DETERMINANTS OF CAPITAL STRUCTURE IN THE KENYAN MOBILE TELECOMMUNICATION COMPANIES

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DECLARATION

I, the undersigned, declare that this project is my original work and that it has not been presented in any other university or institution for academic credit.

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Signature ..... Date .....

This research project has been submitted for examination with our approval as university supervisor.

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DEDICATION

I dedicate this project to God Almighty my creator. My son, Liam Andrew Nganga, My Husband, Charles Nganga, My parents, Mr and Mrs Ihiga , My sisters, Njeri, Shiro ,carol and my brother, Maina and My late grandfather, Mr. Reuben Kabebero

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ABSTRACT

Theoretically, it is hypothesis in the pecking order that that management usually has more information regarding the company than the outside investors. These mixed results from various theories give need for research to investigate on the determinants of leverage of the company. In the Kenyan context, capital structure on profitability, capital structure decision making and capital structure on performance have many researchers review on these aspects. There is mixed empirical evidence on the determinant of capital structure among telecommunication in developed countries , hence the research gap which this study sought to fill by conducting a study in developing country like Kenya. The objective of the study was to establish the determinants of capital structure in the Kenyan mobile telecommunication industry. The study adopted descriptive research design study in which data was gathered just once over the period 8 years from 2009 to 2015 for 4 telecommunication companies in Kenya. The study was facilitated by use of secondary data. Multiple regression analysis was applied to the data to establish the determinants of capital structure in the Kenyan mobile telecommunication industry. The study found that that 80.4% changes on capital structure of telecommunication firms could be accounted for by changes in firm size, asset tangibility, firm growth, profitability and earning volatility. The study also revealed that there was strong relation ship between capiatl structure and firm size, asset tangibility, firm growth, profitability and earning volatility. The study further revealed that firm size, asset tangibility, firm growth, profitability and earning volatility significantly affects capital structure of telecommunication firms in Kenya. From the finding the study found that firm size had positive significant effect capital structure) of telecommunication firms. The study also revealed that asset tangibility had positive significant effect on capital structure of telecommunication firms. The study established that firm growth had positive significant effect on capital structure of telecommunication firms. The study found out that profitability had negative significant effect on capital structure of telecommunication firms. The study revealed that earning volatility had negative significant effect on capital structure of telecommunication firms. The study found that firm size, asset tangibility and firm growth positively influence the capital structure of telecommunication firms, whereas profitability and earning volatility were found to negatively affect the capital structure of telecommunication firms.

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ITU	International Telecommunication Union
IT	Information technology
CAK	Communications Authority of Kenya
NSE	Nairobi securities Exchange
G-7	Group of Seven
SPSS	Statistical Package for Social Science

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Following Modigliani and Miller influential paper on irrelevancy of capital structure, there has been large empirical and theoretical research aimed at determining the capital structure optimally. In their paper they explain that a company value is independent of it leverage under the assumption of frictionless and perfect capital markets (1958). Market friction exists in real world. Large bodies of studies have been conducted investigating the various theoretical literatures on capital structure. In these studies various factors have been identified as the determinants of capital structure, which includes the value of assets that can be used as collateral, size of the company, opportunities for growth and financial performance of the company among others (Titman & Wessels, 1988; Harris & Raviv, 1991;).

Leverage of the firm is among the key determinants of the decision made by management and they influence the shareholders return on equity, risk of the shareholders and shareholder market value of their stocks. During decision making on how the firm will raise investment funds decision are made (Salawu, 2007). This call for the management of firm to make appropriate decision on the company leverage. Following this, properly analyzing and balancing all factors that are relevant to the company's capital structure decision. These firms belong to various industries depending on characteristics such as technology, nature of products or services produced, among others. In any industry, some features of a market such as the number and given strength of sellers and buyers , extent of differentiation of

products, nature and form of competition, and erase of entry into and exit from the market are different.

A great effect on company capital structure is dependent on the industry it operates. In 1991, Harris and Haviv in their exploration of the leverage of the company found that it is normally acceptable for company in a given industry to have a comparable share of its own liabilities and assets. Empirical studies on company's corporate capital structure include (Bradley *et.al.,* 1984), who found existing on significant effect of firm industry on a cross section survey of company leverage. This is an indication that there is need for a research on various factors like risk of the business which change across industries and remain unchanged within an industry and how that affects the firm capital structure.

1.1.1 Capital Structure

In definition, leverage is the proportion of equity and debt used by the company to finance its own assets. Capital structure/leverage can also be defined as share of instrument of debt and required common share in firm's balance sheet (Van Horne, 1989). In order to support their sales, all firms need an operating capital. Financing has to be raised as a composition of debt instrument and share capital. Company leverage is a mixture of company common stocks and debt (Brigham & Ehrhardt, 2005). Normally, a specific company can go for different proportion of debt and shares, debt instruments and various financial engagements. In a bid to raise the value of the company in the market, the company cause use bond financing through lease, loan from financial institution or various options with financing through shares. A number of firms could have no debt at all as a result of being all equity financed,

whilst others could have high levels of debt due to their low levels of equity. For company with no instrument of debt, they are referred to as un-levered firm, which those with instrument of debt are referred to as levered companies.

A decision of capital structure plays a key role in the process of maximizing wealth of shareholders. A bad decision on leverage may result to big cost of capital, which results to low investments satisfactory hence decreasing the net present value of accepted investments and in addition increasing the company value. Notwithstanding the normal equity and debt levels varying over a period of time, company frequently strive to achieve or maintain the leverage near the ideal leverage . Choice of target leverage, the average maturity of its instrument of debt, and the key financing source, which include the decision on the company leverage. Management is under obligation to have leverage decisions that are in line with maximizing the overall company value. Whenever a company makes leverage investment decision has to be made. In hypothetical meaning, every company should plan for an ideal leverage. Through minimizing the firm value a by a proportion of equity funds and debt funds. It is hard to determine the leverage that is faultlessly optimal.

1.1.2 Determinants of Capital Structure

Company leverage is affected by different factors of which a company should make attempt to establish its optimal or best mix of financing. The best ideal proportion of share capital and debt instruments is one which utilizes the value of the company and diminishes the implication of cost associated with capital. Through analysis key factors the company is able obtain a capital structure, which is believed to be optimal. Miller and Modigliani (1958) in their dividend irrelevance theory propose that the value of a company is autonomous of its

leverage under certain conventions. Miller and Modigliani (1958) further asserts that if the company value depended on it leverage, there is sufficient chances in the faultless capital market. Furthermore, investor can diminish any decision on leverage for the company if both outside investor and company can borrow at the similar rate of interest. Trade off theory and pecking order hypothesis are theories that have impractical proposition which clarify capital structure different aspects.

The trade-off theory involves that a company make adjustment toward an ideal capital structure which is subjective to three factors which are taxation, costs associated with financial distress and the cost of agency. The use of these debts provides tax benefits and also creates a serious financial distress in case of relying on too much debt. Agency costs may also be a base of conflict of interest between different stakeholders of the firm because of information asymmetry (Jensen, 1986). Under this theory, a firm considers the cost and benefits associated with debt capital in bringing its capital structure near to the optimal level.

The pecking order hypothesis is ground on the proposition that management is better versed with information compared with other company investor, which results into information asymmetry. The theory tries to explain how a company raises new funds to finance new projects. The pecking order theory indicates that firms have preference to financing new investments starting with internal funds, then debt financing and lastly issuing of shares (Myers, 1984). It assumes that a company does not target a specific debt equity ratio but it only uses external sources of finance when the cheaper sources of financing (retained earnings) are exhausted.

1.1.3 Mobile Telecommunication Companies in Kenya

In Kenyan economic growth, telecommunication industry is of great significance. Mobile telecommunication industry has a growing effect on the livelihood of citizen, business customer and other business through efficiency and competitiveness of the country based on performing economy. Mobile telecommunications service are positively and extremely forced to deliver new amenities to their customers due to the Model Shift from the marketing mix of 4Ps toward association marketing industrial marketing, services oriented marketing and economics based on demand from customer service and a move in the direction of association-oriented approach in marketing (Gronroos, 2004).

Mobile telecommunication companies are frequently experiencing fundamental changes, bringing new occasions and experiments for infrastructure and facility providers. Due to the entertainment, convergence of IT and triple play of mobile telecommunication, this had resulted in tremendous growth and change in production due to increase in the usage of mobile phones in the world (ITU publications, 2012). During the year 2010, the increase in the number of subscriber in the global arena rose to 4 billion. According to GSM association which is the telecom industry body, it is expected that by year 2020 the number of mobile subscriber in the world will cover over 90 percent of population in the world. According to ITU Publications (2002), government all over the World has gained over 6 billion dollars from mobile telecommunication industry. According to ITU Publication in year 2002 almost a third of the world population is connected to mobile phones.

In the Telecommunications industry in Kenya there are three players. These include: Safaricom Limited, Airtel Kenya and Telkom Kenya. Telkom Kenya operates under the

Orange Brand. The dynamism in the industry has not only led to Kenya being taunted as the Silicon Valley of East Africa, but is also having a big role in the country's growth and transformation in line with the Kenyan Government's Vision 2030. Kenya's Telecommunication market has grown tremendously over the last few years. Competition has significantly increased, with the growing number of mobile operators in the Kenyan Market. There being several players on the market and with Communications Authority of Kenya being a body mandated to level play and control the market, this has resulted in the prices dropping by over 70% in the past four years (CAK, 2015).

1.2 Research Problem

Theoretically, it is hypothesis in the pecking order that that management usually has more information regarding the company than the outside investors. The pecking order hypothesis argues that company prefers to fund their investment with internal funds, followed by dent instrument and lastly the issue share to raise capital (Myers, 1984). According to the trade-off theory, company make adjustment on its capital structure towards the ideal capital structure which is mainly influenced by taxation, cost associated with financial distress and the agency cost. The use of debt provides tax benefits and can also create a serious financial distress in case of relying on too much debt. Under the agency theory, a firm considers the cost and benefits associated with debt capital in bringing its capital structure near to the optimal level. The signalling theory, attempts to solve the under investment, which results from then asymmetry in information, through the decision of financing choice. The assumed association between company-key characteristics and capital structure are founded on foundations in theory. It is evident from that there is mixed theoretical conclusion on

determinant of capital structure. These mixed results from various theories give need for research to investigate on the determinants of leverage of the company.

In the Kenyan context, capital structure on profitability, capital structure decision making and capital structure on performance have many researchers review on these aspects. Mwangi, Makau and Kosimbei (2014) did an empirical study on association among leverage profitability of non-financial companies quoted in the Nairobi Securities Exchange; the study established that capitals structure leverage had a negative effect on performance. Yegon, Cheruiyot, Sang and Cheruiyot (2014) in their study on how profitability is affected by the capital structure among commercial banks listed in The NSE, established that short term debt had a direct association with financial performance. Sagala (2003) in his study established that found that capital structure had a changing effect on company COC to various company when a study on the association between COC and leverage of the company listed in Nairobi Securities Exchange NSE was conducted.

Empirical studies done on capital structure in the telecommunication industry include; Liu and Ren (2009) did a study on Chinese telecommunication in order to establish their capital structure, the study established that company size was positively associated with leverage, while growth opportunities for the firm and financial performance, liquidity, revenue growth rate and firm growth were negatively related with debt to equity ratio. Chen (2004) did a study on the determinants of company -level leverage in Chinses telecommunication companies using a balanced panel of 77 Quoted companies. The study revealed that capital structure among telecommunication companies in China seamed to increase with non-debt

tax shield, size of the firm and tangible assets, and negatively related with profitability and associates with industries type. Wahab (2014) did a study on the determinants of capital structure: an empirical investigation of US listed telecommunication Companies. The study found that leverage was negatively associated with interest rate and liquidity level. It was established that financial performance was not significantly affecting the company financing decision; this was not in line with finding from studies done in United States of America. There is mixed empirical evidence on the determinant of capital structure among telecommunication in developed countries , hence the research gap which this study sought to fill by conducting a study in developing country like Kenya.

Much of the empirical research on the determinants of capital structure in telecommunication industry has been conducted in developed countries, where the operating environment is different from that of developing country like Kenya. There is little empirical research don on telecommunication companies in developing countries like Kenya, hence the research gap, which this study sought to fill. This empirical study aim to bridge the surviving research gap by answering to the following research question: What are the determinants of capital structure in the Kenyan mobile telecommunication industry?

1.3 Research Objective

To establish the main determinants of capital structure in the Kenyan mobile telecommunication companies.

Specifically the study sought

i. To establish the relationship between size of the firm, asset tangibility, firm growth, profitability and earnings volatility on capital structure of mobile telecommunication companies in Kenya.

1.4 Value of the Study

Management of telecommunication companies: The findings of this research would help in establishing if the relationship between a firm's leverage and its determinants depends on industry affiliation. Managers of telecommunication companies in Kenya would gain knowledge of industry factors that influence their capital structures and therefore be able to make appropriate financing decisions.

To the government: Government policy makers would use these findings to set guidelines for firms in each industry. Business advisers and finance consultants may be interested in knowing the factors that influence capital structure design among firms in each segment of the capital market.

To the researchers and academicians: Researchers and academicians will use the empirical study as the foundation for other future studies on capital structure in the telecommunication industry. The study added to the body of knowledge on determinants of capital structure in the Kenyan mobile telecommunication industry. The study will act as the foundation for future research by providing literature on the factors that determine the capital structure of companies in the mobile telecommunication industry

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter explores the various literatures from empirical studies done by scholars and academicians on the topic of the study. This section explores , what other studies conducted by other author and scholars about determinants of capital structure in the Kenyan Mobile Telecommunication Industry, in particular, section 2.2 covers the theoretical review of literature; where the pecking order theory , tradeoff theory , agency theory and signalling theory are reviewed , in section 2.3 determinants of capital structure are review , in section 2.4 the study reviews the local research , in section 2.5 covers the conceptual model and lastly section 2.6 capture the literature reviews summary.

2.2 Theoretical Literature Review

There are four key theories that have been put forward in order to explain the financing decision of companies. These key theories postulate the amount of capital structure adopted by accompany way on the cost benefit analysis of the capital structure. The advantage of debt as source of capital structure of the company is due to it tax advantage, as the interest from debt is tax allowable expense. Though through the debt financing the company incurs the agency cost, bankruptcy cost and non-debt tax shields loss (Brealy & Myers, 2002). Based on the theoretical literature, the ideal leverage of the company involves decision on balancing among these costs and benefits. A transitory overview of the, models put forth is as monitors:

2.2.1 The Pecking Order Theory

This theory proposes that a company follows various funding hierarchy owing to cost associated with information asymmetry (Myers & Majluf, 1984). Company purposely faces two possible costs when they method the outward markets to increase capital, information irregularity costs and operation costs. These extra costs associated with external funding make it more costly and naturally make company to use internal funding over external source of funds. Separation of management and ownership in company leads to information asymmetry. This lead to the management issuing shares /equity when the value of the firm is high as they have information relating to the firm value (Myers & Majluf, 1984). This lead to equity being underpriced as there exist information asymmetry between manager of the company and outside investor, to account for managerial incentives, this results to underinvestment by the firm because they information asymmetry make share an expensive source of financing. How the problem of information asymmetry does not affect retained and also debt as it requires a fixed rate of payment of interest and, which lender them insensitive to information asymmetry.

Source of company financing can also be indicated by the transaction cost. Baskin (1989) states that cost for debt can be as low as 1percent of the capital raided through debt, in comparison with cost raiding equity which may be between 4 percent to 5 percent of the total amount raised through equity. From the above information it is evident that debt is more desirable source of funding with comparison to floating shares. Compelling into account the cost consideration companies will go for internal source of finance first compared to external source of financing, while preferring debt more than equity in the case of external financing

(Donaldoson, 1961). The pecking order theory proposes on existence of optimal capital structure, where it states that capital structure is a function of company financial needs to get into the external market , when it internal funds are not enough to support their investment opportunities.

2.2.2 The Trade-off Theory

This theory is a branch of the financing model of Modigliani and Miller, which dictates that financing decision of a firm. This theory argues that interest is a tax allowable expense, which results to company with huge tax expenses having low taxable profits. Through an increase in debt instrument in the firms in books of account, can get the tax benefits by having interest tax shield (Lewis & Sappington, 1995). It further argues that an increase in debt can lead to an increase in financial distress. The theory also argues that high level of debt may results to firm being unable to meet their financial obligations, which may results to increase in chance of default. These results to a balance between the benefit and cost of the debt, companies facing a decreasing marginal advantage of instrument of debt and aggregating negligible cost associated with debt.

This results to company borrowing up to the point of equilibrium between the marginal tax benefit and marginal costs of bankruptcy in an attempt to maximize value (Myers, 1984). The value of the firm increases because of the tax shield provided by interest when taxes are introduced specifically the tax deductibility of interest. As more debt is introduced in to the company there is decrease in weighted average cost of capital, which is attributed to the lowering the cost of debt by the tax shield. This theory argues that optimal capital structure of the firm is achieved when there is 100 percent debt financing.

2.2.3 The Agency Theory

Through the separation of management and ownership of a company there stems the agency cost theory, agency cost contributes to the conflict of interest between the owners and the management of the company. Jensen (1986) was the first to pint out at the classical example of the agency problem, which he referred to as the free cash flow problem. Jensen (1986) further states that the company management may destroy the value of the company by overinvesting in activities such as empire building , which result from the managers having excess free cash flows. This results to company disciplining management by increasing the level of leverage, which results into committing the management in to paying interest through the excess cash flow, which forces them in to investing into profitable venture to manage debt repayment. In such situation, even when internal fund are available debt is more preferred. Debt helps in putting up mechanism to control and discipline the management and put a limit of private benefit exportation (Jensen, 1986; Lewis & Sappington, 1995).

Conflicting interest between the owners and bondholder is another repercussion of the agency theory (Jensen & Meckling, 1976). Where the bondholder has a high priority they claim over the shareholders. This results to engagement of less risker investment projects or under investment by shareholders in a bid to minimize the benefit of bondholders. Myers (1977) claims, this will cause firm to pass on important investment opportunities, which is a results to a problem of stronger firm under-investment. Stronger firms are better to use equity financing investment opportunities. Grossman and Hart (1988) argues the only wat to overcome the under investment problem is through the use of short term financing, where short term financing , will assist to align both the manger interest with those of shareholders.

2.2.4 The Signaling Theory

The signalling theory tries to address the under investment problem in the agency theory, which results from information asymmetry of the tradeoff theory, through leverage choice. Ross (1977) states that through signalling the value of the firm to the outside investors and information communicated through various financing option available to the firm. Ross (1977) further argues that higher quality earning and higher future cash flows to outside investment results from high mix of debt to equity. Though debt increases, companies are relying the information that they will meet interest expense in future and higher financial performance and future cash flows. This lead to company committing themselves to high level of debt, which as a signal to future market expectation.

This leads to the question how companies are able to choose their capital structure (Myers, 1984). The company determines its capital structure through specific company characteristics. The focus is on information asymmetry, agency costa and tax shield benefits, which these theories seek to test over the years. Structure of the company assets, classification of industry where the firm belongs, non-debt tax shield, opportunities for growth, firm size, uniqueness of the firm, volatility in earnings and financial performance are the characteristic identified to impact of financing decision of the company (Titman & Wessels, 1988). Titman and Wessels (1988) postulated the associations between the identified company important characteristics and debt to equity ratio are based on groundings of the signaling theory.

2.3 Determinants of Capital Structure

Myers and Majluf (1984) argue that there is direct association among the security assets value and leverage of the company. Myers and Majluf (1984) state that a company may be

comfortable floating protected debt as a way of reducing the problem of information asymmetry. DeAnglo and Masulis (1980) argues that company with large non-debt tax shield, have reduction in benefits to take advantage from the tax advantage of debt. This results to them undertaking less debt to equity. Companies with huge debt levels are more likely to sacrifice lucrative opportunities for investment (Myers, 1977). This leads to companies with higher expectation for future cash flow growth, to be motivate to use share capital to fund their opportunities for investment.

In the event of liquidation company which offer different unique product are likely to have higher cost of bankruptcy higher (Titman, 1988). This is as a result of special skills that are required and the special employee need and their respective customers, which cannot be duplicated at ease. This leads to such company lowering their leverage. Based on the above hypothesis Titman (1988) states that firms involved in manufacturing should have lower leverage in comparison with specialty industry companies. Large firms which are more diversified tend to use high leverage as they are facing lower risk of bankruptcy (Ang, Chua and McConnell, 1982; Warner, 1977). The limitation of tax advantage by companies with higher volatile earning force them not to use high debt levels as they have less incentives (Deloof and Verschueren, 1998). Lastly according the pecking order hypothesis of financing hierarchy, empirical literature proposes that companies with higher returns utilize more of internal funds which results to lower leverage levels (Myers, 1984; Donaldson, 1961).

Bancel and Mittoo (2011) in their study on European based companies, revealed that crediting rating, flexibility in financial and tax advantage were the key factors that informed

the firm debt policy. In considering the issuing of debt and equity, interest level and prices of share are key factors to be considered. In order to establish the determinants of capital structure of the firm, huge amount of empirical literature have been put forward. Empirical results propose important deviation from theory in practice.

According to Titman and Wessels (1988) there is negative association between financial performance and company uniqueness and the level of debt. Empirical evidence suggest that there no association between company expected opportunities for growth, non-debt tax shields and value of collateral assets and volatility in earnings and leverage. On another note Harris and Raviv (1991) in their survey , they found that there is direct relation among size of the firm , tangible assets , non-debt tax shields and available opportunities form investment opportunities, with leverage , they further revealed that there was negative association between uniqueness of the firm, risk of bankruptcy risk and leverage. Rajan and Zingales (1995) in their study established that capital structure was positively associated with firm size and tangible asset tangibility and negatively associated with profitability and firm growth.

2.3.1 Size of the Firm

Empirical evidence supports the existence of negative association between cost of bankruptcy as part of value of the firm and value of the firm itself (Ang *et al.*, 1982). The y further argues that as the company value decrease the direct bankruptcy cost apper to take large portion of its value. Large companies are more diversified and for this reason they face lower bankruptcy cost risk (Titman & Wessels, 1988). According to trade off theory large companies which are more levered experience low cost of financial distress. Rajan and

Zingales (1995) established that capital structure is positively related to size of the company as seen by survey of all the G-7 countries, with exception of Germany, which exhibited a negative association. Deloof and Verschueren (1998) from this study revealed that firm size was positively associated with capital structure , however this association did not hold when short term debt only were considered.

However, some empirical studies have established that with increasing information asymmetries, small firm experience high cost of issuing share (Smith, 1977). Rajan and Zingales (1995) propose that asymmetry in information exist amongst management and external investor in capital markets is less in larger companies, which results in then cost of share being lower for large companies , which make it make more used method of financing for large companies. When making choices on the source of external financing issuance cost is another key factor. Small companies are deterred by these costs in to taping the equity market (Schoubben & Hulle, 2004). Small companies results into issuing debt so as to reduce the cost of issuance. The tradeoff theory suggests a negative association between firm size and capital structure.

2.3.2 Asset Tangibility

Companies financing decision may be triggered by the type of asset held by the company. Myers and Majluf (1984) suggest a positive association between the value of collateral of assets and firm capital structure. They argue information symmetries by the company may be reduced by the company selling off secured debt. Floating debt may be hard to outside investor where information asymmetry exits it. In the same note Scott (1977) has suggested that company may increase the share value by issuing protected debt. In the same line of

argument, Galai and Masulis (1976) argue that if debt is secured, borrowers are forced to use the funds for a particular investment project only. There are no such restriction that can be used in the case of unsecured debt, creditors may negotiate for more costly terms of debt financing. This may cause the company to float share rather than issue debt. Rajan and Zingales (1995) propose that value of collateral assets should act to reduce the agency costs associated with debt and shares such as risk shifting. Thus firm with higher asset tangibility are likely to benefit from credit facilities form lenders.

On the opposing, Grossman and Hart (1982) suggest that capital structure is negatively associated with tangible asset in agreement with the agency theory. They argue that in order to align the interest of manager and owner high level of debt can be used. Through high level of debt, there would be higher cost associated with bankruptcy, which would limit expropriation of management private benefits. Grossman and Hart (1982) in their argument states that firms with low value of collateral assets may experience higher agency cost resulting from hardship in monitoring the outlay in capital of such company. In an attempt to disciple management companies with low value of collateral assets have high levered level. Existing studies, which include Rajan and Zingales (1995) and Harris and Raviv (1991), are in agreement that there is a positive association between asset tangibility and capital structure.

2.3.3 Firm Growth

Association between firm growth and capital structure is not inconclusive. Companies which have financed their operation through debt are more committed to debt repayment. Growing firm may force the company to avoid debt financing, which force them to let go investment

opportunities due to debt financing (Myers, 1977). Due to the nature of growth, which are capital assets which may increase the form value but does not lead to increase in collateral value of assets and does not increase company taxable income, which leads to the negative association between leverage and firm growth opportunities, which is consistent with the existing theories of capital structure? Growth of the company may require funding which is above the internal funding to finance their investments, which result in to them using more of debt financing compared to equity financing as postulated by Myers and Majluf's Pecking Order theory (1984). Deloof and Verschueren (1998) revealed a positive association between capital structure and growth.

Jensen and Meckling (1976) and Galai and Masulis (1976) have demonstrated that owners of levered company have a motivation to finance sub-optimally to divert wealth from debt holders. This agency problem is exhibited in firm with high opportunities for investment referred to as growth companies. In a bid to divert the sub-optimal investment, companies with growing industry choose more of equity financing over debt financing. Myers (1984)argue that through the use of short term debt compared to long term debt this problem can be mitigated, while Green (1984) propose the use of debt that can be convertible. Rajan and Zingales (1995) established negative association between capital structure and growth. This negative association is however attributed to company timing their share issue when their share prices are high, which cause leverage to be lower temporarily. Otherwise, Fama and French (1992) propose that high capital structures results into high costs of financial distress. Due to higher rate of discounting of stock of company in financial distress by the market which leads to the negative relationship.

2.3.4 Profitability

As suggested by Myers and Majluf (1984), pecking order theory is key in the determination of association between capital structure and profitability of the company. According to Pecking order theory, company systematical follows a hierarchy in financing. Due to information asymmetry in the market, it is costly to float security with which outsider investor is unaware. This forces the company to find internal financing being cheaper option. Due to the fact that debt holder receive high and constant revenue from interest payment , which results to them having higher stake in company asset compared to the owners this lead to them having less information asymmetry as compared to owners. Hence when making decision on source of funds to finance their investment project companies prefer more of internal funds to debt and debt more than equity.

The financing hierarchy of pecking order hypothesis states that that profitable company will decreases their debt to equity ratio as they will mainly meet their funding needs through internal funding's. Company with rich cash flows seems to suffer from the agency problem which was argued by Jensen (1986). Management sometimes gets their own benefits through creation of conflict of interest between the owners and the management. These results in disciplining the management by increasing debt to equity ratio, which seems to put a limit to usage or perquisites. This results to an inverse association between capital structure and financial performance. Titman and Wessels (1988) and Rajan and Zingales (1995) revealed an inverse association between capital structure and firms financial performance.

2.3.5 Earnings Volatility

Firm risk level is exhibited through earning volatility. High chance of default results from the company high financial distress cost which is an indication of riskier company. High bankruptcy cost in high risker company result into them being under levered as suggested by the tradeoff theory. Tax advantage of debt is benefit not fully exploited by firms with high volatile earning. On the same note Titman and Wessels (1988) argues that there is a negative association between earning volatility and state of ideal debt level. Deloof and Verschueren (1998) in their study found an inverse relationship between capital structure and volatility in earnings.

There is simultaneous increase in the company risk as the cost of dent level seems to rise (Schoubben & Hulle, 2004). Debt holders use the cost associated with bankruptcy, in their negotiation to protect themselves, which results to increase in the cost of debt. In line with argument of the pecking order financing hierarchy. Debt has a high cost, this force risky company to use internal financing rather than debt, these results to negative association between volatility in earning and company capital structure (Schoubben and Hulle, 2004).

2.4 Empirical Literature Review

Pathak (2005) carried out a study on leverage decisions for Indian firms. He used a regression model to analyses the variations in the capital structure. The findings of the study were that the major determinants of capital structure were liquidity, firm size, assets tangibility, growth, profitability, and liquidity a second tier determinant that is research and development that is related to leverage. The findings of the study were that leverage increases with tangibility, growth and firm size. The study further established that leverage increases with the decrease with profitability, liquidity and business risk. The results of this

study imply that assets tangibility, growth, and firm size are positively related to leverage. In contrast, profitability, liquidity, and business risk are negatively related to the capital structure.

Shah and Hizaji (2004) carried out a study to measure the determinants of capital structure in listed Pakistan companies for a five-year period Pooled regression model of panel data analysis method was used in analysing the collected data. The study found that the company tangible assets were positively related to capital structure though the association is not very significant statistically. The study further established that size which was measured by the log of sales is positively related to leverage. This implies that larger firms employ more levels of debt in their financing. The study further found that growth which is measured by percentage change in total assets is negatively related to debt. A positive relationship was found between profitability and leverage. Based on the results of this study tangibility of assets, size of a firm, and profitability of the firm are positively related to leverage whereas growth of the firm is negatively related to the leverage.

Kunt and Maksimovic (1994) carried out a study to establish the main determinants of capital structure for countries in developing countries. The sample size comprised of ten developing countries. The study established that assets, industry effects, liquidity, firm size, firm growth and tax effects affected the capital structure of firms. The study further established that company assets, level of liquidity and category of industry were more significantly affecting the leverage of the company more that growth of the company, size of the company and

effect of tax. The study further revealed also debt instrument which was negatively related to net fixed assets.

Rajan and Zingales (1995) did an empirical study on G-7 companies and their capital structure. Their study found that the capital structure was positively associated size of the company and assets tangibility defined in this study as the proportion of fixed to total assets). The study also found that leverage was inversely related ration of market to book and level of financial performance of the company. Huang and Song (2006) carried out a study on the determinants of capital structure for firms in China their sample comprised of more than 1,000 listed Chinese companies and used accounting and market data in their study. The study found that leverage; non-debt tax shield and company size were positively associated with the leverage levels and negatively related with profitability.

Marsh (1982) conducted a study to find out key factors that influence the choice of capital structure by companies. He used a logit model in his analysis to analyses the financing instruments used by firms. The study found that firms in choosing the financing instruments act as though have a target for the long-term debt to equity ratio and for short to long term ratios. The study also establish that long-term debt is influenced by company's size, assets composition and operating risk.

Kamere (1987) carried out a research on factors that influence capital structures of public companies. He found out that management of quoted companies preferred internally generated funds and debt financing. This could be attributed to the need for the current

owners to maintain control hence lack of new share issue which could be seen to decrease their shareholding. He also found that stability of future cash flows and level of interest rates as determinants of capital structure were significantly related to leverage.

Omondi (1996) set out to study capital structure in Kenya. He tested whether asset structure, industry structure, interest rate, size of firm, growth of firm, profitability, changes in cash flows, age and ownership structure affected debt to equity ratio of listed firms. In his findings, industry structure was not a statistically significant determinant of capital structure, and that capital structure of firms on the sectoral basis was different. He concluded that industrial class plays a significant role in capital structure.

Kiogora (2000) undertook a research to examine the leverage nature used by companies quoted in the NSE. The study objective was to examine if the leverage of the company differ as industry category and whether company in the same sector had similar capital structures. The results indicated differences in capital structures in different industries and that firms within the same sector exhibited almost similar capital structures.

Chode (2003) studied determinants of public enterprise capital structure in Kenya. His period of study was between 1994 and 1998. He used regression analysis and found out that enterprises depended on government funding, which he categorized as equity. He also concluded public enterprises did not endeavor to maximize profits in a competitive market and their managers did not have the motivation to respond to competition.

Odinga (2003) did empirical study capital structure determinants among quoted companies sin the NSE, the study analysed the data using regression analyses in a bid to analyses the secondary data. The study tested various variables such as assets tangibility, financial performance, business risks, growth, size and non-debt tax shield. The study revealed that financial performance and non-debt tax shield are the most important variables in estimating the company leverage. The study found out that many variables vary from company to company indicating that company key factors determine the nature of the company leverage.

Kinyua (2005) did a study on the determinants of leverage of small and medium-sized enterprises in Kenya. The study which covered a period of four years, between 1998 and 2002, he used multiple regression and correlation to analyze the collected data. The study found that financial performance (ROA), size of the company, structure of the assets, attitude of management regarding risk and attitude of creditors in regards to firm key determinants of leverage for small and medium enterprises in Kenya.

Matibe (2005) did a study on the association between ownership structure and leverage among companies listed in the NSE. The study covered five years, between 1998 and 2002. The study used correlation analysis to analyses the secondary data collected. The study revealed that company owned by the government are additional likely to appropriate than those owned by private individual, institutions or even foreign investors. The study established that public-owned firms have more access to debt than firms owned by individuals and foreign investors. Kamau (2010) conducted a study on the association among leverage and profitability of Kenyan insurance companies. The established that there was a

weak association amongst profitability and leverage, thus leverage slightly influenced the profitability of insurance companies in Kenya.

Kuria (2010) set out to analyze the determinants of capital structure of firms listed in the NSE. In her findings, she concluded that larger and more profitable companies uphold high leverage while high growing companies utilize less debt instrument. The study also revealed that companies with high non-debt tax shields use more debt than equity.

Chieyoe (2012) did a study on capital structure determinants among SMEs in Monrovia, Liberia. The study found that profitability, asset structure and age determine capital structure but Size and growth do not influence capital structure. Profitability was found to have a negative relationship with leverage which supports the pecking order theory. Asset structure and age were found to have positive relationship-this positive relationship explains the concept of information asymmetry.

Muema (2013) on his study to establish the capital structure determinants among firm quoted in the NSE, found that in Agricultural segment, the key determinants of capital structure are liquidity and financial performance. The Commercial and Services sector had size of the firm as the only key determinant of capital structure, while profitability was the only factor in manufacturing segment found to be significantly connected with capital structure. In Construction and allied segment profitability, tangibility of assets, and non-debt tax shields turned out to be the key factors that influence the choice of capital structure. For Energy and Petroleum segment, profitability, tangibility of assets, size of the firm and growth of the firm

proved to be significantly correlated to leverage. In Telecommunication, Automobile and Investment segments, no factor showed any significant correlation with leverage. For the combined segments, tangibility of assets and non-debt tax shields were found to be the key determinants of capital structure. In summary, all the results from the separate regressions and the combined run do indicate that there are disparities in the factors that influence the choice of capital structure.

Gichangi (2014) did a study on the association among profitability and capital structure of listed non-financial firms in Kenya. The long-term liability to equity indicated an inverse relationship to profitability at -5.70%, with an adjusted coefficient of determination of 97.80%. The study revealed that company financial performance profitability (measured by return on equity) was directly associated with the short-term debt at 18.10% and longterm debt (LP/PL) at 56.20%. The study found that there is inverse association amongst leverage and financial performance. The results are in line with the pecking order theory and information asymmetrical theory.

2.5 Conceptual Model

Mugenda and Mugenda (2003) explain that a conceptual model is a proposed a picture that recognizes the model under study and the association among the variables. According to Kombo & Tromp (2006) conceptual model as a particular set of wide-ranging ideas and philosophies taken from important fields of investigation and which are used to construction a succeeding demonstration.

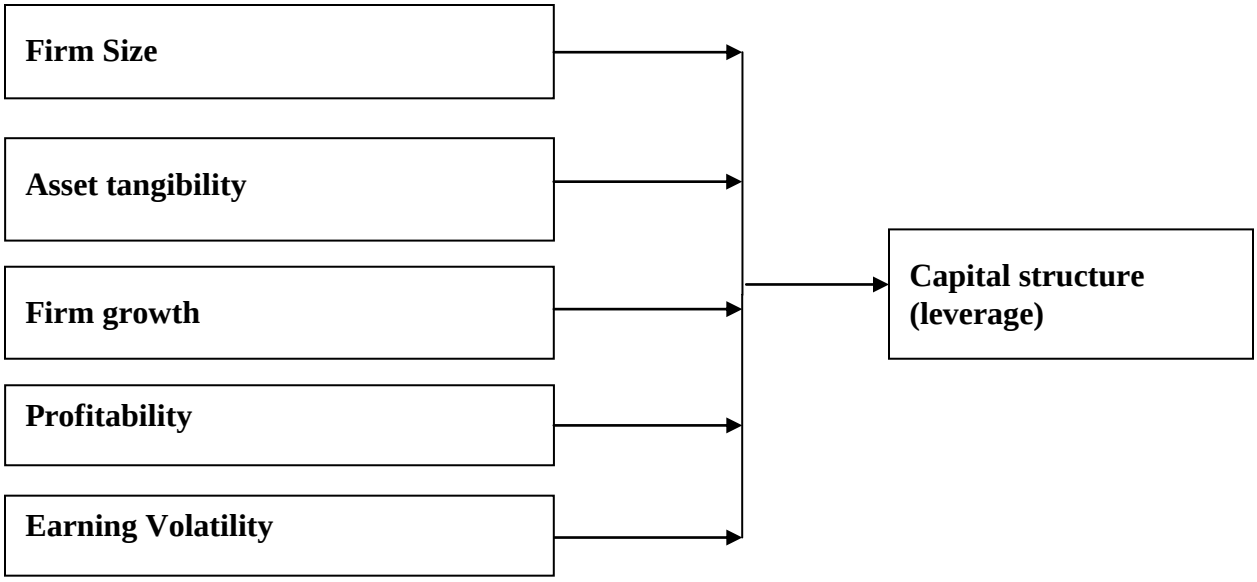

Figure 2.1: Conceptual Framework

From the literature reviewed the study sought to validate the following conceptual model. The following conceptual model will be adopted in the study to establish the determinants of capital structure in the Kenyan mobile telecommunication industry:

$LV_{it} = f(SIZ, AT, FG, PROF, EV)$……..…….(1)

Where

LV = Leverage/Capital Structure

SIZ = Firm Size

AT = Asset tangibility

FG= Firm Growth

PROF = Profitability

EV = Earnings Volatility

2.6 Summary

From the foregoing literature, it is evident that empirical evidences on the various determinants of capital structure give conflicting results. Theoretically, it is hypothesis in the pecking order that that management usually has more information regarding the company than the outside investors. The pecking order hypothesis argues that company prefers to fund their investment with internal funds, followed by dent instrument and lastly the issue share to raise capital (Myers, 1984). According to the trade-off theory, company make adjustment on its capital structure towards the ideal capital structure which is mainly influenced by taxation, cost associated with financial distress and the agency cost. These mixed results from various theories give need for research to investigate on the determinants of leverage of the company. Empirical studies done on capital structure in the telecommunication industry include; Liu and Ren (2009) did an empirical analysis on the capital structure of Chinese listed telecommunication Companies. Chen (2004) did a study on the determinants of company - level leverage in Chinses telecommunication companies using a balanced panel of 77 Quoted companies. Wahab (2014) did a study on the determinants of capital structure: an empirical investigation of US listed telecommunication Companies. There is mixed empirical evidence on the determinant of capital structure among telecommunication in developed countries , hence the research gap which this study sought to fill by conducting a study in developing country like Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section explore the research methodology and process that were used in this study, in particular, section 3.2 explore the research design used in this study, in section 3.3 presents the target population and sample for the study, section 3.4 presents the data and data collection instruments and section 3.5 covers the data analysis where it present the conceptual model and analytical model.

3.2 Research Design

Research design indicated the basis activities which are vital in executing a research paper. A research design, according to Mathoko *et al* (2007) states that research design involve decision making to give a key plan which states that various methods and process to be involved in collecting and analysing the collected data from purpose of answering the research objective. This study used descriptive reserach design. Kothari, (2004) explains that descriptive research , involve surveying facts , through enquiries and contributing to ading the body of knowledge for the topic under invetsigation.

Thsi research design aimed at determining and describing the curent status of teh varible udnet inetstigation (Mugenda & Mugenda, 2003). In this study, a descriptive research is preferred because it describes how leverage is related to any one of the independent variables, that is; profitability, firm size, firm growth, asset tangibility and earning volatility.

3.3 Population and Sample

In statistics, population of the study is the exact people about which info is anticipated. Study population was the telecommunication companies in Kenya.There are a total of 4 telecommunication companies in Kenya which formed the target population for this study. Mugenda and Mugenda, (2003), furtehr sttaes that study population ned to have some simmilatr charateristic , which can help in the generalziation of teh stduy findings ,to what is intendeed by the study. The study was census survey as all the telecommunication firms were involved in the study.

3.4 Data and Data Collection Instruments

In this study data in secondary form was utilized, this data was obtained form company annual reports and capital market authority. Capital structure data which was used to calculate leverage was gotten from annual published reports by the company. Secondary data was collected from company annual publication and financial statements in the company annual reports.

Secondary data for from year 2008 to year 2015, covering a period of 8 years period was collected for the purpose of this study. Secondary data collected on various variables was used to quantity the study variables: leverage, profitability, firm size, firm growth, asset tangibility and earning volatility. The data was collected with the help of a Data collection sheet, a sample of which can be seen in Appendix I.

3.5 Data Analysis

Data was analyzed using Statistical Package for Social Sciences (SPSS Version 22.0) program. Both quantitative analysis and regression analysis was used as data analysis technique. The data collected was run through various models so as to establish the determinants of capital structure in the Kenyan mobile telecommunication industry. Logit model was used to analyze the regression equation. The focus of this study was the link between leverage and determinants of capital structure in the Kenyan mobile telecommunication industry.

3.5.1 Conceptual Model

The following conceptual model was adopted in the study to establish the determinants of capital structure in the Kenyan mobile telecommunication industry:

$LV_{it} = f(SIZ, AT, FG, PROF, EV)$……..…….(1)

Where

LV = Leverage/Capital Structure

SIZ = Firm Size

AT = Asset tangibility

FG= Firm Growth

PROF = Profitability

EV = Earnings Volatility

Leverage ratio: Leverage was measure as total debts and liabilities divided by the value of the total assets.

Profitability: Profitability was measured by dividing the earnings before interest, also known as EBIT, by the total assets.

Firm Growth: Growth, as given by; percentage change in Total Assets

Firm size: firm size was measured using log of total assets

Tangibility: Tangibility, as given by; Total fixed Assets divided by Total assets

Earnings Volatility: was measured using the total current assets divided by the total current liabilities.

3.5.2 Analytical Model

The following regression mode was used to perform panel data analysis

$LV= \beta_0 + \beta_1 SIZ + \beta_2 AT + \beta_3 FG + \beta_4 PROF + \beta_5 EV + \varepsilon$ ……..(2)

Correlation Coefficient (r) was established and used to quantity the direction and strength of the association between the study variable (Leverage) and each of the independent variables. Adjusted R squared was used to measure the level of variation in the dependent variable that can be explained by independent variables. In testing the significance level T-test was used.

3.5.3 Diagnostic Test

This study used regression analysis. The data was therefore being checked for violations of assumptions of normality and linearity, multicollinearity and heteroscedasticity. Normally

distributed data is done symmetrically around the Centre of all scores and is characterized by a bell shaped curve (Field, 2009). Linearity relationship was tested using R^2 and adjusted R^2 the most common methods to determine linearity relationship (Grissom & Kim, 2012).

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter provides the data findings on the determinants of capital structure in the Kenyan mobile telecommunication industry, in particular, section 4.2 covers the descriptive statistics which summarizes the data collected, in section 4.3 presents the estimated /empirical model for the study, section 4.4 presents the discussion of the study findings in relation to existing literature and section 4.5 covers the summary of the chapter.

4.2 Summary Statistics

In section 4.2 the study present the research finding on the descriptive statistic of the data collected.

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Leverage	32	1.08	1.62	1.4949	.34818
Firm size	32	.3	1.7	.956	.3008
Asset tangibility	32	.01	.34	.1151	.08743
Firm growth	32	.56	.97	.8782	.11784
Profitability	32	.02	.34	.1371	.08046
Earning volatility	32	.78	2.59	1.5596	.45603
Valid N (list wise)	32				

Source: Author Computation

From the data presented in table above, the study found that leverage had a mean of 1.4949, firm size showed an average of 0.956, asset tangibility has a mean of 0.1151, frim growth had an average of 0.8782, profitability had average of 0.1371 and earnings volatility had an average of 1.5596.

4.3 Empirical Model

A multiple regression analysis was conducted in this study to test the influence among predictor variables. The research used statistical package for social sciences (SPSS V 22) to code, enter and compute the measurements of the multiple regressions. In this section the study presents the research findings on the relationship between various independent variables on the regression model and capital structure of telecommunication firs in Kenya.

4.3.1 Model Goodness of Fit Test

Table 4.2: Model Goodness of Fit Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sign
1	.918[a]	.842	.804	.01210	.001

Source: Author Computation

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings, the value of adjusted R squared was 0.604 an indication that there was variation of 80.4% on capital structure of telecommunication firms due to changes in firm size, asset tangibility, firm growth, profitability and earning volatility at 95 percent level of confidence. This shows that 80.4% changes on capital structure of telecommunication firms could be as a result for cahnge in szie of the firm, asset tangibility, firm growth, profitability and earning volatility. R is the correlation coefficient which shows the relationship between the study variables. From the findings, the study found that there was a strong positive relationship between the study variables as shown by 0.918.

4.3.2 Results of Analysis of Variance

Table 4.3: Results of Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Residual	2.844	5	0.711	4.903	.001[b]
	Regression	10.875	26	0.145		
	Total	13.719	31			

Source: Author Computation

From the finding of the ANOVA table from data processed , which is the population parameters, had a significance level of 0.01 which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%. The calculated value was greater than the critical value (2.493<4.903) an indication that firm size, asset tangibility, firm growth, profitability and earning volatility significantly affects capital structure of telecommunication firms in Kenya. The significance value was less than 0.05, indicating that the model was statistically significant.

4.3.3 Results of Estimate Model

Table 4.4: Results of Estimate Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	**Constant**	**1.445**	**0.453**		**3.190**	**.002**
	Firm size	0.421	0.145	.297	2.903	.003
	Asset tangibility	0.486	0.159	.131	3.057	.004
	Firm growth	0.532	0.197	.014	2.701	.005
	Profitability	-0.499	0.174	-.212	-2.868	.001
	Earning volatility	-0.262	0.092	-.188	-3.757	.015

Source: Author Computation

The resulting regression model was;

$Y = 1.445 + 0.421 X_1 + 0.486 X_2 + 0.532 X_3 - 0.499 X_4 - 0.262 X_5$

From the above regression equation, it was revealed that holding firm size, asset tangibility, firm growth, profitability and earning volatility to a constant zero, leverage (capital structure) of telecommunication firms would be at 1.445. The results on table above reveal that firm size had a significant coefficient (B= 0.421, p value=0.003). It implies that firm size had positive significant effect capital structure) of telecommunication firms. The finding of the study on table above reveal that asset tangibility had a significant coefficient (B= 0.486, p value=0.004). It implies that asset tangibility had positive significant effect on capital structure of telecommunication firms. The findings revealed that firm growth had a significant coefficient (B= 0.532, p value=0.005). This implies that firm growth had positive significant effect on capital structure of telecommunication firms. The study finding revealed that profitability had a significant coefficient (B= 0.499, p value=0.001). This implies that profitability had negative significant effect on capital structure of telecommunication firms. The study finding further revealed that earning volatility had a significant coefficient (B= 0.262, p value=0.015). It implies that earning volatility had negative significant effect on capital structure of telecommunication firms.

4.4 Discussion

The study found that that 80.4% changes on capital structure of telecommunication firms could be accounted for by changes in firm size, asset tangibility, firm growth, profitability and earning volatility. The study also revealed that there was strong relation ship between capiatl structure and firm size, asset tangibility, firm growth, profitability and earning volatility. The study further revealed that firm size, asset tangibility, firm growth,

profitability and earning volatility significantly affects capital structure of telecommunication firms in Kenya.

From the finding the study found that firm size had positive significant effect capital structure) of telecommunication firms. Empirical evidence supports the existence of negative association between cost of bankruptcy as part of value of the firm and value of the firm itself (Ang *et al.*, 1982). The y further argues that as the company value decrease the direct bankruptcy cost apper to take large portion of its value. Large companies are more diversified and for this reason they face lower bankruptcy cost risk. (Titman & Wessels, 1988).

The study also revealed that asset tangibility had positive significant effect on capital structure of telecommunication firms. The study findings are in line with findings of Myers and Majluf (1984) suggest a positive association between the value of collateral of assets and firm capital structure. They argue information symmetries by the company may be reduced by the company selling off secured debt. Floating debt may be hard to outside investor where information asymmetry exits it. In the same note Scott (1977) has suggested that company may increase the share value by issuing protected debt.

The study established that firm growth had positive significant effect on capital structure of telecommunication firms. These findings disagree with the findings of Growth of the company may require funding which is above the internal funding to finance their investments, which result in to them using more of debt financing compared to equity

financing as postulated by Myers and Majluf's Pecking Order theory (1984). Deloof and Verschueren (1998) revealed a positive association between capital structure and growth.

The study found out that profitability had negative significant effect on capital structure of telecommunication firms.

As suggested by Myers and Majluf (1984), pecking order theory is key in the determination of association between capital structure and profitability of the company. According to Pecking order theory, company systematical follows a hierarchy in financing. Due to information asymmetry in the market, it is costly to float security with which outsider investor is unaware. This forces the company to find internal financing being cheaper option. Due to the fact that debt holder receive high and constant revenue from interest payment , which results to them having higher stake in company asset compared to the owners this lead to them having less information asymmetry as compared to owners. Hence when making decision on source of funds to finance their investment project companies prefer more of internal funds to debt and debt more than equity. Company with rich cash flows seems to suffer from the agency problem which was argued by Jensen (1986). Management sometimes gets their own benefits through creation of conflict of interest between the owners and the management. These results in disciplining the management by increasing debt to equity ratio, which seems to put a limit to usage or perquisites. This results to an inverse association between capital structure and financial performance. Titman and Wessels (1988) and Rajan and Zingales (1995) revealed an inverse association between capital structure and firms financial performance.

The study revealed that earning volatility had negative significant effect on capital structure of telecommunication firms. Tax advantage of debt is benefit not fully exploited by firms with high volatile earning. On the same note Titman and Wessels (1988) argues that there is a negative association between earning volatility and state of ideal debt level. Deloof and Verschueren (1998) in their study found an inverse relationship between capital structure and volatility in earnings. There is simultaneous increase in the company risk as the cost of dent level seems to rise (Schoubben & Hulle, 2004). Debt holders use the cost associated with bankruptcy, in their negotiation to protect themselves, which results to increase in the cost of debt. In line with argument of the pecking order financing hierarchy. Debt has a high cost, this force risky company to use internal financing rather than debt, these results to negative association between volatility in earning and company capital structure (Schoubben and Hulle, 2004).

4.5 Summary

This chapter has captured the study findings on the determinants of capital structure in the Kenyan mobile telecommunication industry; the chapter has presented the data in systematic manner from the descriptive statistics, empirical model for the study and discussion of the study findings in relation to existing literature.

From the findings the study found that changes on capital structure of telecommunication firms could be accounted for by changes in firm size, asset tangibility, firm growth, profitability and earning volatility. The study also revealed that there was strong relation ship between capiatl structure and firm size, asset tangibility, firm growth, profitability and earning volatility. The study found that firm size, asset tangibility and firm growth positively

influence the capital structure of telecommunication firms, whereas profitability and earning volatility were found to negatively affect the capital structure of telecommunication firms.

CHAPTER FIVE

SUMMARY AND CONCLUSION

5.1 Introduction

This chapter provides the summary of finding, conclusion and recommendations on determinants of capital structure in the Kenyan mobile telecommunication industry; in particular the chapter covers the section 5.2 covers the Summary of the Study, in section 5.3 chapter presents conclusion, section 5.4 presents the limitation of the study and section 5.5 presents the recommendations.

5.2 Summary of the Study

The objective of the study was to establish the determinants of capital structure in the Kenyan mobile telecommunication industry. The study adopted descriptive research design study in which data was gathered just once over the period 8 years from 2009 to 2015 for 4 telecommunication companies in Kenya. The study was facilitated by use of secondary data. Multiple regression analysis was applied to the data to establish the determinants of capital structure in the Kenyan mobile telecommunication industry. The study found that that 80.4% changes on capital structure of telecommunication firms could be accounted for by changes in firm size, asset tangibility, firm growth, profitability and earning volatility. The study also revealed that there was strong relation ship between capiatl structure and firm size, asset tangibility, firm growth, profitability and earning volatility. The study further revealed that firm size, asset tangibility, firm growth, profitability and earning volatility significantly affects capital structure of telecommunication firms in Kenya.

From the finding the study found that firm size had positive significant effect capital structure) of telecommunication firms. The study also revealed that asset tangibility had positive significant effect on capital structure of telecommunication firms. The study established that firm growth had positive significant effect on capital structure of telecommunication firms. The study found out that profitability had negative significant effect on capital structure of telecommunication firms. The study revealed that earning volatility had negative significant effect on capital structure of telecommunication firms. The study found that firm size, asset tangibility and firm growth positively influence the capital structure of telecommunication firms, whereas profitability and earning volatility were found to negatively affect the capital structure of telecommunication firms.

5.3 Conclusion

The study revealed that changes in firm size, asset tangibility, firm growth, profitability and earning volatility could determine the capital structure of telecommunication firms. Thus the study concludes that firm size, asset tangibility, firm growth, profitability and earning volatility are the determinant of capital structure of telecommunication firms in Kenya.

The study also revealed that there was strong relation ship between capiatl structure and firm size, asset tangibility, firm growth, profitability and earning volatility. The study found that firm size, asset tangibility and firm growth positively influence the capital structure of telecommunication firms, whereas profitability and earning volatility were found to negatively affect the capital structure of telecommunication firms.

5.4 Limitations of the Study

In attaining its objective the study was limited to four telecommunication firms in Kenya. Secondary data was collected from all the firm financial reports available. The study had a degree of limitation to precision of the data obtained from the secondary data source. The the data was verifiable as it came from the company publications; it nonetheless could still be prone to these shortcomings.

The study was limited to establishing the determinants of capital structure in the Kenyan mobile telecommunication industry. For this reason the non-telecommunication firms could not be incorporated in the study. The study was based on an eight years study period from the year 2009 to 2015. A longer duration of the study will have captured periods of various economic significances such as booms and recessions. This may have probably given a longer time focus hence given a broader dimension to the problem.

The study used static trade –off theory to model behaviour of Telecommunication firms in Kenya. This is a particular period model which adopts that company targets their leverage in such a way that if normal capital structure differs from the ideal leverage one then they promptly adjust their decision making behaviour to bring the capital structure back to the ideal level.

5.5 Recommendations for Further Research

From the findings and conclusion, the study recommends and in-depth study to be carried out on the relationship between leverage and other determinants of capital structure namely, this will help to allow more insight not only on the factors but on multi-variation among them.

Given the arguments of whether it is the trade-off theory, market timing theory or partial adjustment model of leverage that strongly influences leverage, it would be important to carry out a study with a bias to determining which of these factors is more superior or applicable in determining leverage in Kenyan firms. This will assist more knowledge on the strength of these theories in leverage determination.

In order to better understand bankruptcy issues, it would be interesting to carry out a study to determine the factors that lead to failure by firms to service their debts and ultimately leading to financial distress. This can be analyzed with a view of determining if the previous factors determining leverage had pointed to the need of increasing leverage in the first instance.

Based on the study limitations explained above, we recommend that future studies use dynamic trade-off model to study the capital structure. This is because practically, the factors affecting a firm's capital structure are likely to change over rather than being static. It is also important to conduct an analysis under dynamic setting so as to establish the speed of adjustment towards target leverage when firms are off target i.e. not operating at optimal level.

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APPENDICES

Appendix I: Data Collection Sheet

Year	Total Debt	Liabilities	Profits	Total Assets	Current Asset	Current Liabilities	Fixed Assets
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							