriptive approach is that the results are not repeatable and typically the study cannot be replicated. The study overcame this limitation by focusing only on commercial and services firms in Kenya. The research findings and recommendations are purely applicable to Kenyan commercial companies and cannot be applied to any other industry either in Kenya or across the region.

3.3 Population

According to Mofolo-Mbokane (2011), a population refers to the total number of elements the researcher will study to collect data and draw inference. The population of this study is consisted companies listed on NSE as commercial companies as at 30th June 2018. The reason for the study period is because most of these companies have a reporting period of financial year end of 30th June while some have a reporting period of 31st December. In that regard at the time of this research the most recent reporting period was 30th June 2018. This ensured that the most recent data is captured in the research. A list of these firms is shown in Appendix 3. The target population is the focal point within which the researcher concentrates on to generalize the results of a research (Odoh&Chinedum, 2014).

3.4 Sampling Frame and Sample size

A sampling frame is a source list from which a sample is drawn (Kothari, 2004). A sample refers to a part of the population being studied by the researcher. The sampling unit in this study was Kenya and the sampling frame was commercial and services firms in Kenya. Total sampling technique was used in this research since the size of the population was very small.

3.4 Data Collection Methods

Data collection methods refer to the techniques of collection of primary or secondary data relevant to the study. This study used both primary and secondary data. The primary data used in the research was administered through a questionnaire. The sample questionnaire is in appendix 4. The secondary data used in this research relates to the variables to the study both the dependent and the independent variables. The researcher utilized data of eleven listed firms from reports maintained at The Capital Markets Authority (CMA) and at the NSE for the five year period starting 1st July 2013 to 30th June 2018. The justification of this scope is because for the last five years, commercial and services firms in Kenya has faced tremendous turmoil which saw most firms both listed and unlisted operating in commercial and services sector put under liquidation or ceasing operations entirely.

The data was collected with the help of Data Collection Sheet as shown in Appendix 2. The research collected the published financial statements for the commercial and services firms for the period under study. These published financial statements consisted of the statement of financial position commonly known as the balance sheet and the income statement or statement of profit or loss. For the data relating to leverage the researcher collected information about earnings before interest and tax from the income statements of all firms. Regarding the non-debt tax shield variable, the researcher collected data relating to

depreciation charge expense for the entire period under study from the income statement and all tangible (fixed assets) figures from the balance sheet.

To assess the profitability of the firms, the researcher summarised the earnings before interest and tax from the income statement and this was divided by the total assets from the balance sheet. The researchers also collected data from the balance sheet relating to current assets and current liabilities and these data enabled the researcher assess the liquidity of these firms. The data relating to the leverage of the various companies under study will be collected from the published financial statements and summarized in the data collection sheet.

The study used four variations of leverage, as explained in chapter two to increase the reliability of the results. Data relating to these ratios will be collected from the published balance sheet of the firms under the study. Similarly all the data relating to the independent variables, that is, NDTS, profitability, tangibility, firm size, firm growth, firm business risk and liquidity shall be collected from the published financial results of these companies under study in their measures and ratios as stipulated in the data analysis section of this section.

In summary, all the secondary data to the study was collected from the published financial statements of the commercial and services firms listed on Nairobi securities exchange. The primary data to the study was collected through a questionnaire that was administered by way of drop and pick technique, which involved dropping the questionnaires to the respective companies and coming latter to collect them having been filled. The questionnaires were intended for the sole purpose of collecting primary data from those charged with governance and those in a position to make critical decisions regarding capital structure of firms.

All these data was summarized in the data collection sheet shown in appendix 2.

3.5 Data Analysis

The researcher, after collecting the required data, both secondary and primary, embarked on analysing the data so as to come up with findings and therefore make conclusions. This section is summarized in the sequence of the objectives in the following manner: the first subsection summarizes the measurement and definition of the variables to the study. This first subsection presents in a form of a table the summary of the variables and how they were measured. The second part or subsection goes ahead to do an analysis of these variables to analyse data relating to the first objective.

The third subsection on data analysis presents the econometric model that was used in this research, the generalized method of moments. This part summarises how the model was essential in helping the researcher achieve the intended general and specific objectives of the research.

The fourth subsection does an analysis of the second objective, the existence or none existence of target capital structure. This subsection presents a model that was used in the research to determine whether commercial and services firms have an target capital structure. This subsection relates purely on answering the second objective.

The final subsection of the data analysis, answers the last objective of the rate of adjustment. This subsection does an analysis on how to determine the rate of adjustment to the target capital structure in an event of deviation from it. This last subsection closes the discussion on data analysis regarding the objectives of the study.

3.5.2Econometric Model : Generalized Method of Moments (GMM)

The general objective of this study is to establish the existence of a target capital structure, the significance of the determinants of target capital structure and the speed of readjustment back to the target capital structure of the Kenyan commercial firms, in the event of a deviation from the target capital structure.

To meet its achieve this objective the study shall employ the Generalized Method of Moments (GMM)-First Difference (Arellano & Bond, 1991) as the econometric Model. By employing this model, the study will be able to determine the capital structure of the Kenyan commercial and services firms, determine how significantly does the independent variables influence the dependent variable (leverage) and determine the speed of adjustment to the target capital structure in an event of a deviation. One of the minimum requirements of the Generalized Methods of Moments (GMM) is to have three consecutive observations. The study shall meet this requirement since the study intends to have observations for five consecutive periods (Five year period, from 1st July 2013 to 30th June 2018). The study will use the E-views software to analyse the data.

3.5.2.1Target capital structure

The study presents a dynamic panel data model based on the Generalized Methods of Moments is able to ascertain the existence of a target capital structure (leverage) on commercial and services firms of Kenyan companies listed on the Nairobi Securities

Exchange. Using the partial adjustment model this study assumes that a set of explanatory variables influence the target leverage ratio for a firm as in Equation (1) below:

$$Y_{it}^{*} = F(Xit, Xi, Xt) \quad \text{.....(1)}$$

The observed leverage of firm *i*attime*t* (Y_{it}) should be equal to the target leverage, that is $Y_{it} = Y_{it}^{*}$ and this implies that $Y_{it} - Y_{it-1} = Y_{it}^{*} - Y_{it-1}$. The adjustments costs significantly impact the adjustment process and allow only for a partial adjustment, represented in Equation (2) below:

$$Y_{it} - Y_{it-1} = \delta_{it}(Y_{it}^{*} - Y_{it-1}) \quad \text{.....(2)}$$

Where,δ_{it}, is the speed of adjustment, it represents the convergence degree of Y_{it}, to its target value with the restriction that $I\delta_{it}I < 1$, which is a condition that $Y_{it} Y_{it}^{*}$ as time reaches infinity, $t \quad \infty$. The firm's behaviour is represented by the below Equation (3):

$$Y_{it}^{*} = \sum_{n=1}^{N} \beta k\, Xkit + \varepsilon it \quad \text{.....(3)}$$

We then combine equation (2) and (3), we derive:

$$Y_{it} = Y_{it-1} + \delta_{it}(Y_{it}^{*} - Y_{it-1}) \quad \text{.....(4)}$$

$$Y_{it} = Y_{it-1} + \delta_{it} Y_{it}^{*} - \delta_{it} Y_{it-1} \quad \text{.....(5)}$$

$$Y_{it} = (1-\delta_{it}) Y_{it-1} + \delta_{it}\left(\sum_{n=1}^{N} \beta k\, Xkit + \varepsilon it\right) \quad \text{.....(6)}$$

$$Y_{it}^{*} = (1-\delta_{it}) Y_{it-1} + \sum_{n=1}^{N} \delta_{it} \beta k\, Xkit + \delta_{it} \varepsilon it \quad \text{.....(7)}$$

To simplify, equation (7) can be written as:

$$Y_{it}^{*} = \lambda_0 Y_{it-1} + \sum_{n=1}^{N} \lambda\, k\, Xkit + \mu it \quad \text{.....(8)}$$

Equation (8) shows the dynamic capital structure model and is estimated using the GMM-First Difference.

3.5.2 .2Adjustment rate to target capital level.

To achieve the specific objective of establishing the rate of adjustment to the target capital structure in an event of deviation, the study will seek to establish the rebalancing rate of the capital structure by the Kenyan commercial and services firms. The summarized equation 8 above, will enable the study achieve this objective. From the equation (2) :

$$Y_{it} - Y_{it-1} = \delta_{it}(Y_{it}^{*} - Y_{it-1})$$

δ_{it}, is known as the speed of adjustment, which depicts the convergence of the observed leverage to its target level (Target capital structure). From the equation this rate presented as a decimal will be ($\delta_{it} = 1-\lambda_0$). This can then be converted into a percentage by multiplying by 100. Similarly this rate can be presented in years. This means that it takes on average "x" number of years for the capital structure of these firms to converge back to the target capital structure in an event of deviation from the target.

3.6Research Quality

For attaining reliable and authentic results, reliability and validity will be given the seriousness they deserve in this study. The research instruments and research design will be given serious consideration to ensure reliability and validity of data. Research quality must be done in a manner that ensures the study and methods used measures exactly what they are supposed to measure. Liaising with a supervisor is one way to ensure reliability and validity in this study.

3.7Ethical Considerations

This research study aims to ensure adherence to ethical codes and expectations for the participants and the research process. Ethical guidelines need the research process to follow and respect the existing universal guidelines by ensuring autonomy, objectivity, dignity to the participants, and unbiased decision making. The research process will adhere to ethical considerations to ensure quality of research and findings.

CHAPTER FOUR : PRESENTATION OF RESEARCH FINDINGS

4.0 Introduction

This chapter presents the analysis of the data collected and the findings of the study. In particular, section 4.1 covers the sample representation to this research and discusses about the population to the research. Section 4.2 presents a discussion on the primary data collected and the response rate, section 4.3 presents descriptive statistics of the variables to the study, and then finally section 4.4 presents a summary of the interpretation of the findings.

4.1 Sample Representation

4.1.1 Research Population

The population to this research consisted of 12 firms listed on NSE under the Commercial industry as at 30th June 2018. Since the study intended to carry out a research specific to given sector- commercial and services firms, it was prudent to concentrate on the population under this industry as a whole.

4.1.2 Research Sample

The population to the research was too small to carry out sampling, therefore the entire population was considered for this research. However a number of firms were eliminated from the research since they did not have adequate data that was relevant to this research and therefore including them would have resulted to biased results. Considering this, 4 firms were excluded from this research and that left the researcher with only 8 firms to carry out research on out of the possible 12 firms. However, the exclusion of the 4 firms does not render the findings and conclusions of the research irrelevant and therefore the results, findings and conclusions can still be extrapolated to represent the entire population. A total of 40 observations were made regarding both the independent and dependent variables.

4.2 Response Rate

The researcher incorporated primary data in the research so as to achieve the research objectives.The questionnaires were administered to finance managers and head of finance departments of all the 12 under the study. The questionnaires were intended to be filled by the top management, especially those involved in the finance decision making process. They were targeted to at least the Chief executive Officer, the Chief finance Officer and Finance managers and financial controllers. The response rate was 76% meaning out of all the 36 questionnaires administered the researcher managed to get 26 responses only. A response rate

of 76% was regarded sufficient (JackFincham 2008), to enable the researcher analyse the data.

4.3 Descriptive Statistics of Variables

The study used descriptive statistics to analyze and simplify the interpretation of the data. Through the descriptive statistics the study presents the measures of central tendency and deviations from the mean, the measure of spread which will enable us to know how the data is distributed and also the skewness and kurtosis of the data collected. The table below summarises descriptive statistics of the data collected.

Table 4.1: Descriptive statistics

	NDTS (AD/TA)	TANGIBILITY (NFA/TA)	PROFITABILITY(EBIT/TA)	RISK (Change in EBIT)	FIRM SIZE(ln TA)	LIQUIDITY (CA/CL)	TD/TA	TD/(TD+TE)	LTD/TA	LTD/(TD+TE)
Mean	0.04	0.51	-0.01	-1.43	21.56	8.64	0.36	0.57	0.19	0.29
Standard Error	0.01	0.04	0.05	0.74	0.34	7.32	0.04	0.04	0.03	0.04
Median	0.04	0.48	0.03	-0.25	21.69	1.21	0.30	0.59	0.13	0.23
Standard Deviation	0.03	0.24	0.29	4.56	2.11	45.12	0.23	0.27	0.20	0.27
Sample Variance	0.00	0.06	0.08	20.83	4.44	2035.62	0.05	0.07	0.04	0.08
Kurtosis	3.71	-1.07	10.05	4.65	0.28	37.97	-0.19	-0.79	0.60	-0.11
Skewness	1.76	0.43	0.01	-1.79	0.55	6.16	0.63	-0.17	1.13	0.82
Range	0.15	0.81	2.21	24.14	8.33	279.40	0.91	1.00	0.73	0.99
Minimum	0.01	0.19	-1.10	-17.31	17.62	0.00	0.00	0.00	0.00	0.00
Maximum	0.16	1.00	1.11	6.82	25.96	279.40	0.91	1.00	0.73	0.99
Sum	1.68	19.46	-0.22	-54.26	819.30	328.22	13.54	21.68	7.20	10.96
Count	40	40	40	40	40	40	40	40	40	40

In table 4.1, taking a closer look on the mean under Total Debt to Total Assets (TD/TA), which is 0.36 and translates to 36%.This means that at any given point in time the firm's debt level will be on average 36% of the firm's total assets (Noncurrent assets plus current assets). From the table, checking the mean figure under the column "TD/(TD+TE)" which is 0.57 and translates to 57% it is evident that firms listed on Nairobi Securities Exchange under commercial and services firms have on average 57% debt level. This means that the companies maintain on average 57% debt and 43% equity over one year period. The mean on the last two columns show 0.19 and 0.29. This translates to 19% and 29% respectively. Interpreted, this means that the component of debt that is long term (with a maturity of more than one year) is 19% of the total assets and 29% of total capital respectively.On the second

column data relating to Non debt tax shield, the study shows that commercial and services firms save up to only 4% on average in depreciation as a tax shield.However the companies hold more of tangible assets (Noncurrent assets), based on the mean value under the column "tangibility" showing a mean of 0.51 which equates to 51% of the total assets.

4.4 Research findings

4.4.1 Investigating determinants of target capital structure

The first objective of this research was to investigate the determinants of target capital structure. The study sort to investigate how the independent variables affect the target capital structure of Kenyan commercial firms. On computing the R-squared of all the four models the first model emerged with the highest R-squared and therefore the model total debt ratio was selected for this research.

The following table shows a summary of total debt ratio for the sample companies.

Table 4.2 Individual firm's debt ratio (Total Debt / Total Assets)(*Yit) (Commercial and services firms)*

	Firm	2013	2014	2015	2016	2017	Average
1	Company (A)	0.49	0.58	0.79	0.86	0.91	0.73
2	Company (B)	0.32	0.43	0.52	0.57	0.56	0.48
3	Company (C)	0.13	0.24	0.42	0.53	0.68	0.40
4	Company (D)	0.25	0.25	0.38	0.57	0.53	0.40
5	Company (E)	0.16	0.13	0.32	0.51	-	0.22
6	Company (F)	0.18	0.18	0.17	0.29	0.22	0.21
7	Company (G)	-	0.08	0.23	0.19	0.37	0.18
8	Company (H)	-	-	0.08	0.27	0.17	0.10

The table above shows that the total debt ratio of the firms listed on the Nairobi Securities Exchange for the period Jan 2013 to June 2018 ranged between 10% to 73% on average. The table demonstrates that Company (A) is the lead with the highest total debt ratio of 73% as the average.

The six capital structure determinants used in the research were; non debt tax shield, profitability, tangibility, risk, liquidity and firm size. The study sort to know whether these determinants have a significant effect on the capital structure of a firm and the regression results were as follows;

Table 4.3 Capital structure determinants

VARIABLES	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	- 0.221	0.407	-0.542	0.591	-1.051	0.610	-1.051	0.610
NDTS	0.815	1.504	0.542	0.592	-2.251	3.882	-2.251	3.882
Tangibility	0.355	0.291	1.219	0.232	-0.239	0.948	-0.239	0.948
Profitability	- 0.091	0.152	-0.597	0.555	-0.400	0.219	-0.400	0.219
Risk	0.015	0.009	1.740	0.092	-0.003	0.033	-0.003	0.033
Firm size	0.018	0.016	1.098	0.280	-0.015	0.050	-0.015	0.050
Liquidity	0.005	0.074	0.063	0.950	-0.147	0.156	-0.147	0.156

From table 4.3 above, checking on the P values column, all the P values are greater than 0.05 with the P-Value related with liquidity being the highest with 0.950 and the P-value related with risk being the lowest at 0.092. Since all the P-values related with each determinant of capital structure are more than the cut-off of 0.05, we fail to reject the null hypothesis discussed earlier on in chapter 2.

When asked on how significant are the six determinants of target structure are in their financing decision making process, all the respondents responded in affirmative indicating that these variables are not only relevant but also significant consideration to make when making a financing decision.

In conclusion, regarding the determinants of target capital structure, it can be concluded that non-debt tax shield, liquidity, profitability, business risk, tangibility and firm size affect target debt levels.

4.4.2 Establishing target leverage levels

The second objective of this research was to establish target leverage levels for Kenyan commercial companies. The study aimed at investigating various capital structures of commercial and services firms in Kenya and determining whether target capital structure exists.

To estimate the target debt ratios the following model as explained in chapter three was used;

$Y_{it}^{*} = F\ (Xit, Xi, Xt)$.....(1)

The model assumes that the target debt ratio of a given firm is a function of a set of explanatory variables that account for the adjustment costs that are associated with the deviation from the target debt ratio. These explanatory variables have been captured in the study to those that determine the capital structure and by extension they also determine the target debt ratio. These explanatory variables are non-depreciation tax shield, profitability, liquidity, risk, tangibility and firm size.

The regression equation used to estimate the target debt ratio was of the form $Y_{it}^{*} = F\ (Xit, Xi, Xt)$, which indicates that target debt ratio Y_{it}^{*}, is a function of firm specific characteristics. The firm specific characteristics used in the regression analysis are; non debt tax shield, tangibility, risk, firm size, liquidity and profitability as explained in chapter two.

Variable Coefficients

Table 4.4 presents an analysis of the variable coefficients used in the estimation of target capital structure. Mean values have also been shown.

Table 4.4 Variable Coefficients

Company	Intercept	NDTS	Tangibility	Profitability	Risk	Firm Size	Liquidity
Company (A)	0.048	0.658	-0.049	-0.413	0.251	0.046	0.142
Company (B)	0.325	-0.158	-2.25	0.251	0.157	-0.021	-0.258
Company (C)	0.561	0.214	0.125	0.312	0.215	0.612	0.512
Company (D)	0.256	0.215	0.341	0.421	0.514	-0.152	0.523
Company (E)	2.261	0.314	0.111	0.125	0.014	0.215	0.147
Company (F)	-4.264	0.756	1.243	-0.339	-0.253	0.686	0.325
Company (G)	0.452	-0.251	-1.253	0.125	0.152	-0.256	0.315
Company (H)	6.251	0.245	-0.255	0.215	-0.125	0.141	0.155
Mean Values		0.249	-0.248	0.087	0.115	0.158	0.233

From the table above, the mean value of the industry average for tangibility is negative (-0.248). It was established that out of the total eight companies sampled, four had a tangibility coefficient of less than zero. This represented 50% of the total companies sampled. The negative impact of tangibility to leverage opens up a debate on features of borrowing behaviour of Kenyan commercial companies. This might confirm the theory that firms with high levels of tangible assets desist from borrowing.

The mean value for non-debt tax shield shows a positive relationship between non-debt tax shield and leverage, (+0.249). This means that non debt tax shield is positively related with the leverage of Kenyan commercial companies. Similarly, the average industry mean value for profitability is positive (+0.087), albeit, lowest from the other positive coefficients. This would mean that the more profitable a company is the more debt the company tends to have since they can attract more investors and lenders are willing to lend to a profitability company because of the growth prospects.

On the other hand, the risk coefficient also postulated a positive relationship between risk and leverage of +0.115. This is consistent with other studies carried out. DeAngelo and Masulis

(1980), for instance indicated that the more debt or leverage a company takes the more risky the company becomes. Therefore the risk of a company is positively related to the companies debt structure. Firm size and liquidity also had positive coefficients of 0.158 and 0.233 respectively. This meant that both firm size and liquidity are positively related to leverage. This can be explained by the fact that the larger the firm size, the easier it is for the firm to absorb more risk that comes with debt financing, Carleton and Silberman (1977). Additionally, the more liquid a firm is the easier it is to raise debt capital because of the confidence debt holders have in the company.

Using the model (Yit^*)to represent the target debt ratio and using the regression function Yit* = F (Xit, Xi, Xt), which indicates that target debt ratio Yit*, is a function of firm specific characteristics, target debt level was estimated.

Results of which are presented in the table below.

Table 4.5 Estimated target capital structure

Company	2014	2015	2016	2017	Average
Company (A)	0.58	0.62	0.72	0.81	0.68
Company (B)	0.29	0.83	0.1	0.43	0.41
Company (C)	0.22	0.43	0.54	0.38	0.39
Company (D)	0.63	0.7	0.47	0.68	0.62
Company (E)	0.11	0.12	0.43	0.16	0.2
Company (F)	0.24	0.31	0.27	0.18	0.25
Company (G)	0.43	0.56	0.15	0.74	0.47
Company (H)	0.55	0.33	0.38	0.26	0.38

From table 4.5 above, it is shown that commercial and services firms in Kenya had target debt ratios that ranged from as low as 20% (Company E) to as high as 68% (Company A).

Table 4.6 Comparison between current and target leverage.

Company	Current Leverage (Yit)	Target Leverage (Yit*)	Deviation (Yit-Yit*)
Company (A)	0.73	0.68	0.05
Company (B)	0.48	0.41	0.07
Company (C)	0.40	0.39	0.01
Company (D)	0.40	0.62	(0.22)
Company (E)	0.22	0.20	0.02
Company (F)	0.21	0.25	(0.04)
Company (G)	0.18	0.47	(0.29)
Company (H)	0.10	0.38	(0.28)

From the above table, its shown that none of the sampled firms under the commercial and services firms in Kenya was operating at their target debt level as at the date of this study. The current debt levels and the target debt levels of all the firms differed. However checking on the deviation, some firms portrayed a large deviation, while some portrayed low deviations. For instance company C portrayed the lowest deviation of 1% meaning that the firm is almost operating at its target debt level compared to company H which had a large deviation from the target debt level of 28%.

From the above table the deviation is not so much significant.

When asked on whether the target debt levels exists in practice and whether their firms have target debt ratios, 22 of the total respondents responded to the affirmative while only 4 were not sure on whether actually target debt level exists in practice and particularly for their respective companies. This translated to 84.62% and 15.38% respectively.

In conclusion, from the research findings, it is evident that commercial and services firms listed on NSE do have target leverage levels. However, all the firms are currently not operating at their target debt level and therefore there is a deviation from their target leverage levels, which necessitates adjustment back to the target debt level.

4.4.3 Establishing the speed of adjustment to target capital structure

To establish the speed of adjustment to the firms target capital structure, the following model was used;

$$Y_{it} - Y_{it-1} = \delta_{it}(Y_{it}^{*} - Y_{it-1})$$

δ_{it}, is known as the speed of adjustment, which depicts the convergence of the observed leverage to its target capital structure.

In determining the speed of adjustment, the study employed a model that allowed partial adjustment of a firm's capital structure towards a target leverage. The study employed the below model which was explained in detail in chapter three;

$$Y_{it} - Y_{it-1} = \delta_{it}(Y_{it}^{*} - Y_{it-1})$$

Where δ_{it} is equal to the speed of adjustment to the target debt ratio in a given time period. The component $(Y_{it}^{*} - Y_{it-1})$ is the total amount that debt capital must change in order to reach the target leverage level.

The table below shows the detailed regression results.

Table 4.7Estimation of speed of adjustment

	Coefficient	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Company (G)	0.19	0.13	1.48	0.28	-0.36	0.75	-0.36	0.75
Company (C)	0.40	0.09	4.36	0.05	0.01	0.80	0.01	0.80
Company (A)	0.64	0.12	5.52	0.03	0.14	1.13	0.14	1.13
Company (H)	0.25	0.06	4.16	0.05	-0.01	0.51	-0.01	0.51
Company (B)	0.51	0.04	12.66	0.01	0.34	0.69	0.34	0.69
Company (F)	0.23	0.02	9.61	0.01	0.13	0.33	0.13	0.33
Company (D)	0.55	0.05	10.24	0.01	0.32	0.78	0.32	0.78
Company (E)	0.20	0.10	2.05	0.18	-0.22	0.62	-0.22	0.62
Mean	0.37							

From the table above, the study found out that the value of $\delta it$for each of the sampled firm ranged from 0.19 to 0.64. Some firms were found to have negative values while others had positive values. However for all the firms that were sampled the value of $\delta it$was less than 1 indicating that commercial and services firms partially adjust to the target capital structure. In an event that this value is more than 1, then this means that there is over adjustment or instantaneous adjustment. In such an event, it simply means that the company would have adjusted their leverage over and above their target debt level.

The industry average adjustment rate had a mean of 0.37. This translates to 37%. This means that on average the firms listed on Nairobi Securities Exchange under the commercial and services sector close about 37% their gap between the target and existing capital structure in one year. This means that it takes on average 2years and 8 months for the commercial firms in Kenya to close the gap between their target and the current debt level. In other words, it takes approximately 2years and 8 months for commercial and services firms in Kenya to adjust to their target debt capital in an event of deviation.

The respondents were not aware of how long it takes for these firms to adjust back to their target leverage levels in an event of deviation. Only 2 of the respondents said they believe their firms take approximately 8 years to adjust back to the target capital structure. However, they admitted that knowing the exact time it takes to adjust back to the target capital structure would be beneficial to them and to their firms too so as to avoid the costs associated with the deviation from the target capital structure.

In conclusion, it can be concluded that on average commercial and services firms listed on NSE take approximately 2 years 8 months to adjust back to the target leverage in an event of deviation.

CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents an in-depth discussion of the findings of the research and whether the objectives of the study were achieved. The chapter does summarize the findings and make conclusions and recommendations based on the results of the research. The findings have been summarized in reference to the intended aims of the study. This study sort to establish whether the six determinants of capital structure; tangibility, profitability, size, risk, liquidity and non-debt tax shield significantly affect capital structure. In addition the study also sort to establish whether Kenyan commercial companies have a target capital structure that they are striving to achieve and if so at what rate are they striving to re-adjust back to the target capital structure in an event of deviation.

The chapter has been structured in a way that describes the findings and results under each intended objective, concludes the objective and makes recommendation if any.

5.1 Discussion

Regarding the determinants of target debt level, the study collected both primary and secondary data and analysed. From the data analysis, it was found that that all the six determinants of target capital structure under study: profitability, size, risk, non-debt tax shield, tangibility and liquidity significantly affect the target debt level of a firm. Using the p-values of these determinants it was established that all the variables had p-values greater than 0.05. This indicated that the relationship that exists between the dependent variable and all the independent variables is statistically significant.

This is consistent with a research carried out by Razali (2014) on the Malaysian property firms where he used the same variables as those used in this research, that is the Non-debt tax shield, profitability, liquidity, risk, size and tangibility. Razali (2014) concluded, based on the p-values, that the relationship that exists between these independent variables and the capital structure of property firms in Malaysia is statically significant.

In local research done by Omollo (2011), regarding the determinants of capital structure of all firms listed on the Nairobi securities exchange, where she used the six independent variables to this study, her findings were similar to that of this study and they were consistent with the findings and conclusions made by Razali (2014) on the determinants of capital structure of property firms in Malaysia.

The findings of this study based on the primary data collected were still similar to those findings on the analysis of the secondary data. All the respondents to the study concluded that they consider all the independent variables to this study when making financing decisions for the companies they work for and they believe to a large extent these variables play a critical role in determining the capital structure of firms.

All these findings were consistent with other researches carried out using similar variables across Africa and the entire globe. For instance, a research carried out by Athenia (2016) regarding the determinants of capital structure: a literature review, in South Africa, found out that non-debt tax shield, profitability, size, liquidity, tangibility and risk affect significantly the value of debt a firm holds at a specific point in time. In a more recent study carried out by Alexis (2017), using a comparative approach to determine capital structures of firms in developing country (Iran) and a developed country (Australia), he came up with the same findings that these independent variables significantly affect the value of debt of a firm.

The second objective of this study was to establish whether commercial and services firms in Kenya have target capital structures. For this objective the study used both primary and secondary data. The analysis of the primary data to the study found out that the respondents believe that there actually exists target debt level for commercial and services firms in Kenya. However they were unable to tell how much this was even for the companies they were working for. In most instances the respondents indicated that the target debt level for most firms listed on NSE had target debt level of 40% to 60%. The analysis of the secondary data to the study, showed that Kenyan commercial companies do have target capital structures. However most of these firms do not operate at their target debt levels.

The findings of the second objective are consistent with the research carried out by Omollo (2011). In her study which sought to investigate whether all firms listed on NSE exhibited target debt levels, she found out that all the firms did have target levels. However most of those firms did not operate at their target debt levels. This was consistent with the results of the study carried out by Razali (2014) which focused on property firms in Malaysia. In his study, Razali sought to find out whether property firms in Malaysia had target debt levels. His conclusions were that it is true property firms in Malaysia had target debt levels. The findings of this study are also consistent with the findings of the studies carried out by Michael Bradley, Gregg A. Jarrell and E. Han Kim who carried out a research on existence of

target capital structure they too concluded that the firms under their study did portray existence of target capital structure.

Lastly the study sought to find out the rate of adjustment to target capital structure in an event of deviation. The primary data revealed that out of all the respondents a majority of them were not aware of how much it takes for the firms to readjust back to their target debt levels. In as much as they agreed to existence of target debt levels, and they were too agreed that firms do not operate at their target debt levels, they were not aware of how much it takes for these firms to close in the gap between their current debt levels and their target debt levels. Apart from only two respondents who made wild guesses that they presumed the period to be 8 years, none was aware of how much this takes.

However apart from the results of the primary data regarding the readjustment speed, the study also analysed the secondary data collected so as to find out what the rate of readjustment is. The results of this analysis showed that on average it takes 2 years and 8 months for commercial and services firms to readjust back to their target capital structure in an event of deviation. The results put in percentage form, translated to 37%. This means in an event that commercial and services firms deviate from their target capital structure, it takes approximately 2 years to make a financing decision that will result to them having to come back to their target debt levels.

These results are not far off from the findings, results and conclusions of a study carried out by Omollo (2011), in which she concluded that all firms listed on Nairobi securities Exchange take on average 7 years to close the gap between the target and current capital structure. Given that in her research, Omollo (2011) was research on the rate of adjustment for all firms, may be should she have concentrated on commercial and services firms the results would be closer. In a study carried out by Tobias (2018) regarding the dynamic adjustment towards target capital structure a panel evidence of listed firms in Kenya, in which he concluded this rate to be approximately 51% which translates to approximately 2 years. The results of Tobias is not far off from the results of this study since the rate is almost the same which translates to the 2 years which is not far off from 2 years 8 months. All these researches put on a global rating as similar to research carried out by Razali (2014) in which he concluded that Malaysian property firms did have target capital structures and it takes them approximately 5.77 years for them to adjust back to the target debt level.

5.2 Conclusion

The study analysed the significance of the determinants of capital structure to the capital structure of Kenyan commercial companies. The study found out that the six independent determinants of capital structure were statistically significant and therefore had an effect on the capital structure of these firms. Based on the analysis of the collected data, the study established that the six independent variables to the study are statistically significant in establishing the capital structure of the commercial and services firms listed on the Nairobi securities Exchange. The coefficients estimated were significant. This was consistent with previous studies that were carried out using the same variables. It was therefore concluded that Non-debt tax shield, profitability, firm size, liquidity, business risk and tangibility affect target capital structure of commercial and services firms in Kenya.

Secondly, the study sort to establish the existence or non existence of target leverage among Kenyan commercial companies and the findings were that there actually exists target debt levels among these firms. However the study also established that these target debt levels were quite different from the already existing debt levels of the commercial and service firms. On the estimation of the target capital structure, the study found out that the Kenyan commercial companies exhibit target debt levels that is quite different from their existing debt levels. The study found out that on average the target debt levels of commercial and services firms ranged between 20% and 68% . This is different as compared to the sector average of 10% to 73% of the existing debt levels of commercial and services firms. It was therefore concluded that based on the findings commercial and services firms in Kenya have target debt levels.

Lastly the study sort to establish the speed of adjustment to the target debt level by the commercial and services firms. The study established that commercial and services firms do adjust to the target capital structure. The speed of adjustment was high at 37%. This can be attributable to the turbulence experienced by the commercial and services firms during the period under study. This means that since the firms were experiencing financial difficulties during this period, they tried to readjust quickly to their target levels so as to see if they can get through financial distress. On the estimation of the speed of adjustment which is the rate at which firms adjust back to their target capital structures in an event of deviation was estimated at an average of 37% for the commercial and services sector. The adjustment speed for the firms under study ranged between 19% and 64% with Kenya Airways adjusting quickly to the target debt level at 64% while Deacons adjusted slowly at a rate of 19%. Some

firms were found to have positive and negative adjustments speeds. However the absence of an adjustment speed of 1 implies that the commercial and services firms partially adjust to their target capital structure. It was therefore concluded that Kenyan commercial companies take approximately 2.7 years to adjust back to target leverage level in an event of deviation.

5.3 Contribution to the existing knowledge

This study has contributed immensely on the current existing body of knowledge regarding capital structure theory and more specifically target capital structure. The results and findings of the research regarding the six determinants of target capital structure namely; non-debt tax shield, profitability, liquidity, business risk, tangibility and firm size has contributed to the already existing knowledge on how these factors affect the capital structure of commercial and services firms by influencing the decision making process. The findings and conclusion of this research will enable industry players, including executive management to understand the dynamics of target capital structure and its determinants.

5.4 Implications of the research findings

The results, findings and conclusions of this research when relied upon by the industry players in practice and policy formulation will have a positive effect in enhancing the financing decision making process by managers and those charged with governance in these firms. Managers making a financing decision will be full aware of the implication their decisions will have to the company as a result of having knowledge of what it entails and what actually affects target capital structure. They will be aware of how long it takes to adjust back to the target capital structure in an event of deviation and what costs are incurred to have the companies adjust back to the target leverage level.

5.5 Limitations to the Study

One of the main limitations to the study was data collection since most firms just listed recently and therefore it was difficult to get these companies financial data prior to listing which fell in the period under study. This notwithstanding the study managed to secure the financial data that was relevant to the study. Secondly, due to unavailability of data which saw four out of the possible twelve companies listed under commercial and service sector de-selected and leaving the researcher with only eight companies to carry out research on created a limitation. This selection may not yield a true reflection of the financing behaviour of the commercial and services firms.

5.6Recommendations for further studies

This research employed total debt ratio which was proxied by total debt over total assets. Similar studies can be carried out using the market debt ratio measure of leverage. Book value of debt to equity can also be used. In addition the study was carried out for a study period of five years during which the commercial and services firms experienced tremendous changes in management and turbulence in their earnings. The findings of this study may be biased in the sense that during the period of the study the commercial and services firms in general were at their lowest moments. A similar study may be carried out for a longer period of time that takes into consideration the high moments of Kenyan commercial and services firms.

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Appendices

Appendix 1: Cover Letter

Alfayo Nasio

Strathmore University,

P.O. BOX 59857, 00200.

Nairobi.

6th Dec, 2018.

CEO

Nairobi Securities Exchange,

Nairobi.

Dear Sir/ Madam,

Re: Request for Secondary Data

I am carrying out a research designed to achieve a general objective of establishing the optimal capital structure, the key determinants of an optimal capital structure and the rate of adjustment to the target (optimal) capital structure in an event of any deviation, of Kenyan commercial and services firms listed on the Nairobi Securities Exchange for the period (1st July 2013 to 30th June 2018). This is in partial fulfillment of the requirement of the Master of Commerce Degree in Finance of Strathmore University Business School.

Kindly provide me with financial data for the eleven commercial and service firms listed on the NSE for the four-year period 2013 to 2017 as per attached collection sheet. In addition to this, kindly provide me with data regarding the share prices for the companies as per the list of companies attached.

Thank you in advance.

Yours sincerely,

Alfayo Nasio

Appendix 2: Questionnaire

SECTION 1: GENERAL INFORMATION

Name of the Commercial and services company
(Optional).....

Gender of the respondent

Male [ ]

Female [ ]

Age bracket of the respondent

25 years and below [ ]

25 – 35 years [ ]

Above 35 years [ ]

Highest level of education of the respondent

Post graduate [ ] Graduate [ ] Diploma [ ]

What is your current position with the current employer?

CEO [ ] CFO [ ] Finance Manager [ ] Chief Accountant [ ]

Number of years of experience in this role

1 – 5 [ ]

6 – 10 [ ]

11 – 15 [ ]

Over 15 [ ]

On a scale of 1 to 5, with 1 indicating rarely and 5 indicating most likely, how much are you involved in the Financing decisions of the company

1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

SECTION 2: Determinants of target capital structure

To what extend do the following factors affect target capital structure? (*Please select the appropriate*)

	Determinant	Large Extend	Moderate Extend	No Extend
1	No debt tax shield			
2	Profitability			
3	Risk			
4	Tangibility			
5	Liquidity			
6	Firm size			

What other factors apart from the factors listed above do you consider important when making the financing decision of your company. (*Kindly list three factors, in the order of preference*)

1.....

2.....

3.....

SECTION 2: Target Capital Structure

In your own opinion do you think companies have optimal target structures?

……
……
……
……
……
……
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…….

With an explanation, what do you think target capital structure is?

Do you think your company is currently operating at the target leverage level? (kindly explain)

What considerations should be made for a company to operate at target leverage level?

SECTION 3: Rate of adjustment to target capital

In your own opinion, do you think there is usually a deviation from the target capital structure? (Please explain)

In your own opinion, do you think companies struggle to achieve their target leverage?

In an event of a deviation from the target capital structure, how long does it take for companies to readjust back to the target capital structure?

Thank you for your responses

Appendix 4: List of companies

Commercial & Services Sector

Express Ltd
Sameer Africa PLC
Kenya Airways Ltd
Nation Media Group
Standard Group Ltd
TPS Easter African (Serena) Ltd
Scangroup Ltd
Longhorn Publishers
Atlas Development and Support Services
Deacons (East Africa)
Nairobi Business Ventures