

**THE RELATIONSHIP BETWEEN CAPITAL STRUCTURE AND
FINANCIAL PERFORMANCE OF INSURANCE COMPANIES IN
KENYA**

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DECLARATION

This research project is my original work and has not been submitted for the award of a degree in any university or institution of higher learning.

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This project has been submitted for examination with my approval as a university supervisor

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DEDICATION

This paper is dedicated to my parents who made my academic dream a reality, to my wife for her support and encouragement, to my children to act as an inspiration and to all those who encouraged and supported me morally.

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First I thank the Almighty God for giving me an opportunity, strength and resources to undertake and achieve the MBA program and for all the blessing in my life.

It has been a long and challenging journey and the successful completion has been as a result of support received from many people. My special thanks to my employer for granting permission to carry out my studies.

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May the Almighty God bless you all.

ABSTRACT

Capital structure is a significant factor in corporate financial management and has a direct impact on financial performance of a firm. The financial decision plays an important role to finance managers who strive to maintain a capital structure that maximizes the shareholders wealth while minimizing the financial and business risk. The objective of this study was to determine the relationship between capital structure and financial performance of the insurance companies in Kenya. The multiple regression technique was used with return on assets as the dependent variable and financial leverage, log of total assets, growth, age of an insurance company (years since establishment), log of tangible asset and inflation as independent variables. The study analysed secondary data from 36 insurance companies for 5 years, from 2008 to 2012. The correlation coefficients and coefficient of determination were used to test whether the expected values of the quantitative variable within the predefined variable differed from each other. From the findings, the value of adjusted R^2 is 0.1859, an indication that there was variation of 18.59% on financial performance of insurance companies due to changes in the independent variables. The study also found out that financial leverage would impact the performance of a firm by a significant factor of 17.6% and 21.8% by its size. Age of a firm had weak positive effect of 0.6%. Further a negative relationship was observed between financial performance and growth, increased growth lead to a decrease in return on assets by an insignificant factor of 0.010. The research findings are useful to the finance managers who need to maintain an optimal capital structure, to the investors while choosing profitable insurance companies to make investment decision, to the policy holders on selecting insurance companies for risk management in addition the insurance industry regulator for the purpose of regulating the insurance industry.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	v
ABBREVIATIONS AND ACRONYMS	ix
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the Study	1
1.1.1 Capital Structure.....	2
1.1.2 Financial Performance.....	3
1.1.3 Capital Structure and Financial Performance.....	5
1.1.4 Insurance Companies in Kenya.....	7
1.2 Research Problem	8
1.3 Research Objective	10
1.4 Value of the Study	10
CHAPTER TWO	12
LITERATURE REVIEW	12
2.1 Introduction.....	12
2.2 Theoretical Framework.....	12
2.2.1 Pecking Order Theory	12
2.2.2 Static Trade-off Theory.....	13
2.2.3 Franco Modigliani and Merton Miller Theorem.....	15
2.3 Factors that Influence Capital Structure	17
2.4 Empirical Literature	19
2.5 Summary of Literature Review.....	23
CHAPTER THREE	24
RESEARCH METHODOLOGY	24
3.1 Introduction.....	24
3.2 Research Design.....	24
3.3 Population of the Study.....	24
3.4 Sample Design	24
3.5 Data Collection	25
3.6 Data Analysis.....	25

CHAPTER FOUR	26
DATA ANALYSIS AND INTERPRETATION	27
4.1 Introduction.....	27
4.2 Descriptive Statistics.....	27
4.3 Correlation Analysis	28
4.4 Regression Analysis.....	29
4.4.1 Regression Output.....	29
4.4.2 Statistical Significance of the Model	30
4.4.3 Estimated Model Coefficients.....	30
4.5 Chapter Conclusion.....	32
CHAPTER FIVE	33
SUMMARY CONCLUSION AND RECOMMENDATIONS	33
5.1 Introduction.....	33
5.2 Summary of Findings.....	33
5.3 Conclusion	34
5.4 Recommendations.....	35
5.5 Limitations of the Study.....	36
5.6 Suggestion for Further Studies.....	36
REFERENCES	38
APPENDICES	42

LIST OF TABLES

Table 3.1 Operationalization of Variables	26
Table 4.2.1 Descriptive Statistics	27
Table 4.3.1 Correlation Analysis	28
Table 4.4.1 Summary Regression Output	29
Table 4.4.2 Analysis of Variance (ANOVA)	30
Table 4.4.3 Model Coefficients	30

ABBREVIATIONS AND ACRONYMS

AKI	Association of Kenya Insurers
CMA	Capital Market Authority
GDP	Gross Domestic Product
IRA	Insurance Regulatory Authority
KPI	Key Performance Indicators
MM	Modigliani and Miller
M-Pesa	Mobile banking product by Safaricom
NSE	Nairobi Securities Exchange
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment
SACCOs	Savings and Credit Co-operatives
SMEs	Small and Medium Sized Enterprises
UK	United Kingdom
US	United States of America

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Capital structure literature has been well documented since the landmark seminal paper by Modigliani and Miller (1958) and continues to generate great interest and contribute widely in the finance field. Finance researchers, scholars and academic studies have recognized the significance of capital structure in managerial decision with a direct impact to shareholders (Pandey, 2010). Modigliani and Miller (1958) outlined that capital structure decisions are irrelevant to determine value of a firm, other studies thereafter have showed that a firm can adjust its value and improve its future prospects and performance by altering the debt to equity ratio thereby obtaining a targeted capital structure that is optimal (Brealey, Myers & Marcus, 2007).

Academicians and financial researchers depicts that capital structure is a significant factor in corporate financial management and has a direct impact on financial performance of a firm. Ligon (1997) outlined that capital structure is important to any business and contributes to the need to maximize returns and increase owner's value and with optimal capital structure the firm's performance is enhanced. Many authors recognize capital structure as a significant factor that influences financial managerial decisions with direct impact on shareholders return and risk (Lamer, 2008).

Financial performance measures are intended to assess the efficiency and effectiveness through which firms turn out resources available to create wealth for the shareholders (Khan, 2004). Financial statement analysis plays an important role to help appraise the financial performance of a firm by extracting useful ratio which help management in identifying deficiencies and take corrective action to improve performance (Mudida

and Ngene, 2010). Financial performance measures results of firm's policies and operations in terms of the return on investment (ROI) and return on assets (ROA) or return on equity (ROE).

Insurance sector is a key pillar to the economy of Kenya as a developing economy. The study intended to examine capital structure and financial performance of insurance sector which is largely under researched in Kenya, as a developing country and provide literature on the subject.

1.1.1 Capital Structure

Capital structure refers to the mix of different types of funds a firm uses to finance its activities through combination of debt, equity or hybrid securities and describes the relationship of finance sources to operations (McGuigan ,Kretlow and Moyer, 2009 and Pandey, 2010). Therefore, capital structure is the specific mixture of long term debt and equity a firm uses to finance its operations and guides on the best mix that is optimal and contributes to the risk and value of the firm (Myers, 1984 and Laher, 2008).

A fundamental objective of a firm or finance manager is to find an optimal capital structure that leads to the lowest overall cost of capital and subsequently contributes to high firm value. Mudida and Ngene (2010) and Mcguigan *et al.*, (2009) argued that capital structure is important to a firm and there exists a capital structure at which cost of capital is minimized and it is also the point that firm value is also maximized and generally referred as optimal capital structure. Myers (1984) supported this, that firms can issue equity or debt capital issue warrants, convertible bonds and hybrid securities with an attempt to find the best combination which maximises the firm value.

Determinants of capital structure which also applies to the insurance companies are postulated to include profitability, growth, tax, and asset structure, size of the firm and age of the firm. Firms with high profitability use little debt to finance their operations (Brigham and Gapenski, 1990). Highly growing firms tend to have a high debt levels from external sources to finance the growth (Myers, 1984 and Anyango, 2011). High asset levels which are tangible can support high debt levels when pledged as collateral (Titman and Wessels, 1988). The capital choice on the level to settle at between debt and equity therefore will be determined by the level of risk exposure to its operations and financing alternatives (Brigham & Ehrhardt, 2007). Firm size is a determinant of capital structure, a notion supported by Anyango (2011) that large firms tend to operate with more leverage. Other macroeconomic factors like inflation, GDP, and prevailing interest rates affect capital structure decisions (Grier, 2007; Mutuku, 2009 and Kuria, 2010).

Capital structure decisions and choices of insurance companies should be properly managed to ensure that it's optimal and supports future growth as well as create value for the owners.

1.1.2 Financial Performance

Financial performance measures are intended to assess the efficiency and effectiveness through which firms turn out resources available to create wealth for the shareholders (Khan, 2004). Klammer (1973) outlined financial performance to be results obtained from revenues and expenses analysis as an indicator of financial health status or measure of profitability.

Financial statement analysis plays an important role to help appraise the financial performance of a firm by extracting useful ratio which help management in identifying

deficiencies and take corrective action to improve performance (Mudida and Ngene, 2010). According to McLaney (2009) and Nobes and Parker (2008) a way of understanding financial performance of a firm is to gather insight on business performance, it is useful to calculate ratios to measure performance trend of a firm over period and industrial comparison against other firms. Mudida and Ngene (2010); Pandey (2010) and Laher (2008) supported benchmarking as a useful tool in ratio analysis to identifying the financial strengths and weaknesses of a firm can be accomplished through trend analysis of firm ratios over a period of time or industrial analysis by comparing results to nearest competitor within the industry.

Financial performance measures of an insurance company is defined as the capacity to sustain profitability, grow new insurance products, growth of premiums, high clientele retention and other enhancement of performance that create value for the owners (Parmenter, 2011 and Murley, 1997). Wipf and Garand, (2008) notes that Key Performance Indicators (KPI) in insurance companies include; Product Value Ratios that indicates the insurance company's performance in limiting its net commissions paid, underwriting expenses and overheads while attaining a given level of premium, product awareness and satisfaction as indicators that signal the awareness and the competitive and service quality Indicators that shows the responsive in service and how well the insured understand the product. Kaplan and Norton (1992) argues that performance can also be assessed on a balanced scorecard of critical success factors through four perspectives financial, customers, internal business processes and learning and growth.

Therefore, financial performance is a major factor in the insurance industry as a key sector that contributes greatly to the Kenyan economy. After liberalisation of Kenyan

insurance sector in 1990s, Insurance Regulatory Authority (IRA) was established under Insurance Act (CAP) to regulate and supervise insurance industry through changes in capital requirements and disclosure policies. This has also prompted review and adoption of performance measures that form major part of insurance decisions in terms of the return on investment (ROI) and return on assets (ROA) or return on equity (ROE) (Parmenter, 2011).

1.1.3 Capital Structure and Financial Performance

The role of insurance companies in an economy cannot be overlooked. Insurance industry plays an important role to facilitate economic growth and risk management to protect entities (Kyereboah, 2007 and Wipf & Garand, 2008). It is expected that change in capital structure decisions by an insurance company will affect its performance, a notion supported by Alawwad (2013) that capital structure contributes greatly to financial performance, therefore, the need to provide an explanation on the impact of the debt on firm's performance.

Capital structure decisions attracts numerous interests in corporate finance from many scholars and researchers, mainly to prove or disapprove the earlier theoretical backgrounds such as the pecking order, Modigliani and Miller propositions and the static trade-off theories and their relationship with firms' performance. Studies have been carried out to probe these propositions, a study by Pouraghajan, Malekian, Emamgholipour, Lotfollahpour, & Bagheri (2012) and Gosh (2012) indicate that there is a strong negative and significant relationship between debt ratio and performance of firms, that is, companies that have a high debt ratio will have a negative impact on firm performance and value.

The pecking order theory postulated by Myer (1984) highlights the views explaining the debt policy and performance relationship, that, firms prefer internal finance and the target dividend pay-out ratios is inclined to firms' investment opportunities and, unpredictable fluctuations in profitability and investment opportunities mean that internally generated cash flow can be more expensive. Ghosh (2012) and Gachoki (2005) tested this theory and found that no relationship exist between debt and internal funds deficit results not consistent with pecking order theory. Other studies showed a positive relationship on capital structure choice that finance managers follows a hierarchal order when making capital structure decision and supporting the pecking order theory (Baskin' 1989; Hewledge and Liang, 1996, Frank and Goyal, 2003 and Kahugu ,2009).

The static trade-off theory argues that managers seek to trade off tax savings on debt against cost of debt. Many studies show a strong significant relationship that the level of adjustment is relative to the cost of debt and many managers revise their capital structure to maintain an optimal balance of cost and debt (Graham and Harvey, 2001; De Jong, *et al.*, 2011; Hovakimian, Opler and Titman, 2011 and Dang, 2013).

Empirical evidence suggests that profitability, firm growth, asset structure size and age of the firm are key determinants that influence capital structure. Titman and Wessels (1988) and Baskin (1989) found a negative relationship between profitability and leverage. Munene (2006); Kuria (2010) and Omondi (1996) found a positive relationship that profitable firms tend to borrow more. Dang (2013) in his study on UK, France and Germany companies found that leverage have a negative effect on performance. Studies on growth of the firm showed a positive relationship on leverage (Anyango, 2011 and Pouraghajan *et al.*, 2012). Titman and Wessels (1988) found

positive relationship between debt and firm size; that large firms are more diversified and tolerate high debt levels. Mutuku (2009) analysed macroeconomic variable GDP and found a positive and significant relationship exists; that GDP growth has positive influence on debt.

Amid the vast and long-time research on capital structure and its connection to firm's performance, so far there is no universal theory or explanation reached that could intensely explain the optimum debt/equity mix or the inherent relationship between capital structure and the firm performance. The existing empirical studies in overall suggest that firms decisions on capital choice and its relationship to performance thereof is dependent on size, industry and even the operating environment (Agrawal & Knoeber, 1996; Berger & Bonaccorsi, 2006; Chaganti & Damanpour, 1991; Puntaiier, 2010).

1.1.4 Insurance Companies in Kenya

The Insurance Industry in Kenya is regulated by the Insurance Regulatory Authority (IRA) under Insurance Act, CAP 487. The Insurance Regulatory Authority (IRA) was established to regulate, supervise and develop the insurance industry. According to IRA 2014 statistics, Kenya has 49 licenced insurance companies and 84 Insurance Brokers. According to Kenneth (2000) the Kenyan insurance market is ranked fourth in Africa and with the full liberalisation with many foreign insurance companies operating in Kenya. According to the Association of Kenyan Insurers (AKI), the Kenyan Insurance industry has numerous growth opportunities projecting premium rise from Kes. 90bn in 2011 to Kes. 200bn by 2015, a growth of 22.22%.

The minimum capital requirements as described in the insurance Act is paid up share capital for Long term insurance business of Kshs. 150 million , General Insurance

business Kshs. 300 million and Reinsurance business Ksh. 800 million, details of the shareholders and shareholding structure of the company, a detailed statement of assets and liabilities in Kenya at the date of application, Central Bank of Kenya certificate specifying the amounts and details of deposits under section 32 of the Insurance Act (equivalent to 5% of the total admitted assets) among other requirements and conditions. Borrowings that affect the capital structure like issue of corporate bond and debt instruments requires an authority from Capital Market Authority (CMA)

A deepening corporate bond market in Kenya provide insurance companies with incentives that encourage them to make capital structure (borrowing) decisions in order to expand their business, open more branches which at the end lead to performance improvement. In Kenya, Britam was granted authority by CMA in June 2014 to issue Kes. 6 Billion Corporate bond to finance local and regional expansion, property investments as well as fund other strategic incentives. On the same note, CMA approved UAP to issue Kes 2 Billion bond in July 2014 towards geographic expansion, investment in property projects, provide additional capital to enhance capacity in existing insurance businesses as well create other strategic ventures that will help the firm to record monumental growth in revenues and profitability. These bonds leads to increased financial leverage that directly impacts on capital structure decision and performance.

1.2 Research Problem

Capital structure decisions have attracted numerous interests in corporate finance from many scholars and researchers, mainly due to its importance in determining financial performance of many firms. Studies in the US companies found that debt ratio is

determined by asset levels, profitability, growth, products, and industry among other factors (Titman and Wessels, 1988).

Further research carried out by Jensen and Meckling (1976) demonstrated that amount of debt in a firm's capital structure affects the agency conflict between the shareholders and the managers and impacts on the management investment decision thereby contributing to the amount of leverage in the capital affecting the firm's financial performance and subsequent the value. Several researchers have conducted several studies that examine the relationship between financial leverage and firm's performance and empirical evidence from the studies produce contradicting and mixed results.

Previous study between 1999 -2014, on impact of profitability on capital structure on companies quoted at NSE revealed that there was a weak positive relationship between profitability and capital structure (Munene, 2006). Kamau (2010) in his research outlined that debt to equity ratio accounts for a small percentage in financial performance and there could be other factors like efficiency that affect performance. Anyango (2011) carried out a study on adjustment towards capital structure on the firms listed in NSE for 12 years from 1999 to 2010 and concluded that managers employ targeted behaviour that lead to adjustment process in the firm use of debt, a further observation was that firm use of debt is not only related to profitability but other factors like growth opportunities, level of firms assets among were found to contributes debt level and affect the financial performance.

The literature done by other researchers on capital structure decisions and their effect on financial performance has focused more on developed markets (like USA and UK); little is empirically found about developing economies like Kenya, where the capital

markets are less efficient and suffers from high level of information asymmetry than capital markets in developed countries. In the Kenyan context, studies on the relationship between capital structure and financial performance have emphasized more on sectors such as banking, parastatals, firms listed at NSE and microfinance institutions. The insurance sector in Kenya has been largely under-researched and ignored in this context.

It is on this note that the researcher purposed to undertake this study to test and examine the relationship between capital structure and financial performance of insurance sector in Kenya, as an example of a developing country. The researcher sought to determine whether the theories of capital structure are applicable in the insurance sector by answering the following questions; is there a relationship between capital structure and financial performance? and do capital structure theories hold in the insurance industry?.

1.3 Research Objective

The objective of this study was to establish the relationship between capital structure and financial performance of insurance companies in Kenya.

1.4 Value of the Study

The study is beneficial to;

The theory and literature; the study will greatly contribute to the literature on capital structure and financial performance of insurance sector which is largely under researched in Kenya, as an example of a developing country.

Finance managers in the insurance industry who will have a better understanding on the impact of capital structure and financial performance and help them contribute greatly in the insurance sector and economy of Kenya.

Scholars and academicians, the study adds value to research and body of knowledge on the area of capital structure and financial performance. Future researchers will use this study as reference for further studies, help stimulate future research on the topic and suggest future research gaps that can be explored.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed the documented theories and studies by other researchers in the field of capital structure that provided foundation to the study. The specific area covered provided basis of developing an understanding and established appropriate scope in aligning objectives to the existing theories.

2.2 Theoretical Framework

Theoretical review focused on theories that explain the capital structure. Empirical literature reviews concentrated at studies that have been done on capital structure to enrich finance literature and provide the research gap.

2.2.1 Pecking Order Theory

Pecking order Theory was first suggested by Donaldson in 1961 and later popularized in 1984 by Stewart Myers and Nicola Majluf, who argued that when a firm is planning to finance its investments, it has a well-defined order of preference with respect to the sources of finance available. The first preference is the use of internal finance or retained earnings, then, borrowings by use of debt: secured debt followed by unsecured debt and last option is issue shares (Myers and Majluf, 1984 and Watson and Head, 2007). Pecking order theory implies that firms fund project and activities in a specific order that considers cost of acquiring capital (Welch, 2009). Most organisations use internal sources to finance majority of the investments followed by external debt aggregating a pattern consistent with pecking order Theory (Brealey, Myers and Marcus, 2007). Pandey (2010) presented a practical approach to this theory, that it is based on assertion that managers have advantage to information than investors which

they use to their advantage; they use debt when they are positive about future prospects, use capital when they are not sure or in doubt. Since there is not a well-defined debt equity target there are two kinds of equity; internal and external, former at the top and latter at the bottom. Myers (1984) suggested that firms prefer to use retained earnings as the main source of funds followed by debt and last comes equity financing recognising pecking order theory.

According to Ryan (2007) contracting cost and information signalling helps create a pecking order of attractiveness to a firm when choosing from different sources of finance. Myers and Majluf (1984) developed a signalling model that considers investment and financing decision and in their contribution they proved that investors are less informed than firm insiders who have advantage of more information and this affects the market value of the firm or its shares may be mispriced. Helwege and Liang (1996) tested the pecking order hypothesis for various firms and they found a consistent with this hypothesis that firms with surplus funds use more of internal sources and on the other hand firms that have experienced cash deficit when they use debt from external market. Frank and Goyal (2003) carried out a study from 1971 – 1998 and the findings do not support the pecking order theory.

2.2.2 Static Trade-off Theory

This theory was put across by Stewart Myers in 1984 who argued that managers seek to trade off the tax savings on debt against the cost of debt. Tax represents an opportunity, through the tax shield benefit, that is counterbalanced by the increasing return required to compensate for default risk. The two effects tax shield and risk creates a trade-off, a point where cost of capital is optimized (Ryan, 2007). The firm borrows up to the point where the tax benefit from the investment exactly equals the cost or risk

that comes from the increased profitability. This theory assumes that the firm is fixed in terms of its assets and operations and considers only possible changes in debt equity ratio. Graham and Harvey (2001) surveyed chief finance officers found evidence of targeted debt equity ratio for most firms.

McGuigan *et al.* (2007) argued that the trade-off theory allows bankruptcy cost and agency cost to exist. This creates an advantage to financing with debt that arises from the tax shield benefits and there is also cost of financing with debt; the bankruptcy costs and the financial distress costs of debt. Debt provides a tax shield but increases bankruptcy risk, bankruptcy cost and tax shield is creases with debt level. Pandey (2010) showed that financial distress affects the value of the firm and that the capital structure is determined as a result of tax benefit and cost of financial distress, the optimum point is reached when the marginal present value of tax benefit is equal to present value of financial cost distress. Ryan (2007) narrated that management should use debt to the extent that shareholders wealth is maximised and in overall the agency cost reduces the tax advantage of debt.

Some studies support the trade-off on the fact that firms have target capital structure which managers adjust their debt ratios. The level of adjustment is relative to the cost of debt and managers revise their capital structure overtime to maintain an optimal (trade-off) balance of cost and benefit (Hovakimian, Opler and Titman, 2011). Dang (2013) tested the static trade-off theory for firms in Germany, France and the UK using error correction models, the results indicated that the theory explains firms' capital structure decisions. A similar study by (De Jong, Verbeek, & Verwijmeren, 2011) on US firms yielded similar results.

2.2.3 Franco Modigliani and Merton Miller Theorem

In 1958, the two financial researchers developed Modigliani and Miller contributed widely to capital structure by Proposition I Theorem showed that under certain restrictive assumptions the value of the firm is unaffected by the debt. Later they developed Proposition II that relaxed the assumptions under Proposition I and further considered corporate taxes. In 1977 Miller advanced the two propositions and developed a model that recognized personal taxes.

Proposition I also known as net operating income, they argued that the capital structure is irrelevant in determining the value of the firm. Capital structure decisions do not affect the value of the firm since firm value is independent of its leverage there is no advantage of using debt since there are no corporate taxes, the weighted average cost of capital of a levered firm and unlevered firm is independent of the capital structure, the cost of equity increases as the gearing increases and the cost of debt remain unchanged as level of gearing increases hence irrelevance of capital structure decision on the value of the firm. Under restrictive assumptions of a perfect market, tax free economy, no transaction costs and homogeneous expectation of investors, capital structure is irrelevant in determining the firm value. According to Modigliani and Miller if the assumptions do not hold, the arbitrage process shall take place where investors take advantage of the market imperfections and opt to sell the shares in the overvalued firms and buy the shares in the undervalued firms resulting to arbitrage gain realized. As investors take advantage of arbitrage opportunities, the market will reach equilibrium when the prices of overvalued shares fall and the undervalued shares rise (Ryan, 2007; Watson and Head, 2007; Welch, 2009 & Pandey, 2010).

Modigliani and Miller (1958) supported their argument that capital structure is irrelevant in determining the value of the firm by applying the arbitrage process to two companies identical in every respect except for their leverage levels have equal cost of capital and therefore should not have different market values (Welch, 2009). Studies carried out thereafter concludes that these assumptions do not hold and have led to researchers to rationalize the MM proposition I and its underlying assumptions to prove that capital structure affects firm value and performance. Watson and Head (2007) concludes that the theory had serious flaws based on their restrictive assumptions. Firstly, the assumption that individuals and companies can borrow at the same rate can be challenged, since borrowing by individuals are riskier and costly. Secondly, presence of no transaction cost is untrue since borrowing cost exists and eliminate risk free profit thus affecting arbitrage gain, Thirdly, investors have a variant in expectation and finally a perfect market do not exist.

Later they developed a second paper, Proposition II also known as net income approach that relaxed the unrealistic assumptions under proposition I (Net operating income) and recognized that corporate tax exists and tax shield benefit associated with debt capital exists. They concluded that as companies take more debt, they shield more of their profit from corporation tax. They further argued that the value of a levered firm will always be higher than that of unlevered by an amount equal to the interest on tax shield (Watson and Head, 2007; Pandey, 2010 and Welch, 2009).

In 1977 Merton Miller extended the proposition I and II and introduced the personal taxes and its effect to the value of the firm. Miller developed a model that incorporates gearing levels, corporation taxation, personal taxation on debt and equity returns and amount of debt and equity available to investors. He argued that investors choose

investment in companies that are in line with their personal taxation preference, considering company's capital structure that is debt and equity levels. Investors who pay income tax will be inclined to invest in equity to take advantage of capital gain tax allowance avoiding debt (Welch, 2009). US and UK have changed their tax regime to ensure that minimal difference in personal tax treatment into capital structure; this however does not eliminate corporation tax associated with increased gearing (Watson and Head, 2007).

2.3 Factors that Influence Capital Structure

Capital structure determinants includes include profitability, growth, tax, asset structure, size of the firm and some macroeconomic factors like inflation, GDP affects, prevailing interest rates affect capital structure decisions as explained below;

2.3.1 Profitability

Most firms with high rates of return; profitability use little debt to finance their operations (Brigham and Gapenski, 1990). A notion supported by Myers (1984) that highly profitable firms do not require debt financing instead they use retained earnings a behaviour consistent with pecking order theory. On the contrary, Omondi (1996) found out that most profitable firms in Kenya tend to borrow more, since high profits serve as incentive for more investments. Therefore many firms in Kenya do not follow pecking order theory. A relationship between gearing levels and profitability was examined by Baskin (1989) and found a significant negative relationship exist contradicting existence of optimal capital structure. Munene (2006) and Anyango (2011) asserts that high profits means ability to meet debt payment out of relative high cash flows.

2.3.2 Growth

Highly growing firms tend to have a high debt levels from external sources to finance the growth. According to Myers (1984), firms with high future growth opportunities should use more equity financing, since a higher leveraged company is more likely to venture into profitable investment opportunities. Anyango (2011) argued that more attractive growth opportunities means prospective future that a firm may use to affect its leverage or level of borrowings.

2.3.3 Tax

Corporate tax rates are endogenous to debt policy, if a company issues debt it reduces taxable income which in turn can reduce its tax rate hence companies may prefer to use more of debt if a company's tax rate is high resulting to reduction in its marginal tax rate (Graham, 2006). The views are similar to the previous work by Modigliani and Miller that is introduction of tax deductibility of interest into the framework indicated distinct advantage over financing with stock.

2.3.4 Asset Structure

The extent to which a firm has high asset levels which are tangible results in firms having high debt levels since high assets can support high debt levels when pledged as collateral (Titman and Wessels, 1988). Previous studies carried out provide empirical evidence of positive relationship between debt and asset levels of a firm. Firms holding high levels of tangible assets tend to borrow more (Myers, 1984 and Brealey *et al.*, 2007).

2.3.5 Risk

Capital structure components are exposed to financial risk which results from using financing alternatives with fixed periodic payments and business risks associated with firm's operations. The capital choice on the level to settle at between debt and equity

therefore will be determined by the level of risk exposure to its operations and financing alternatives (Brigham & Ehrhardt, 2007).

2.3.6 Size

Firm size is an element of capital structure, Anyango (2011) narrates that large firms tend to operate with more leverage. Titman and Wessels (1988), notice that large firms are more diversified and are able to tolerate high debt ratio. Kamau (2010) observes that a high debt ratio exists in small firms than large ones suggesting that small firms are more leveraged than large firms. This suggests that large firms have high debt levels than small firms, a study that contradicts pecking order theory (Anyango, 2011).

2.3.7 Macroeconomic Variables

Macroeconomic factors tend to influence capital structure in different ways and affect the optimal capital structure. Mutuku (2009) in his analysis of macroeconomic influences on corporate capital structure of listed firms in Kenya, concluded that interest rates measured by treasury bills have positive influence on debt levels, general change in inflation rates have little impact on long-term debt and growth in GDP tends to cause firms to use more long term debt than short term. Kuria (2010) also recommended that macroeconomic should be included in future research factors.

2.4 Empirical Literature

Studies outside Africa report mixed findings across the countries under study and majority of the findings are dependent on country specific; For example a panel data analysis by Krishnan & Moyer (1997) on 81 corporations from Hong Kong, Malaysia, Singapore, and Korea found out that, both capital structure and financial performance are dependent on the country of origin, specifically higher returns on Hong Kong firms depended on equity invested.

Phillips & Sipahioglu (2004) tested the Modigliani and Miller's (1958) capital structure irrelevancy theorem on UK quoted firms using regression model, the results supported the theorem that there is no significant relationship between the level of debt in the capital structure and financial performance. A similar study on 14 other European countries selected reported conflicting results; the findings suggested that capital structure influences financial performance of companies. Additionally it was found that the capital structures across the firms was influenced by different cultures, (Gleason, Mathur, & Mathur, 2000). The findings were consistent with the study by (Pouraghajan, *et al.*, 2012) using panel data of companies listed in the Tehran stock Exchange. Additionally, Alawwad (2013) examined the impact of capital structure choice on firms' performance for companies listed on the Saudi Arabia Stock Exchange. The findings revealed that high leverage has a negative impact on the performance of the listed firms. Also Tudose (2012) employing a three-pronged approach, theoretical, conceptual and empirical explored the link between debt policy and firm performance basing on the static trade-off theory, agency cost theory and pecking order theory and reported mixed findings both in support and against.

From the African context, Abor (2007) examined the effect of debt policy on the financial performance of SMEs in Ghana and South Africa using panel data analysis, the results revealed that financial performance of SMEs is influenced by the choice of the capital structure but not exclusively. Specifically it was found that long term and debt ratios affect performance negatively. Another study by (Kyereboah-Coleman, 2007) analysing Ghanaian companies for the period (1995-2004) using the same methodology reported that most microfinance institutions finance their operations with long-term debt and that highly leveraged institutions perform better.

The majority of the Kenyan studies mainly seek to establish the determinants of capital structure, and have failed to establish a clear link between financial performance and capital structure. Omondi (1996) using regression model analysed the relationship of capital structure and variables that have been hypothesized to influence capital structure and concluded that growth, asset structure, and turnover and age are determinants of the capital structure. A further study by Odinga (2003) on capital structure on companies quoted at NSE added that profitability and non-debt tax shield as contributing factors in determining leverage.

Gachoki (2005) tested pecking order theory, using Shym-sunder and Myers model and found that the theory failed to adequately explain capital structure choice for the firms quoted at NSE between 1988 and 2003, and also found that no relationship exists between internal financial deficits and new debt issued results which are not consistent with pecking order theory. Kahugu (2009) did a study on capital structure choice and analysed using regression analysis: views and practices of financial managers of companies listed at NSE and concluded that finance manager's follows a finance decision criteria or hierarchy supporting pecking order theory than adhere to target capital structure and from time to time, they make flexible capital decisions to match circumstances like growth and opportunities supporting trade off theory. Mbugua (2010) applied regression analysis in his study on pecking order Theory and Static trade off theory revealed that a positive relationship exists between debt and internal funds deficiency supporting pecking order theory and internal funds deficiency was significant in explaining debt variations in line with static trade off theory.

Mutuku (2009) in his analysis of macro-economic influences on capital structure of companies listed companies in Kenya using multiple linear regression, concluded that

GDP growth rate has a positive influence on debt, inflation has a negative influence on debt and interest rates measured by the treasury bills has positive effect on long term debt ratio and negative influence on short term debt ratio. Anyango (2011) on her study, adjustment towards capital structure by firms listed at NSE revealed that profitability exerts negative influence on firms capital structure decisions supporting pecking order theory hypothesis and further examination of the firm size revealed a positive relationship, a notion that supports static trade off theory. Sang (2011) carried out the study on the effect of change in capital structure on financial performance of SACCOs, in Nairobi using regression model and concluded that changes in retained earnings affects leverage that is an increase in retained earnings leads to decrease in leverage and vice versa a fact also supported by Kuria (2010) who concluded that profitability is a key determinant of capital structure.

Kuria (2010) analysed seven years (2003 – 2009) data of listed firms in NSE using multiple regression and correlational analysis asserts profitability, have a significant relationship with financial leverage, that is profitable firms do not often finance their investments from debt source but use retained earnings supporting pecking order theory. Size of a firm and asset structure among listed companies maintains high leverage ratios supporting static trade off theory. She recommends that further studies on capital structure be carried out on sector like insurance, banking, broadcasting and telecommunication. Boro (2013) in his study on effect of capital structure on financial performance of banks in Kenya, using regression model that capital structure have a relationship with financial performance of commercial banks though negligible and concludes that there exists other major factors that affect financial performance.

2.5 Summary of Literature Review

Capital structure theories have been well documented since the landmark seminal paper by Modigliani and Miller (1958) and continue to generate interest in the finance literature. These theories have been criticized and supported by many scholars and provide mixed results on the various studies carried out as presented in the empirical review.

Studies on the relationship between capital structure and performance of various firms in different industries had concentrated more on developed economies; little had been done on the firms in emerging and developing economies. The existing literature on capital structure in developing industries such as Kenya fail to analyse the link between capital structure and performance on firms and rather have focused more on capital structure and its determinants. Studies outside Africa report mixed findings across the countries under study. For example a panel data analysis by (Krishnan & Moyer, 1997) on 81 corporations from Hong Kong, Malaysia, Singapore, and Korea found out that, both capital structure and financial performance are dependent on the country of origin, specifically higher returns on Hong Kong firms depended on equity invested.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter reviewed the methodology used in gathering data, analysing data, and reporting the results. It includes a research design, target population, sampling technique, data collection instruments, study reliability and validity, data collection procedures and data analysis techniques.

3.2 Research Design

The study adopted descriptive design aimed at establishing the relationship between the capital structure and financial performance of insurance companies. Survey design enabled the researcher generalize the findings of the study on insurance companies registered with Insurance Regulatory Authority (IRA).

3.3 Population of the Study

Mugenda and Mugenda (2003) defined population as the entire group of events or objects that have a common observable characteristic that one wish to make some inferences. There were 49 registered insurance companies registered in Kenya by IRA as at March 2014, 46 offering general and life insurance and 3 providing reinsurance. Therefore, the target population of the study was from 46 insurance companies.

3.4 Sample Design

A sample design is a definite plan for obtaining a sample from a given population. (Kothari, 2004). The study employed purposive sampling, to obtain samples that offered meaningful answers to the research objectives and questions (Bryman & Bell, 2011). The insurance companies with the following anomalies were eliminated: insurance companies which did not provide 5 year data under the period of study and

insurance companies which failed to meet AKI and IRA requirements within the study period. Only 36 qualified for the study after elimination and analysed for 5 years from year 2008 to 2012.

3.5 Data Collection

The study used secondary data of insurance companies from published financial statements for a period of 5 years covering year 2008- 2012. Financial statements provided quantitative data that was used in the analysis of dependent and independent variables under the study. Data was collected from published financial statements to specifically outline key variables of the study.

3.6 Data Analysis

The data collected was analysed using MS Excel and EViews Version 7 software. Multiple regression analysis and correlation analysis was used to predict and explain the nature and significance of relationship between dependent (explanatory) and independent (predictor) variables.

The regression model comprised Return on Assets (**ROA**) as the dependent variable measured by Net Income divided by Total Assets. The independent variables include financial leverage (**FL**), Firm Size (**SIZ**), Growth (**GTH**), Age (**AG**), and Inflation (**INF**).

$$ROA = \alpha_0 + \beta_1 FL + \beta_2 SIZ + \beta_3 GTH + \beta_4 AG + \beta_5 INF + \epsilon$$

Where:

FL = Financial leverage ratio

SIZ = Log of total assets

GTH= Growth - Log of change in tangible assets

AG = Number of years since establishment

INF = Inflation rate

ϵ = Error term

The model was to test whether the independent variables were capable of predicting relationship between capital structure and financial performance. All factors were calculated on annual basis.

Table 3.1 Operationalization of Variables

Variable	Type	Operationalization	Measurement
Return on Assets (ROA)	Dependent	$\frac{\text{Net Income}}{\text{Total Assets}}$	Quantitative Annual Financial data
Financial Leverage	Independent	$\frac{\text{Total Debt}}{\text{Total Equity}}$	Debt and Equity Company annual reported data
Size	Independent	Log of Total Assets	Company annual reported data on total assets
Growth	Independent	change in the natural logarithm of total assets of the company	Company annual reported data on total assets
Age	Independent	Number of years since establishment	Years
Inflation	Independent	CBK calculated Inflation rates	Annual rates

(Source: Author, 2014)

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the research findings on the relationship between capital structure and financial performance of insurance companies in Kenya. The output analysis was carried out for a period of 5 years from year 2008 to 2012. Regression analysis was used in the data analysis.

4.2 Descriptive Statistics

This section discusses the descriptive statistics of the data analysed for the five year duration. The descriptive statistics for the both dependent variable (ROA) and the five independent variables show the results indicated in the summarized in the table below;

Table 4.2.1 Descriptive Statistics

	<i>ROA</i>	<i>FL</i>	<i>SIZ</i>	<i>GTH</i>	<i>AGE</i>	<i>INF</i>
Mean	0.4744	0.8637	6.4186	0.6761	35.6556	10.3489
Standard Error	0.0435	0.0512	0.0362	0.3182	1.7689	0.2519
Median	0.3277	0.6031	6.3394	0.1520	31.0000	10.2800
Mode	0.0000	1.7375	6.6680	2.8616	30.0000	5.6000
Standard Deviation	0.5836	0.6870	0.4859	4.2687	23.7321	3.3792
Sample Variance	0.3406	0.4720	0.2361	18.2222	563.2103	11.4193
Kurtosis	2.7399	1.6209	0.6755	142.7520	0.0642	-1.5242
Skewness	0.9516	1.3803	0.2944	11.5193	0.9000	-0.0914
Range	4.2752	3.7124	3.4049	55.3744	97.0000	8.6800
Minimum	-1.7578	0.0471	4.6068	-0.9681	3.0000	5.6000
Maximum	2.5174	3.7595	8.0117	54.4063	100.0000	14.2800
Sum	85.3942	155.4701	1155.3539	121.7021	6418.0000	1862.8000
Count	180	180	180	180	180	180

From the output, the cross-section data on the 36 insurance companies over the five years comprised of 180 observations for each of the five variables incorporated in the analysis. The results show positive means for all variables. The range of the variables is identified by the median row and the table further shows the maximum and minimum

values of the variables. The mean for ROA is 47.44% for the insurance companies over the period of study, with a standard deviation of 58.36%. The mean for Financial Leverage is 86.37% with a standard deviation of 68.7%. The average size for the firms stand at 6.4 with a maximum value of 8.0 and minimum value of 4.6 indicating that most firms are close in size. The average age of companies is 35 years, meaning that most insurance companies in Kenya have been in business for a relatively long period which is supported by the growth mean of 67.61%.

4.3 Correlation Analysis

Table 4.3.1 Correlation Analysis

	<i>ROA</i>	<i>FL</i>	<i>SIZ</i>	<i>GTH</i>	<i>AGE</i>	<i>INF</i>
<i>ROA</i>	1					
<i>FL</i>	0.334701	1				
<i>SIZ</i>	0.327386	0.524352	1			
<i>GTH</i>	-0.01509	0.077182	0.106355	1		
<i>AGE</i>	0.307248	0.163181	0.182115	0.127738	1	
<i>INF</i>	0.049011	-0.0566	0.000102	-0.14923	0.017526	1

Multicollinearity check is useful in testing whether two variables are highly correlated. From the correlation matrix above it shows that there is no multicollinearity, the coefficients are below 0.7 meaning there is low associations between the independent variables. According to Matignon (2005) a correlation coefficient of 0.7 to 0.99 indicate a problem of multicollinearity. From the matrix, most cells show low positive correlations. Only inflation (INF) which have low negative correlation coefficients against financial leverage (FL) and growth (GTH).

4.4 Regression Analysis

This section discusses the regression statistics output, statistical significance of the model and model coefficients.

4.4.1 Regression Output

The regression statistics output derived from the analysis is summarized in the Table below;

Table 4.4.1 Summary Regression Output

<i>Regression Statistics</i>	
Multiple R	0.4568
R Square	0.2087
Adjusted R Square	0.1859
Standard Error	0.5266
Observations	180.0000

The table above provides the model summary results whereby it gives values of R^2 , Adjusted R^2 , and standard error. This shows how well the regression model fits the data analysed. The R^2 represents the correlational coefficient which measures the quality of dependent variables; in this case, the value of R^2 is 20.87% which shows a weak level of prediction at 5% significance level. However, Adjusted R^2 which is a coefficient of determination shows the variation in the dependent variable due to changes in the independent variables. From the findings, the value of adjusted R^2 is 0.1859 an indication that there was variation of 18.59% on financial performance of insurance companies due to changes in the independent variables; financial leverage, Firm Size, Growth, Age, and Inflation, the other 81.5% is not explained by the model. This shows that financial performance of insurance industry in Kenya is not affected much by these variables. This means that they are other factors that affect financial performance of insurance companies in Kenya.

4.4.2 Statistical Significance of the Model

The significance of the estimated model can be summarized in the ANOVA table below;

Table 4.4.2 Analysis of Variance (ANOVA)

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	12.72289035	2.544578071	9.177280321	0
Residual	174	48.24485783	0.277269298		
Total	179	60.96774819			

In this output, the test statistic, F, is reported in the analysis of variance table, F (5,174) = 9.177. The p-value for this statistics is $p < 0.001$. This shows that there is evidence that there are differences in the means across variables indicating there is significant effect of independent variables to financial performance.

4.4.3 Estimated Model Coefficients

The regression model coefficient derived from the analysis in the table below;

Table 4.4.3 Model Coefficients

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-1.367	0.593	-2.305	0.022	-2.539	-0.196
FL	0.176	0.068	2.603	0.010	0.043	0.310
SIZ	0.218	0.096	2.267	0.025	0.028	0.407
GTH	-0.010	0.009	-1.093	0.276	-0.029	0.008
AGE	0.006	0.002	3.598	0.000	0.003	0.009
INF	0.008	0.012	0.659	0.511	-0.016	0.031

The equation derived is

$$Y = -1.367 + 0.176X_1 + 0.218X_2 - 0.010X_3 + 0.006X_4 + 0.008X_5$$

Where:

Y = Return on Assets (**ROA**)

X_1 = Financial leverage ratio (*FL*)

X_2 = Log of total assets (*SIZ*)

X_3 = Growth - Log of change in tangible assets (*GTH*)

X_4 = Number of years since establishment (*AG*)

X_5 = Inflation rate (*INF*)

In this model, it can be observed that holding financial leverage, size, growth, age and inflation to a constant zero, return on assets would be -1.367. Further, it can be observed that there is a positive relationship between financial performance and financial leverage, size, age and inflation and negative relationship on between financial performance and growth.

A unit increase in financial leverage would lead to an increase in return on assets by a significant factor of 17.6%, a unit increase in total assets (size) would lead to an increase in return on assets by a factor of 21.8%, a unit increase in number of years since establishment (age) would lead to an increase in return on assets by an significant factor of 0.6% and a unit increase in inflation would lead to an increase in return on assets by an insignificant factor of 0.8%. Further a negative relationship is observed between financial performance and growth (change in tangible assets), a unit increase in growth of tangible assets would lead to a decrease in return on assets by an insignificant factor of 0.010.

4.5 Chapter Conclusion

From the above analysis, it is found that the effect of capital structure on the performance of insurance companies in Kenya is relatively small. This has been indicated in the model whereby the variables which were used in the analysis can only explain 18.6% of the performance of insurance companies in Kenya the other 81.4% cannot be explained. Therefore, it is observed that the model is not very strong predictor of financial performance in the insurance industry in Kenya.

Further analysis of the model shows that the coefficients of the model financial leverage, size, age and inflation affect financial performance positively whereas change in the tangible assets affects financial performance negatively. From the model results, financial leverage and size have a significant effect in predicting financial performance than age and inflation which have an insignificant factor. There was a fairly strong relationship between the financial performance of insurance companies and the financial leverage, size, age and inflation. The coefficient on tangible assets was negative, an indication that there existed a negative relationship between financial performance and growth.

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the findings from chapter four. Conclusions, limitations and recommendations were based on the objective of the study i.e. to determine the relationship between capital structure and financial performance of insurance companies in Kenya. The study used secondary data from Insurance Regulatory Authority for 36 firms for year 2008 to year 2012.

5.2 Summary of Findings

From the analysis in Chapter Four, it can be observed that capital structure have some effect on financial performance of insurance companies in Kenya. The model equation shows that growth in financial leverage would affect financial performance positively leading to improvement in profitability. If there is an increase in debt levels, the return on asset is expected to increase by 17.6% per unit measure. The study also shows similar effect on size, Age of an insurance company and inflation on insurance company financial performance. If there is a unit increase in size, Age and inflation, the ROA will tend to increase by 21.8%, 0.6% and 0.8% respectively, indicating that financial leverage and size are more significant in predicting financial performance than age and inflation which have insignificant factor at 95% confidence level. On the other hand, growth in tangible assets show different effect, that a unit increase would affect financial performance negatively by decreasing performance at a rate of -1%.

The findings shows that insurance companies that increase their debt ratio, asset levels, with more years in business will improve financial performance since their ROA will tend to rise. However, inflation returned insignificant results meaning that it does not

directly affect financial performance. Whereas those insurance companies that concentrate on growth in tangible assets will affect performance negatively by -1% hence reducing their profitability.

There exist a fairly strong positive relationship between debt and firm size, the results are consistent with Titman and Wesley (1988) who concluded that large firms are more diversified and tolerate high debt levels. Other Variables that indicate inverse relationship are inflation, growth and financial leverage. Both relationships are in tandem with the normal operations of the industry. Such that when inflation is high growth will decrease likewise when inflation is high/low financial leverage will be low or high.

The results are also consistent with the findings of Mutuku (2009) who analysed macroeconomic influences on corporate capital structure of listed firms in Kenya, concluded that general change in inflation rates have little impact on debt levels. Further, Kuria (2010) analysed seven years (2003 – 2009) data of listed firms in NSE using multiple regression and correlational analysis asserts financial performance, have a significant relationship with financial leverage, that is profitable firms do not often finance their investments from debt source but use retained earnings supporting pecking order theory. Other variables by Kuria (2010) that were consistent with the findings are size of a firm and asset structure affect leverage ratios supporting static trade off theory.

5.3 Conclusion

The study objective was to determine the relationship between capital structure and performance of the insurance companies in Kenya. The findings of adjusted R^2 revealed that there exist a variation on profitability of insurance companies due to changes in financial leverage, size, age, tangible assets and inflation.

Therefore, It can be concluded that capital structure do have a relationship with financial performance of the insurance industry although the effect is minimal. It is also observed that there are other major factors which affect the performance of the insurance companies more than its capital structure. These other factors may include level of advertising and promotion, marketing strategies adopted, insurance products innovations, corporate governance, management among others. These factors should be included in other studies relating to financial performance of insurance companies in Kenya.

5.4 Recommendations

The management of insurance companies will be able to make informed decision on borrowings to influence financial performance positively. From the findings, financial leverage was observed to be a key contributor to improvement of financial performance. Therefore, the finance managers in the insurance industry need to maintain an optimal capital structure that will help improve financial performance as long as the debt does not exceed the industry expected optimum level. Investing in tangible assets is desirable and inevitable, due diligence should be taken before making such decisions since aggressive growth impacts the performance negatively.

It is recommended that the investors should use the results obtained from the research, to choose profitable insurance companies to make good investment decision, thereby creating more wealth. The policy holders should also consider mature insurance companies to insure their risk. It has been observed that mature companies that have been in operation for a long period are relatively secure than newly registered insurance companies.

The insurance industry regulator should use the model as a tool to measure financial performance and make good decision on how to regulate the industry. The study findings also provide more information useful to the regulator. The study also revealed that there exists other variables and ways an insurance company can use to improve performance the regulator can adopt.

5.5 Limitations of the Study

There were various limitations which related to this study and which needed to be mentioned to ensure that a researcher considers while planning to carry out a research project. Some of these limitations are outlined below:

The study relied on data collected from secondary sources and any error in the original data could not be avoided. However all data was collected from the Insurance Regulatory Authority and therefore reliable.

The study was based on a five year period from the year 2008 and 2012, a longer period of study would have resulted in a broader dimension to analyse the variables imperfections and their significance to the model.

5.6 Suggestion for Further Studies

The study concentrated on insurance firms in Kenya therefore there is need to undertake further studies on banking sector, agricultural sector, telecommunication and manufacturing sector.

The study advocates that further studies in this area incorporating other financial performance measures such as return on equity and incorporating different variables from those which have been used in this study like impact on level of advertising and

promotion, marketing strategies adopted, insurance products innovations, management actions and new product development.

Finally, a similar study should be carried out using a different methodology which can be able to overcome time limitation, preferably carried out by a researcher outside academic program.

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APPENDICES

Appendix 1: LIST OF INSURANCE COMPANIES IN KENYA – MARCH 2014

1	AAR Insurance Kenya Ltd	26	Kenya Orient Insurance Ltd
2	Africa Merchant Assurance Company Ltd	27	Kenya Reinsurance Corporation Ltd
3	AIG Kenya Insurance Company Ltd	28	Madison Insurance Company Ltd
4	APA Insurance Ltd	29	Mayfair Insurance Company Ltd
5	APA Life Assurance Ltd	30	Mercantile Insurance Company Ltd
6	British American Insurance Company	31	Metropolitan Life Insurance Company
7	Cannon Assurance Company	32	Occidental Insurance Company Ltd
8	CFC Life Assurance Ltd	33	Old Mutual Life Assurance Company Ltd
9	CIC General Insurance Ltd	34	Pacis Insurance Company Ltd
10	CIC Life Assurance Ltd	35	Pan Africa Life Assurance Ltd
11	Continental Reinsurance Ltd	36	Phoenix of East Africa Insurance Co. Ltd
12	Corporate Insurance Company	37	Pioneer Assurance Co. Ltd
13	Direct Line Assurance Company Ltd	38	Real Insurance Company Ltd
14	East Africa Reinsurance Company Ltd	39	Resolution Insurance Company Ltd
15	Fidelity Shield Insurance Company Ltd	40	Takaful Insurance Of Africa Ltd
16	First Assurance Company	41	Tausi Insurance Company Ltd
17	GA Life Assurance Ltd	42	The Heritage Insurance Company Ltd
18	GA Insurance Ltd	43	The Jubilee Insurance Company Ltd
19	Gateway Insurance Company Ltd	44	The Kenyan Alliance Insurance Co. Ltd
20	Geminia Insurance Company	45	The Monarch Insurance Company Ltd
21	ICEA Lion General Insurance Co	46	Trident Insurance Company Ltd
22	ICEA Lion Life Assurance Co. Ltd	47	UAP Insurance Company
23	Intra Africa Insurance Company Ltd	48	UAP Life Assurance Ltd
24	Invesco Assurance Company Ltd	49	Xplico Insurance Company
25	Kenindia Assurance Company Ltd		

Source: Insurance Regulatory Authority (IRA) – June 2014

Appendix 2: DATA COLLECTION SHEET

Sort	Name	YEAR	Return on Asset	Financial Leverage	Size	Growth	Age	Inflation
1	AIG/CHARTIS	2008 - 2012						
2	AMACO	2008 - 2012						
3	APA	2008 - 2012						
4	BRITAK/BRITAM	2008 -2012						
5	CANON	2008 - 2012						
6	CFC LIFE	2008 - 2012						
7	COOPERATIVE/CIC	2008 -2012						
8	CORPORATE	2008 -2012						
9	DIRECTLINE	2008 -2012						
10	FIDELITY	2008 -2012						
11	FIRST ASSURANCE	2008 -2012						
12	GA	2008 -2012						
13	GATEWAY	2008 -2012						
14	GEMINIA	2008 -2012						
15	HERITAGE	2008 -2012						
16	ICEA	2008 -2012						
17	INTRA AFRICA	2008 - 2012						
18	JUBILEE	2008 -2012						
19	K ALLIANCE	2008 -2012						
20	KENINDIA	2008 -2012						
21	KENYA ORIENT	2008 -2012						
22	MADISON	2008 -2012						
23	MAYFAIR	2008 -2012						
24	MERCANTILE	2008 -2012						
25	METROPOLITAN	2008 -2012						
26	MONARCH	2008 -2012						
27	OCCIDENTAL	2008 -2012						
28	PACIS	2008 -2012						
29	PAN AFRICALIFE	2008 -2012						
30	PHOENIX	2008 -2012						
31	PIONEER	2008 -2012						
32	REAL	2008 -2012						
33	TAUSI	2008 -2012						
34	TRIDENT	2008 -2012						
35	UAP Insurance	2008 -2012						
36	UAPLife	2008 -2012						