THE EFFECT OF REINSURANCE PROGRAMMES ON FINANCIAL PERFORMANCE OF GENERAL INSURANCE COMPANIES IN KENYA

BY

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DECLARATION

This research project is my original work and has not been submitted to any other University or institution of higher learning for any academic award.

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D63/75232/2014

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

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DEDICATION

I would like to dedicate this work to my supportive, loving and inspirational family that has always stood with me and whose determination, strength and encouragement makes everything look effortless. My special dedication also goes out to my friends in the insurance industry for the key role they played in furnishing me with the necessary information.

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I am grateful to God for granting me the opportunity to carry out this project alongside with my Supervisor, Herick Ondigo, for his guidance**.** Special recognition also goes out to my employer for the support accorded especially granting me permission from time to time to carry out this academic work.

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LIST OF ABBREVIATIONS

AKI - Association of Kenya Insurers.

ALM- Asset Liability Management.

APA - Apollo and Pan African Insurance Company.

BRITAM - British American Co. Ltd.

CIC - Cooperative Insurance Company.

GWP- Gross Written Premiums.

IAIS- International Association of Insurance Supervisors.

(ICP‟s) - Insurance Core Principles.

IRA - Insurance Regulatory Authority of Kenya.

NWP- Net Written Premiums.

ROA- Return on Assets.

ROI- Return on Investment

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ABSTRACT

Reinsurance has long been identified as the most used risk management tool by insurance companies. Insurers frequently purchase reinsurance because it reduces bankruptcy risk, expanding capacity, Stabilization of loss experience and catastrophe protection. This study examined the effects of reinsurance arrangements on financial performance of general insurance companies. In particular, the study assessed the relationship between reinsurance and financial performance indicators for insurance companies such as net premiums, claim ratios and underwriting profitability. Analytical survey as well as correlation study research design methods in establishing the associations between variables were employed. The population comprised of the total number of general insurance firms that existed from 2013 to 2015. Published secondary data on gross and net premiums, underwriting profits and management expenses which are readily available from the insurance industry annual reports and insurer's annual financial statements was used. Both descriptive and inferential statistics were employed in analysing the data. Analysis was done with the help of Statistical packages for social sciences (SPSS version 21).There existed a positive but insignificant relationship between reinsurance and financial performance. Retention levels were negatively related to underwriting profit ratio. However the effect of retention levels on underwriting profits was insignificant. The effect of net claims ratio on underwriting profit ratio was negative and significant. Net commissions earned had a positive effect on underwriting profit ratio. This study recommends that insurance companies should effectively manage their claim costs and underwriting quality in order to increase their underwriting profits.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Insurance is defined as a mechanism of transferring risk whereby individuals or corporates shift some life uncertainties to other business enterprises' shoulders and in return pay premiums for the risk transfer (Vaughan 2008). Reinsurance on the other hand is a transaction through which one insurance firm (the "reinsurer.") enters into a contractual agreement with another insurance firm (the "reinsured, or "primary insurer") to indemnify it against part or the entire loss that the latter may sustain under the policies which it has issued to its clients. As a consideration, the ceding company pays reinsurance premiums to the reinsurer. Like insurance, the aim of reinsurance is to spread risk. Hence, insurance companies spread their risks and are able to protect themselves against extraordinary or unforeseen losses through reinsurance. For instance, in case of a catastrophic fire at an industrial enterprise the industrial enterprise's claims may financially devastate an insurance company that covered the risk. According to Munich (2010), reinsurance enables all insurers to manage their financial burdens to the extent that none is faced with a financial burden that it is not able to pay.

Reinsurance has been identified as an important component of the insurance industry by the IAIS in their Reinsurance and Financial Stability (2012) paper. Furthermore, the paper has stated that reinsurers reduce volatility of earnings of the primary insurers by absorbing losses that the primary insurers do not retain on their book or have transferred. The reinsurance business structure is similar to the structure pursued by primary insurers. Hence they enter into contracts with primary insurers to indemnify them against future claims that the primary insurer may have against the policies to which they pay premiums today. The insurance models and techniques for selecting risks applied by reinsurers are the same as those used by insurance companies. This enables them to manage their risks. In addition, the accounting principles followed by both reinsurers and insurers are the same. Moreover, the mode of compensating reinsurers for the risks shared are through payment of premiums by the ceding company and like primary insurers, they follow pursue similar general approaches to asset liability management (ALM).

1.1.1 Reinsurance Programmes

Like other business enterprises, insurance companies use a wide range of financing. But insurance companies are unique in that their operations often lead to the creation of explicit liabilities each time they sell their products. Actually, most of the liabilities of typical insurers are held by their policy holders who are the buyers of the firms' products. Again, for an insurer's businesses to succeed, they should not only charge appropriate premiums to cover the risks, but should also provide assurances that claims made by policyholders will be expeditiously be paid according to the insurance policies. That is, an insurers' success depends on proper rating of policies and prompt payment of claims. This is due the nature of insurance business, whereby a policy is expected to pay off when the event or peril insured occurs. There are a number of mechanisms, which can credibly provide assurances that insurance companies will pay claims once a loss occurs such as purchase of reinsurance and commitment of sufficient capital, or surplus funds (Borch, 2010).

According to Blazenko (2006), reinsurance is a form of insurance in which an insurer, known as the reinsurer, accepts part of or all the risks of losses covered by another insurer, known as the ceding company. This transaction whereby an insurer company cedes insurance risks and premiums to a reinsurer enables the ceding firm to simultaneously reduce the variability of its financial leverage and cash flows. On the basis of this, an insurer's decision to reinsure is both a capital structure and a risk management decision.

Insurers offer policies and collect premiums from policyholders with a promise of paying claims in future when the insured events occur. The time of settlement of losses for a number of types of insurance may take long periods of time which can stretch to several months or even years after the insured incident or accident occurs. In case this risk was reinsured and during this period of

waiting for settlement of the claim the insurance company defaults paying premiums to the reinsurer, or in case the insurer defaults, policy holders may lose all or part of their claims. Therefore, insurance policy holders should be greatly interested in the continued financial stability of the insurance company a major challenge to policyholders is their inability to diversify their insurance risk through use of many insurers to perfectly monitor the actions of insurance company managers due to the costs involved and their lack of specialized expertise. Harrington & Niehaus (2010) argue that the cyclical nature of the insurance business and the potential of large catastrophic losses makes the incentives conflict among different stakeholders worse (Reinsurance therefore enables insurance companies to manage the underwriting residual risks and hence limit huge losses, lower agency costs and alleviate the insurance cycle, and through this, reinsurance reduces the risk of insolvency and enforces insurance firms' financial viability.

1.1.2 Financial Performance

According to Brown (2011) the financial strength of a business is a vital interest of the stakeholders of the business such as investors, corporate managers, business owners and lenders. Cost control and efficiency are the keys to the success of most companies throughout the world. The financial strength of a firm can be measured in many ways. An important consideration in the measurement is the identification of the appropriate measurement tools for each company by considering the economic conditions, business objectives, time horizon, industry and the stage of the life cycle. An understanding of the company's financial performance in comparison to performance in its industry is important as all business compete in all levels of the market place from the local to the international level. The three key aspects of measuring the general financial strength of firms are: liquidity, profitability and solvency.

Profitability indicates the ability of a company to generate net income or net profit for a specific level of activity in terms of investment or sales. An unprofitable company eventually sinks to insolvency which may lead to its liquidation or reorganization. The greater the company's profitability as measured by net income ratios, the stronger is its financial strength. Two of the examples of profitability measures are the net profit margin and the return on investments ratio (ROI). The net profit ratio indicates the proportion of profit that a firm generates from it sales while return on investments measures the level to which capital invested generates profitability (Adams, 2006).

Liquidity evaluates the ability of a company to use resources at its disposal to meet its maturing short-term obligations. A company that fails to meet its immediate financial obligations in a timely manner can eventually become insolvent and thus require to be reorganized or to be liquidated. A company is deemed in a strong liquidity position if its ratio of resources or current assets to current commitments is high. The current assets ratio and the accounts receivables turnover ratio are some of the examples of ratios that measure firm liquidity. The current ratio compares a firm's current assets (assets which the company does not intend to hold for more than one year) to the current or short term liabilities owed the organization (debts that will mature within one year). The accounts receivables turnover ratio assesses the working capital required for a given level of sales. It measures sales size relative to the amount of average accounts receivable (Choi, 2005).

Solvency measures an insurer's ability to honour its long-term liabilities and to have adequate cash to meet the financial needs of running its insurance business. Failure by an insurer to make payments within reasonable time may lead to its reorganization or worse its liquidation. The debt

ratio is one of the examples of solvency ratios. It measures the size of long term debt to the total capital of a firm. A higher solvency ratio implies that an organization is weak financially. The measures of financial strength for insurance companies are affected net premium written, net commissions, claims incurred, investment income, underwriting results, net operating profit, shareholders' funds results, management expenses and asset investments (Emmett & Vaughan, 2007).

1.1.3 Effect of Reinsurance Programmes on Financial Performance

Chen and Wong (2014) posits that through reinsurance insurers are offered protection against unforeseen and exceptional losses as it enables them to diversify their risks. For instance, in case of a catastrophic fire at a commercial hub, the claims from various firms operating in that area may financially devastate an insurance company that covered the risk. Reinsurance enables all insurers to manage their financial burdens to the extent that none is faced with a financial burden that it is not able to pay (Munich, 2010). This risk reduction by insurance companies insuring part of its insurance risk with a reinsurance company or companies enables an insurance company to safeguard its financial performance. Therefore, reinsurance affects the financial performance of an insurance company as way of example, when many policy holders make claims to the insurance company, it can in turn make claims of funds from the reinsurers to meet its financial obligations of its clients; hence, the insurance company avoids or reduces the possibility of being overwhelmed by the cash required to settle their claims.

The business quality of reinsurance or reinsurance results is determined by looking at total claims incurred in comparison with the premiums earned. Obviously a lower loss ratio indicates a better financial performance for insurance companies. The expenses ratio measures efficiency of insurers in managing their insurance operations and it is measured as a ratio of total expenses to

total premiums written. Therefore, a higher expenses ratio indicates a weaker operational efficiency and thus a worse financial performance for the organization. A combined loss for insurance companies is computed as the sum of the expenses ratio and loss ratios and as such, a lower combined ratio denotes better financial performance (Leverty & Grace, 2010).

There are many factors that can be expected to relate to financial performance of insurance companies as a result of reinsurance. These include profitability of the firm, which would be expected to be positively related, that is the higher the profitability rate of growth, the higher the financial performance. Conventionally, a positive relationship between firms' size and the financial performance of insurance companies as a result of the advantages of economies of scale is expected. Claims which occur to policy holders erode earnings leading to poor performance and higher loss ratios. Again, related expenses cause a further reduction in profitability and thus a firm's financial performance will be adversely affected if it has a high expense and loss ratio (Ahmed, 2011).

Reinsurance transactions are closely related to underwriting risk, and they affect the performance of insurers and the generally, growth. A number of studies have been done on the linkage between reinsurance and performance and there are inconsistent results regarding the relationship between reinsurance and financial performance. Berger, Cummins and Tennyson (1992) contend that reinsurance programs have a positive effect on the net profitability of insurers. That is, purchase of reinsurance causes the profitability of businesses to improve. Elango, Ma and Pope (2008) studied internationalization and the performance of the property-liability insurance industry and also revealed that there is a positive relationship between reinsurance and company financial performance. This implies that firms which buy more

reinsurance achieve more stable financial performance which also enables them to register high risk-adjusted returns. On the other hand, Choi and Weis (2004), in their investigation of the market structure, efficiency and performance in the U.S. property-liability insurance industry found an unclear linkage between profitability and reinsurance. Hence, they were unable to draw firm conclusions from their study. Meanwhile in a study of firm growth and size in the U.S. property and liability insurance industry, Choi (2005) indicated that the growth rate of insurers that buy more reinsurance is lower as compared to the growth of those which cede less. Although there are mixed results on the relationship between reinsurance and profitability, majority of the studies propose an existence of a positive relationship between reinsurance and performance. That is, reinsurance is believed to improve risk diversification among the pool of policy holders and hence better financial performance. A number of factors may make reinsurance to have a negative impact on performance such as an increase in costs caused by the reinsurance activities. Furthermore, an increase in dependency on reinsurance can cause insurers to have low premium retention which consequently cause a reduction in the potential net profitability.

1.1.4 The Kenyan Insurance Industry

The insurance/reinsurance industry in Kenya comprises of insurance companies, reinsurance companies, intermediaries loss adjustment firms, motor assessment companies, investigators, claims settling agents and risk management firms. These are registered in accordance with the provisions of the Insurance Act, Chapter 487 of the laws of Kenya. According to IRAs website , in 2016 there are Fifty Two (52) licenced insurers, three (3) local reinsurance companies, one hundred and ninety two (192) insurance brokers, and six thousand five hundred and ninety six (6596) insurance agents. There are five main reinsurance companies in Kenya (3 of which are local) including: Kenya Reinsurance Corporation, East African Reinsurance Company,

Continental Re-insurance, Africa Reinsurance Corporation and Zep-Re. The re-insurance companies enter contractual agreements with insurance companies where the insurance companies pay a reinsurance premium to the reinsurance company to indemnify them in the event of financial consequences of certain loss exposures

IRA regulates the insurance industry in Kenya. It was created under the Insurance (Amendment) Act of 2006 and came into operation on 1st May, 2007 (IRA, 2010). The Authority was established with the mandate of regulating, supervising and developing the insurance industry. The statute regulating the industry is the insurance Act, Chapter 487 of the laws of Kenya. The office of the commissioner of insurance was established under the provisions of the Act to strengthen the government regulation of the industry under the Ministry of Finance. The insurance industry in Kenya has a regulatory framework that is designed to ensure the stability of the insurance system and to generally protect the interest of policy holders.

IRA has issued guidelines on reinsurance (2013) which identify reinsurance as a vital part of an insurer's risk transfer strategy which provides for protection against the potential large accumulations of individual losses that can result from catastrophic events. The guidelines stipulate how reinsurance arrangements are done by insurance companies and provides for minimum elements that must be taken into consideration while designing reinsurance programs.

There are three major reinsurers in Kenya ranging from Kenya Re, East Africa Re and Continental Re. The reinsurance companies have the capacity in writing both Life and Non-life insurance. This allows them to provide insurance companies financially sound risk transfer solutions in all lines of business. Some of the programs offered by reinsurance companies in Kenya include: Operational risk cover, business interruption cover, sabotage and terrorism,

marine cargo insurance, directors' and officers' liability, general third party, automobile liability and environmental impairment liability among others.

1.2 Research Problem

Primary insurers use reinsurance as a major risk and capital management tool with an objective of achieving the required solvency capital levels. There is little understanding of the insurance practice to general public apart from few players in insurance industry. Even within the insurance industry, reinsurance which is the insurance of an insurer is understood to a small extent (Mayo & Heinen, 2014).

According to the World Bank forecasts, the Kenyan economy will grow by 6% in 2017. With this economic growth, private financial consumption will increase which will is in turn expected to cause gross insurance premiums to grow. The insurance industry in Kenya is facing a number of challenges with eight insurance companies collapsing in the past few years due to operational gaps in in the management of company finances. The collapse of insurance companies have caused great losses to policy holders as failed companies are not able to compensate them when they make claims after occurrence of insured risks. Therefore, by Kenyan insurance companies purchasing re-insurance they can reduce insolvency risks in the industry, protect them against unexpected catastrophes and lower their liability.

Due to the technical nature of reinsurance, a small number of empirical studies have been conducted in this area. Chen and Lee (2012) conducted a study on the reinsurance and performance of Taiwan property liability insurance companies and found that insurers which purchased less reinsurance have higher returns on assets while low firm performance was witnessed among insurance companies which have high dependence on reinsurance. In a study on relationship between macroeconomic variables and the financial performance of insurance companies in Kenya, Murungi (2013) found out that the expense ratio, claim ratio and interest

rates had a significant influence on the performance of insurance companies in Kenya. Another study by Kaguri (2012) on the relationship between firm characteristics and the financial performance of life insurance companies in Kenya established among the variables that influence the financial performance that were under study, claim diversification through reinsurance is ranked fourth.

Most of the studies conducted on reinsurance have attempted to research the influence of reinsurance on individual indicators of financial performance such as capital management and profitability separately, and using a risk management perspective. There is also a clear knowledge gap in Kenya since there is minimal research on the impact of reinsurance on the financial performance of insurance companies in the Kenyan context. The study therefore seeks to address this knowledge gap by answering the question: What is the impact of reinsurance on the financial performance of insurance companies in Kenya?

1.3 Research Objective

To assess the effect of reinsurance programmes on the financial performance of insurance companies in Kenya.

1.4 Value of the Study

The study will be useful to executive managers of insurance companies by providing the connection between reinsurance and financial performance which will enable them to make better informed decisions. This study will also provide feedback to the insurers as regards to whether they are benefiting from their reinsurance arrangements. This study will also inform the executive management of IRA on how to better regulate the industry in terms of policy as pertains to reinsurance and performance of insurance companies.

This study opens the scope for other researchers in reinsurance field to identify areas for further research. Academicians will therefore gain more knowledge on how reinsurance can be used to ensure better financial and underwriting results of companies in Kenya. This will enable them to enhance their literature on the financial benefits of reinsurance.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter summarizes substantive findings which constitute the collection of interrelated concepts that guide this research, determining what measures to look out for and the statistical relationships of other authors works.

2.2 Theoretical Review

Three theories on reinsurance are covered for this study: Team production theory, organisation development theory, and the knowledge based theory.

2.2.1 Team Production Theory

This theory provides insight into the evolvement of a firm. In the analysis of this theory, Alchian, Armen, Demsetz and Harold (1979), theorised that production of a team led to additional output which led to emergence of a firm. Moreover, whether a team is successful or not depends on the capability of managers to lead the team in a way that overcomes the challenge of attendant shirking and also, metering problems. As suggested by them, this can be achieved by observing input behaviour, and through forecasting of marginal productivity. In the event where the individual monitoring input behaviours and marginal/additional productivity happens to be the recipient of residual income, such monitoring will be effectively encouraged. Alchian et al (1979), posited that the firm as a corporate entity brings together a more motivated and productive team as opposed to functioning at arm's length in the market. Team production succeeds more as the togetherness of the team enables the firm to minimize informational challenges which may result from monitoring efforts of separate individual players in the market.

Simester (2011) evidences the effectiveness residual claimancy of groups when contrasted with payments related to separate individual output irrespective of the size of the teams. Again, when a group adopts self-policing on grounds of residual claimancy, their regulation of common pool of resources such land for grazing, irrigation and fisheries is seen to be more (Ostrom, 1990). There is more evidence of the effectiveness of team production in producer cooperatives work effort regulation (Craig & Pencavel).This theory is relevant to this study because insurance companies in Kenya reinsure with reinsurance companies which in most cases are the same ones, with an aim of spreading claim risks by policy holders. The insurance companies therefore pool resources as a team which are managed by the reinsurance companies. The probability that all the insurance companies will face the risks at the same time is very minimal. Therefore, at any given time only the affected companies can benefit from the pool of resources.

2.2.2 Organization Development Theory

The organization development theory was developed by Larry (1994). It is important in the assessment of challenges of organizational growth and change management effects on employees. The theory breaks organization growth into five evolution periods. These periods although relatively calm, end with a period of crisis and revolution. For all evolutionary periods there is a dominant style of management which enables the firm to achieve growth. Likewise, there is a dominant management problem for all revolutionary periods which required a solution before another phase of growth started. Larry (1994) enumerated five steps of growth for all organizations: direction, delegation, co-ordination and collaboration.

Although Greiner was uncertain about the next revolution, he speculated that it could be caused by the employees 'psychological saturation' which results from physical and emotional exhaustion which is caused by intense teamwork and the pressure to find innovative solutions. He therefore suggested that to avoid or to overcome the various crises and revolutions, management should try to make consistent movements through the evolutions in a given sequence: direction, coordination, collaboration and delegation. He proposed that ordering should not be included in

the growth steps. This study is anchored on this theory because financial performance of insurance companies is a key parameter in their growth.

2.2.3 Resource Based View Theory

This theory explains the ability of a firm to cut a competitive edge for itself through efficient utilization of resources. (Mahoney & Pandian, 1992). They argue that this is possible when firms manage their resources in such a unique way that its peers cannot imitate, hence creating a competitive barrier. In order to have a sustainable competitive advantage, firms must make ensure that its unique resources cannot be mimicked by competitors.

Barney (1991) proposes a framework of determining the competitiveness of resources owned by firms: VRIN criteria. That is, resources must be Valuable, Rare, In-imitable and Non substitutable. According to the resource based theory, a firm's resources which cannot be duplicated by other firms will result to superior performance over the competitors. Over time completion may learn to develop resources similar to the unique resources owned by firm hence the need for firms to continually innovate and reengineer its resources in order to remain competitive to meet future needs of its customers.

Makadok (2001) explains the thin difference between the term resources and capabilities. He defines a firm's capabilities as the special types of resources, specifically those which are specific to it, are non-transferable and embedded to the organization. The sole function of these resources is to enhance the productivity of its other resources. The resource based view has generated a lot of interest from various management researchers and there is an extensive literature on the same. By insurance companies embracing re-insurance programs, they gain a competitive advantage due to improved financial soundness which results from risk spreading. Insurance companies are therefore able to compensate policy holders comfortably, when insured risks occur. To reap maximum competitive advantage, insurance firms are expected to craft their reinsurance programmes for various classes of insurance in a manner appropriate to unique characteristics of their underwriting book.

2.3 Determinants of Financial Performance

Company size is one of the factors that determines firm performance. As firm size grows, it becomes more efficient in utilization of resources and economizes on the production cost per unit and thus results in improvement in firm performance due to the savings. Insurers are consequently able to effectively diversify the risks which they assume due to their large size and also to speedy response to the changing market conditions. Industrial organizational economists observed that large firms have the ability to have monopolistic powers through and can set prices which may be relatively higher than production costs incurred thus can afford bigger profit margins (Bain, 1968; & Scherer, 1980). From the stand point of investment performance, larger firms can easily diversify their investment in a way which maximizes returns and minimizes risks of operation (Adams, 1996). Since larger companies can utilize economies of scale and have enough resources at their disposal to hire and retain competent workforce, they are likely to outperform small insurers. Thus firm size can be said to be positively related to firm performance.

Returns on equity investment is also another factor that affects financial performance. An equity portfolio provides a stream of dividends income to the insurance companies that have invested in them. According to Browne, Carson and Hoyt (1999), an increase in equity returns, causes an increase in returns on insurer's investment portfolio which results to an improvement in the performance of a company. Booth, Cooper, Haberman and James (1999) contends that equity investments benefits the company through provision of an inflation hedge to the firm and also that equity investments can give higher real return in the long run as contrasted to fixed interest investments. Though there exists a positive relationship between returns on equity investment and firm financial performance , a high proportion of equity investments can lead to higher risk of insolvency in cases where the assets' values drops drastically.

Solvency margin also contributes to firm performance .This margin or surplus can be arrived at by measuring the amount of assets that are in excess of the obligations or liabilities of an insurance company Solvency margin can therefore be used to signify the financial health of an insurance organization whereby those with higher solvency margins are seen to be in better financial health condition due to them having at their disposal surpluses which can be used to cater for unexpected losses. Theoretically, well informed policyholders and prospective policyholders will be inclined to purchase insurance policies from insurance companies with a strong financial position. Butsic (1994) argues that a large number of both existing and prospective insurance customers are usually concerned with the financial strength of insurers as evidenced by their informational requirements and searches. Furthermore, better quality risks are attracted to stable insurance companies which further results to higher profits to insurers who have higher solvency margins (Shiu, 2004). This will improve firm performance as well as reduce the risk faced by insurers.

To safeguard themselves against catastrophic losses, increase underwriting capacity and stabilize their earnings, general insurance firms more often than not take reinsurance covers. This form of risk transfer by insurers through reinsurance is known as reinsurance dependence. However, reinsurance leads to additional costs to the insurers making it necessary for insurers to determine the optimum retention levels and strike a balance between lowering potential profitability and decreasing the probability of insolvency. On one hand, increasing reinsurance dependence may raise operational stability of the insurer, while on the other hand a resultant decrease in insurance premium retention level can cause potential profitability to reduce. On this instance, Reinsurance is expected to have a negative impact on performance.

2.4 Empirical Review

A number of past studies have been conducted on reinsurance programmes and firm performance. Kashish and Kashram (1998) researched on insurance and firm performance of insurance companies in Jordan whereby profitability as measured by return on asset, determined as a ratio of net profit over total assets was used as a dependent variable and return on investment (ROI) was used as a proxy. Another study conducted by Vigaykumar and Kadirvelu (2004) revealed that a firm's age is important in the determination of profitability. Older firms benefit from wide experience which enables the company efficiently utilize its resources and thus reduce the costs of operation and thus its profitability will be higher than those of a relatively younger company which indicates a positive relationship between age and financial performance.

Mayers and Smith (2000) studied the corporate re-insurance demand in the Great Britain which indicated that reinsurance provides insurers with many benefits. It minimises conflicts, reduces taxes, aides in reducing agency costs amongst various stakeholders; and helps insurers to provide real services. Mayers and Smith posits that problems of underinvestment encourage companies to purchase reinsurance. They also observed that since insurance firms are regulated, it lessens the incentives for underwriters to purchase property reinsurance as regulated companies have naturally less risks.

Lee (2012) carried out a study to determine how use of reinsurance impacted on performance of property liability insurance companies of Taiwan. This study covered a period of 10 years and used panel data. The findings of this study showed interdependence between the financial performance of property liability insurance companies and reinsurance. Insurers who have higher return on assets in most cases will avoid purchasing more reinsurance. These companies were

found to have higher performance. Similarly those insurers who have high dependency on reinsurance have lower levels of financial performance.

In Kenya, few studies on insurance have been conducted. Mahmoud (2008) studied the financial performance of insurance companies in Kenya. In his case, he studied six insurance companies, three of which from private sector and three were from public sector. He covered a period of 13 years from 1993 to 2006. At first, the researcher used twenty five ratios of financial performance and efficiency. Further, through factor analysis, the research narrowed the ratios to six. The ratios used for the study were ROI, net profits to surplus, net profits to total asset, underwriting expenses paid to premiums written and total liabilities to total asset ratios. The study findings showed that the average of the ratios of efficiency and performance for both private and public companies did not vary significantly. Furthermore, on financial performance, a majority of public sector cases (66.7%) represented the low-efficiency clusters, while 47.6 percent of the private sector cases consisted of high-efficiency clusters of financial performance. These studies implied that the ownership type of insurance companies has some impact on financial performance and efficiency of insurance companies.

Another study by Muya (2013) looked into the factors that determine the financial performance of insurance companies in Kenya and through the findings of the study concluded that interest rates fluctuations have a two way impact on the financial performance of insurers. On one hand, interest rates affect the borrowing rates and hence the cost of financing and on the other hand they affect the ROI rate and thus the income gained. He therefore, recommended that insurers should hire experienced financial analysts to advice on circumstances when interest rates can be advantageous to them and lead to income growth. They also found competition to be another determinant of financial

performance as it leads to the introduction of innovative and affordable products. Liquidity also affects insurance companies' financial performance which causes insurance companies to invest more in liquid investments. These liquid investments enable insurance companies to honour claims in case their underwriting revenue is not sufficient to cover the claims.

Tanu (2015) also sought to establish how the insurance industry in Kenya contributes to economic growth. The study findings showed evidence of the insurance industry having an enormous potential to enable the economic growth through job creation which will result to financial empowerment for the employed citizens. When citizens have higher incomes, the economy of a country grows even further. There is definitely a correlation between the ever growing insurance industry and the growing Kenyan economy, however a lot still has to be done in terms of closing knowledge gap by educating the public on the importance of insurance while at the same time regulations has to be enhanced so as to ensure that there is fairness among the players and that proper procedures are followed to ensure that the monies invested are utilized properly and not embezzled or misappropriated.

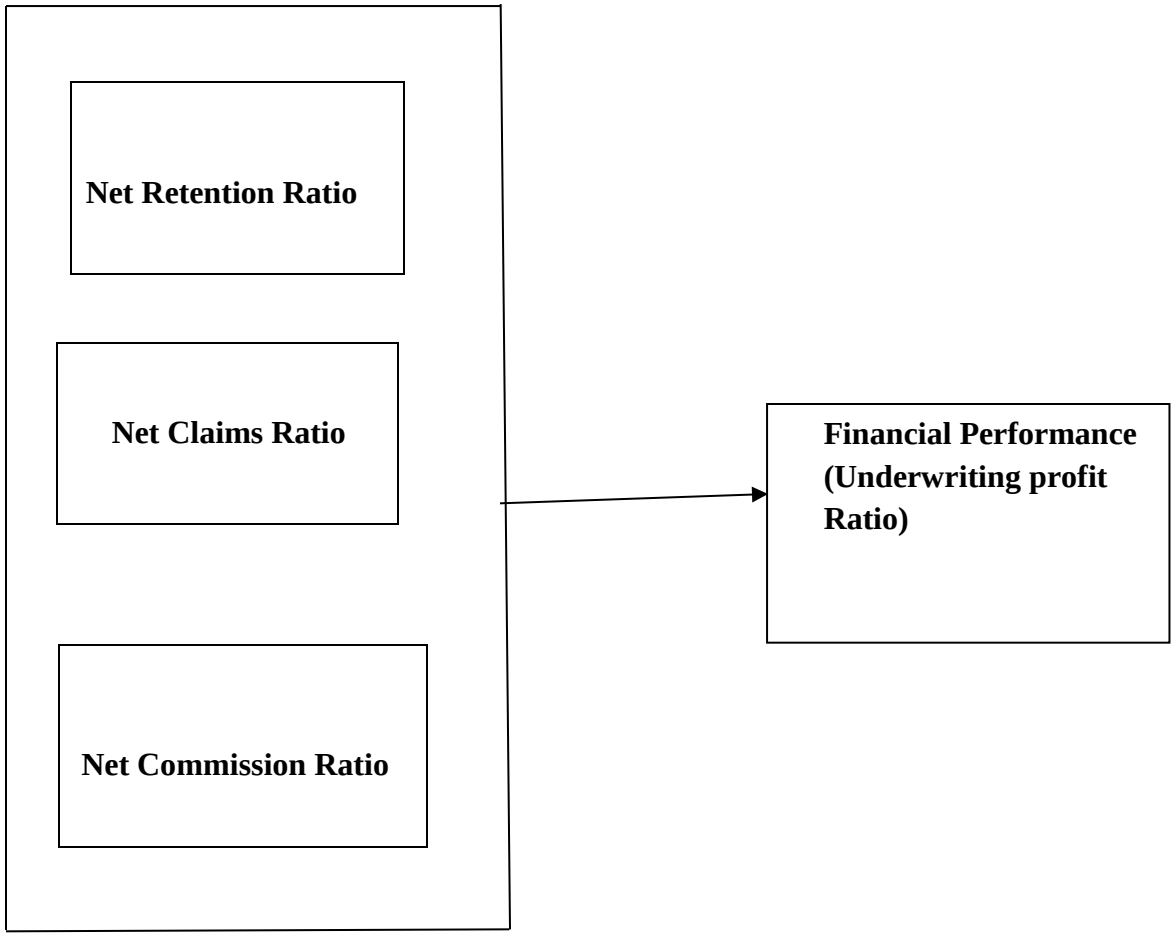
2.5 Conceptual Framework

A conceptual framework simplifies the relationships between variables that are proposed by theory in the study. It presents a diagrammatical and graphical link between the dependent and the independent variables. For this study, the dependent variable is financial performance of insurance companies as measured by the underwriting profit loss ratio. Retention ratio, net claims and net commission ratios are the independent variables. Underwriting profit ratio is derived by dividing the underwriting profit over net premiums. Retention ratio is expressed as a ratio between Net Written Premiums and Gross Written Premiums. Net premiums is gross premiums minus reinsurance premiums(cost).Net Claims Ratio is a ratio between net claims incurred and net premiums while Net Commission Ratio is a ratio between net earned

commission and net written premium. Insurance companies pay commissions to intermediaries who bring business while they earn ceding commissions from reinsurance companies in order to compensate for acquisition expenses which largely consist of commissions paid to intermediaries.

Figure 2.1 Conceptual Model

Independent Variables **Dependent Variable**



Source: Researcher

2.6 Summary of the Literature Review

This study is anchored on the three theories ranging from team production theory, organization development theory and resource based theory. Team production emphasizes on the importance of pooling resources as a team which for reinsurance, entails a reinsurer collecting premiums from different insurance companies which it manages. The pooled resources are used to indemnify a team member who incurs an insured loss. On the other hand organization development theory identifies the stages of development in organizational growth, mainly highlighting the challenges faced and possible solutions for all the growth phases. However, financial growth is given little attention in this theory. The resource based theory focuses on utilising unique resources at a business' disposal to gain competitive advantage. The amount reinsured by insurance company's acts as a competitive advantage against others due to the associated financial stability. It is evident that the three theories emphasize the need of spreading the insurance risks as a mitigation strategy in the event of loss. However, the resource based view is the most appropriate in this study.

From the empirical review it is evident that performance is pegged on various variables from the different works of authors mentioned. The empirical review reveals that minimal research has been done as pertains to reinsurance and the financial performance of insurance companies in the Kenyan Context. This study therefore seeks to address this knowledge gap by looking at the impact of reinsurance on the financial performance of insurance companies and determine if any correlation exists between reinsurance and the company's financial performance.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the research design, the targeted population, the sampling techniques and sample size, data collection and data analysis are presented.

3.2 Research Design

This study adopted a correlation research design. Correlation research design presents an opportunity for the researcher to develop an in-depth understanding of any existing relationships between the variables under review; on this instance, the effect of reinsurance on the financial performance of insurance companies in Kenya. This design also enables hypotheses to be tested. Due to the relationships amongst the study variables including reinsurance and financial performance, this study considered the correlation research design.

In establishing relationships between the variables, the correlation research design employed an analytical review. Churchill and Iacobucci (2002) observed that this design usually utilizes both quantitative techniques as well as qualitative techniques on data. The design in addition seeks opinions on certain subjects which enables researchers to understand and crystallize problems and easily identify information gaps for further future research. Babbie (2004) suggests that through the correlation research design, events are described in detailed and carefully planned manner making it more accurate. For that reason, this study adopted this research method.

3.3 Population

Mugenda and Mugenda (2003) has defined a population of study as an entire group of elements, events, objects or individuals which have common characteristics which conform to a particular

specification. This study targeted all the registered general insurance firms that existed between 2013 and 2015 in Kenya as shown in Appendix I

3.4 Data Collection

According to Flick (2009), data collection entails the process of gathering of empirical information with a purpose to gain new insights as regards the situation under study and to answer the research questions. This study employed secondary data which is published in IRA financial report for all insurance companies in Kenya. From the financial statements and IRA annual reports, information about gross claims, net claims, gross premiums, net premiums and commissions for the period 2013 to 2015 is readily available. These data was extracted from the financial statements and a formula was used to calculate net loss ratio, retention ratio, net claims ratio and net commission ratios.

3.5 Data Analysis

After collecting data, data analysis enables the researcher to find the structure, order and meaning of the data (Mugenda & Mugenda, 2003). The data collected was edited to check completeness and then coded. After data coding, the data was tabulated and through Statistical Package for Social Sciences (SPSS.) version 21 computer software, the data was analysed. For this research, the data analysis also used both inferential and descriptive statistics. To describe and make sense of the data, descriptive statistics were used. The descriptive statistics include means, standard deviations, percentages and frequencies' multiple linear regression analysis was be used to analyse the relationship between reinsurance and financial performance of insurance companies in Kenya. Tables were used to present the research findings.

3.5.1 Analytical Model

The multiple linear regression equation which took into consideration three independent variables

for the 34 general insurance companies from 2013 to 2015 period. It was presented as follows:

$$\mathbf{Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon}$$

Where; Y = Performance of insurance companies measured by the underwriting profit ratio

$\boldsymbol{\beta_1, \beta_2, \beta_3}$ =Regression coefficients

$\boldsymbol{\alpha}$ = Constant/Y intercept

X_1 = Net retention ratio

X_2 = Net claims ratio

X_3 = Net commission ratio

$\boldsymbol{\varepsilon}$ = error term.

3.5.2 Tests of Significance

This study used the coefficient of determination (R^2) to evaluate the level to which variations in reinsurance programs (independent variables) explained the variances in performance (dependent variable). A multicollinearity test was used to determine the extent to which the independent variables were correlated by using the tolerance and Variance Inflation Factor (VLF) of each variable through the SPSS software. Normality tests were also conducted by using skewness and kurtosis measures.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND INTERPRETATION

4.1 Introduction

This chapter presents the data analysis and the findings of the study. The study aimed at looking at the effects of reinsurance programmes on the financial performance of insurance companies in Kenya for the period 2013 to 2015. Out of 34 registered general insurance companies in Kenya as at 2015, the study analysed data from 32 general insurance companies representing a response rate of 94.1%. This response rate is adequate as it is above the recommended 50% (Mugenda & Mugenda, 1999).

4.2 Descriptive Statistics

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Retention Ratio	96	-.13	1.62	.6559	.27263	-.364	.246	1.241	.488
Net Claims Ratio	96	-1.41	3.64	.4499	.54730	1.976	.246	15.389	.488
Net Commission Ratio	96	-2.69	.58	-.0748	.46562	-3.780	.246	15.599	.488
underwriting profit Ratio	96	-3.51	1.86	.0001	.48782	-3.860	.246	30.989	.488
Valid N (listwise)	96								

Source: Research Findings.

The average premium retention ratio for insurance companies is 65.59%; the average net claims ratio is 44.99%; the average net commission ratio is -7.48% and the underwriting profit ratio is 0.01% as shown in table 4.1. The underwriting profit ratio ranges from a minimum of -3.51 to a maximum of 1.86; the retention ratio ranges from -0.13 to 1.62; the net claims ratio ranges from -1.41 to 3.64 and the net commission ratio from -2.69 to 0.58. There is a high dispersion of the ratios from the mean with standard deviations of 0.27, 0.55, 0.47, and 0.49 for the retention ratio, net claims ratio, net commission ratio and the underwriting profit ratios respectively.

The senses measure of the distribution of the variables indicate that the retention ratio and the net claims ratio are normally distributed as their skewness measures (-0.364 and 1.976 respectively) lie within the (-3.0, 3.0) interval. The distributions of the net commission ratio and the underwriting profit ratio are not normal as their skewness measures (-3.780 and -3.860 respectively) are out of the (-3.0, 3.0) interval. The negative values also indicate that the net commission ratio and the underwriting profit ratio are skewed to the left. That is, most of the variables are less than the mean. The kurtosis statistic indicates that only the retention ratio is normally distributed with a measure of 1.241 which is within the (-10.0, 10.0) interval. The kurtosis of 15.389, 15.599 and 30.989 for net claims ratio, net commission ratio and underwriting profit ratio indicate that the distribution of the variables is peaked and not normally distributed as they lie out of the (-10.0, 10.0) interval.

4.3 Inferential Analysis

This section looks at the inferential analysis for the study. It shows the statistical significance of the model, the strength of correlations of the independent variables and the dependent variable and the level of explanation of the changes in the independent variables on the variations in the dependent variable. It also shows the coefficients of the variables, that is the estimates of the study parameters.

4.3.1 Model Summary

Table 4.2: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.765[a]	.585	.571	.31950

Source: Research Findings.

The results in table 4.2 indicate that the influence of reinsurance programmes on financial performance is strong (R=.765). The regression model indicates that 58.5% of the variations in the dependent variable (underwriting profit ratio) are explained by variations in the independent variables as shown by the R Square value in table 4.2. The Adjusted R Square value of .571 indicating that 57.1% of the variations in the dependent variable are explained by the regression model.

4.3.2 ANOVA[b]

Table 4.3: ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.216	3	4.405	43.155	.000[a]
	Residual	9.391	92	.102		
	Total	22.607	95			

Source: Research Findings

The regression model is statistically significant as shown by the sig. value of 0.000 and F value of 43.155 in table 4.3.

4.3.3 Coefficients[a]

Table 4.4: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.356	.107		3.341	.001		
	Retention Ratio	-.060	.147	-.033	-.407	.685	.670	1.492
	Net Claims Ratio	-.687	.061	-.771	-11.250	.000	.962	1.039
	Net Commission Ratio	.100	.086	.096	1.167	.246	.671	1.489

Source: Research Findings

The following regression equation represents the relationship between the independent variables (reinsurance programmes) as the dependent variable (financial performance) as shown in table 4.4.

$$Y= 0.356 - 0.060X_1 – 0.687\ X_2 + 0.1\ X_3$$

The model indicates that the Y-intercept is 0.356 which means that 0.356 is an autonomous component of financial performance (dependent variable) that is not affected by the independent variables (retention ratio, net commission ratio and net claims ratio). The retention ratio affects underwriting profit ratio by -0.060. This indicates that there is a negative relationship between retention ratio and underwriting profit ratio whereby a unitary increase in retention ratio causes net loss ratio to decrease by 0.060 and otherwise. The net claims ratio also affects the underwriting profit ratio by -0.687 indicating that the net claims ratio has a negative effect on the underwriting profit ratio whereby an increase in the net claims ratio by one unit causes underwriting profit ratio to decrease by 0.687 and vice versa. The net commission ratio has a positive relationship on the net loss ratio of 0.1. This indicates that an increase in the net commission ratio by one unit causes the underwriting profit ratio to increase by 0.1%.

The model shows that of the three predictor variables, only net claims has a significant relationship with underwriting profit ratio as indicated by the p-value of 0.000. The relationship between the retention ratio; the net commission ratio and the underwriting profit ratio is not significant as represented by the p-values of 0.685 and 0.246 for the retention ratio and net commission ratio respectively. In addition, the tolerance values of 0.670, 0.962 and 0.671 and the VIF values of 1.492, 1.039 and 1.489 for the independent variables indicate that there is no multicollinearity among the variables as the tolerance values are greater than 0.1 and the VIF values are less than 10.

4.4 Interpretation of the Findings

The reinsurance variables affect the performance of insurance companies in Kenya. The retention ratio has negative relationship with underwriting profit ratio. That is, if a company retains more risk and hence cedes less risk to reinsurance, it follows that it will bear more losses than reinsurance in case claims occur. Conversely if a company retains less risk and hence passes more risk to reinsurance, a less share of loss will be borne by the company when claims occur. This is in agreement with Berger et al. (1992 and Elango, Ma and Pope (2008) who found out that

reinsurance contributes to the financial stability of an organization implying that reducing the retention ratio can improve the financial performance of the insurance companies. However, the results show that the relationship between retention ratio and underwriting profit ratio is insignificant with the p-value less than 0.05 ($p<0.5$).

There is also a negative relationship between the net claims ratio and the underwriting profit ratio. In other words, the higher the net claims incurred, the less the underwriting profits earned by the insurance company. A coefficient of 0.687 indicates that the relationship between net claims and financial performance is strong. The strong negative relationship is also statistically significant with the p-value greater than 0.05 ($p>0.5$). This relationship is consistent with Ahmed (2011) who found that an increase in expenses erodes profitability and thus adversely affects the financial performance of the organization. Generally, since claims are the direct expenses of the insured risks, they incurrence is expected to reduce the profits earned by the firm. And again since the insurance company shares the risks with the reinsurer, its share of the risk will increase net loss.

The net commission ratio has a positive effect on the underwriting profit ratio. This implies that the more ceding commission received over commission paid out to the insurance brokers, the lower the loss incurred by the insurance company. On the contrary if commissions paid out to intermediaries are higher than commissions received from reinsurance companies, the underwriting profit ratio will be decreased. This result is consistent with Leverty & Grace (2010) and Ahmed (2011) whose studies indicate that expenses reduce the profitability of an organization as net commissions can be viewed as net expenses related to reinsurance. The negative effect of the net commission ratio on underwriting profit ratio is not so significant with the p-value which is less than 0.05 ($p<0.5$). Nonetheless, a keen look at the net commission ratio indicates that the mean is negative (-0.0748) and the ratios are skewed to the left implying that the insurance companies are net earners of commissions as a result of commissions earned from the reinsurance ceded. This means that general insurance companies in Kenya earn more commissions from reinsurance as compared to commissions they pay out to intermediaries which improves the underwriting results.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1Introduction

In this chapter ,study findings and recommendations to various insurance and reinsurance stakeholders are highlighted. The chapter also discusses limitations of this study and provides suggestions on areas where further research can be undertaken

5.2 Summary

The study findings indicate that there is a positive relationship between reinsurance and financial performance. A negative relationship between retention ratio and underwriting profit ratio indicates that when insurance companies cede their risks to reinsurance companies, that is, reduce their retention of the insurance premiums, the underwriting profit ratio increases. This is because when the insured perils occur, the insurance companies share the losses with the reinsurance companies commensurate to the ratio of the risk retained and ceded or passed on to them. This means that the lower the risks retained, the lower the share of insurance companies in incurred losses thus reinsurers will have a larger share of claims. This way, companies that have less retentions will have better underwriting profits. However this position holds if the claims incurred are significantly larger than the premiums charged.

A negative relationship between net claims ratio and underwriting profit ratio also indicates that insurance companies need to find a way of reducing the impact of the claims on the insurance policies from eroding the profits earned. It therefore indicates that use of more reinsurance can improve the financial performance of an insurance company through diversification of risks.

The positive relationship between net commission ratio and net loss ratio indicates that reinsurance commissions earned can cause an insurance company to increase its financial performance. The earned commissions reduce the impact of management expenses and thus improve the financial performance of the organization. Basically, higher reinsurance commissions contribute positively to the financial performance of the insurance companies.

5.3 Conclusions

There exists a negative relationship between retention ratio and underwriting profit ratio. When an insurance company retains more premiums, it also takes a proportionally larger share in losses which reduces its underwriting profit and vice versa. Reinsurance reduces the amount and ratio of insurance premiums retained and thus reduces the loss exposure of the insurance company and the actual losses.

The effect of net claims ratio and underwriting profit ratio is negative and significant. Net claims compose a major part of the insurance expenses and thus their incurrence can lead to losses if the incurred claims are higher than premiums earned. This means that insurance companies should reinsure their risks more and thus diversify risk and thereby reduce the net loss incurred. Importantly, reinsurance enables insurers to pass a higher share of losses to reinsurers when there are large single claims or high cumulative losses in an underwriting year.

A positive effect of net commission ratio on underwriting profit ratio indicates that net commissions received contribute positively to the financial performance of insurance companies. It implies that insurance companies should negotiate for more reinsurance commissions which at least cover their commission expense to intermediaries.

5.4 Recommendations for Policy and Practice

One of the recommendations of this study is that insurance companies should put proper reinsurance programs taking into consideration characteristics of their underwriting book such as past loss experience, size of risks and frequency of losses. It is important for insurance companies to have optimal retention levels in their risk diversification. For instance, where insurers are prone to frequent or large losses, they should have lower retentions and reinsurer more in order to ensure favorable financial performance.

The study also recommends effective underwriting and claims management practices. Quality underwriting will result to quality business being written at appropriate premiums which directly affects performance. Proper management of claims will ensure that the actual claims paid will be reduced hence better loss ratios and ultimately high underwriting profits. Insurers must ensure that valid claims are paid as efficiently as possible in order to contain escalation of claims costs. The insurers must also guard against fraudulent claims by putting robust control systems in place.

Another recommendation is to ensure that reinsurance commissions earned from reinsurance contracts cover acquisition costs. The best scenario is when reinsurance commissions are higher than acquisition costs which results to better financial performance. However, it is to be noted that insurers will only attract higher commissions from reinsurers if the quality of the business written is acceptable.

5.5. Limitations of the Study

This study looked at only three factors of reinsurance: ceding commissions, net claims and premium ceded and did not consider the type or structure of reinsurance programs which may affect an insurer's performance.

The research studied all insurance companies registered in Kenya with some variables being outliers leading to skewness of distribution which affects the general relationship as the outliers may affect the study results as opposed to use of a sample of companies with similar characteristics.

Another limitation of the study is the use of an accounting measure of financial performance (underwriting profit loss) which may not give a complete picture of the financial performance as other accounting, marketing and other measures of financial performance can be used.

5.6 Suggestions for Further Research

The study looked at the impact of reinsurance programs on financial performance and considered only three variables. This study therefore suggests that another study should be conducted which will include other factors of reinsurance. It is further recommended that further research should be carried on the impact of reinsurance purchase on liquidity, solvency, capital requirements and stabilization or minimization of results' volatility. Another suggestion is a study that covers a longer period than three years to be conducted. The study also suggests another study which uses various measures of financial performance, that is, accounting, marketing and other measures to be conducted.

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APPENDICES

Appendix I: List of General Insurance Companies as at 31st December 2015

1. AAR Insurance Co. of Kenya Ltd.
2. APA Insurance Co. Ltd.
3. Africa Merchant Insurance Co. Ltd.
4. AIG Kenya Insurance Co. Ltd.
5. BRITAM.
6. Cannon Assurance Co. Limited.
7. CIC General Insurance Co. Ltd
8. Corporate Insurance Co. Ltd.
9. Direct line Assurance Co. Ltd.
10. Fidelity Shield Insurance Co. Ltd.
11. First Assurance Co. Limited
12. GA Insurance Co. Ltd.
13. Geminia Insurance Co. Ltd.
14. ICEA LION General Insurance Co. Ltd.
15. Intra Africa Assurance Co. Ltd.
16. Invesco Assurance Co. Ltd.
17. Kenindia Assurance Co. Ltd.
18. Kenya Orient Insurance Co. Ltd.
19. Madison Insurance Co. Ltd. Kenya Ltd.
20. Mayfair Insurance Co. Ltd.
21. Mercantile Insurance Co. Ltd.
22. Occidental Insurance Co. Ltd.
23. Pacis Insurance Co. Ltd.
24. Phoenix of East Africa Assurance Co. Ltd.
25. Real Insurance. Co. Ltd.
26. Resolution Insurance Co. Ltd.
27. Takaful Insurance of Africa Co. Ltd.
28. Tausi Assurance Co. Ltd.
29. Heritage Insurance Co. Ltd.

30. Jubilee Insurance Co. Ltd.
31. Monarch Insurance Co. Ltd.
32. Trident Insurance Co. Ltd.
33. UAP Insurance Co. Ltd.
34. Xplico Insurance Co. Ltd.

Source: IRA Annual Reports, 2013-2015

Appendix II: Ratios used as Variables

Year	Company	Retention Ratio	Net Claims Ratio	Net Commission Ratio	Underwriting profit Ratio
2013	AAR INSURANCE CO. LTD.	0.80	0.40	0.08	-0.01
2014	AAR INSURANCE CO. LTD.	0.18	0.08	-0.04	-0.58
2015	AAR INSURANCE CO. LTD.	0.90	0.63	0.07	0.05
2013	AFRICAN MERCHANT INSURANCE CO. LTD.	0.78	0.50	0.06	-0.04
2014	AFRICAN MERCHANT INSURANCE CO. LTD.	0.65	-0.12	-0.04	0.39
2015	AFRICAN MERCHANT INSURANCE CO. LTD.	0.80	0.50	0.06	0.00
2013	AIG INSURANCE CO. LTD.	0.59	0.46	0.04	0.04
2014	AIG INSURANCE CO. LTD.	0.11	0.00	-2.69	-0.19
2015	AIG INSURANCE CO. LTD.	0.62	0.62	0.05	0.01
2013	APA INSURANCE CO. LTD.	0.78	0.68	0.11	0.01
2014	APA INSURANCE CO. LTD.	0.72	0.61	0.13	0.09
2015	APA INSURANCE CO. LTD.	0.76	0.63	0.07	0.01
2013	BRITISH AMERICAN INSURANCE CO. LTD.	0.83	0.49	0.09	0.08
2014	BRITISH AMERICAN INSURANCE CO. LTD.	0.80	0.74	0.11	-0.01
2015	BRITAM GENERAL INSURANCE CO. LTD.	0.87	0.64	0.10	-0.09
2013	CANNON ASSURANCE CO. LTD.	0.74	0.66	0.09	-0.13
2014	CANNON ASSURANCE CO. LTD.	0.14	0.75	-2.15	0.28
2015	CANNON ASSURANCE CO. LTD.	0.78	0.58	0.11	-0.11
2013	CIC GENERAL INSURANCE CO. LTD.	0.91	0.56	0.06	0.05
2014	CIC GENERAL INSURANCE CO. LTD.	0.38	0.58	-0.03	0.03
2015	CIC GENERAL INSURANCE CO. LTD.	0.85	0.80	0.09	0.02
2013	CORPORATE INSURANCE CO. LTD.	0.78	0.34	0.08	0.03
2014	CORPORATE INSURANCE CO. LTD.	0.40	0.79	-0.17	-0.60
2015	CORPORATE INSURANCE CO. LTD.	0.81	0.26	0.11	0.19

2013	FIDELITY SHIELD INSURANCE	0.75	0.53	0.07	0.04
2014	FIDELITY SHIELD INSURANCE CO. LTD.	0.11	0.13	-1.02	-0.03
2015	FIDELITY SHIELD INSURANCE CO. LTD.	0.76	0.66	0.08	-0.05
2013	FIRST ASSURANCE CO. LTD.	0.64	0.75	0.02	0.05
2014	FIRST ASSURANCE CO. LTD.	0.24	0.33	-0.55	0.06
2015	FIRST ASSURANCE CO. LTD.	0.63	0.72	0.06	0.01
2013	GA INSURANCE CO. LTD.	0.54	0.66	-0.01	0.04
2014	GA INSURANCE CO. LTD.	0.45	0.03	-0.19	0.61
2015	GA INSURANCE CO. LTD.	0.53	0.57	0.01	0.04
2013	GATEWAY INSURANCE CO. LTD.	0.86	0.30	0.08	-0.04
2014	GATEWAY INSURANCE CO. LTD.	0.18	0.20	-0.34	0.12
2015	GATEWAY INSURANCE CO. LTD.	0.84	1.07	0.06	-0.85
2013	GEMINIA INSURANCE CO. LTD.	0.76	0.41	0.07	0.15
2014	GEMINIA INSURANCE CO. LTD.	0.47	0.08	-0.26	0.16
2015	GEMINIA INSURANCE CO. LTD.	0.72	0.59	0.07	0.00
2013	HERITAGE INSURANCE CO. LTD.	0.55	0.36	0.00	0.09
2014	HERITAGE INSURANCE CO. LTD.	0.15	1.02	-0.13	-0.18
2015	HERITAGE INSURANCE CO. LTD.	0.59	0.44	0.02	0.04
2013	ICEA LION GENERAL CO. LTD.	0.62	0.44	0.07	0.08
2014	ICEA LION GENERAL INSURANCE CO. LTD.	0.14	-0.87	-1.24	0.19
2015	ICEA LION GENERAL INSURANCE CO. LTD.	0.59	0.53	0.09	0.02
2013	INTRA-AFRICA ASSURANCE CO. LTD.	0.77	0.62	0.01	-0.02
2014	INTRA-AFRICA ASSURANCE CO. LTD.	0.56	0.28	-0.06	0.26
2015	INTRA-AFRICA ASSURANCE	0.82	0.56	0.03	0.04
2013	INVESCO ASSURANCE	0.98	0.34	0.09	-0.04

	CO. LTD.				
2014	INVESCO ASSURANCE CO. LTD.	1.00	2.65	0.02	-3.51
2015	INVESCO ASSURANCE CO. LTD.	0.98	0.45	0.10	0.01
2013	JUBILEE INSURANCE CO. LTD.	0.81	0.65	0.07	0.07
2014	JUBILEE INSURANCE CO. LTD.	1.62	0.49	0.28	-0.66
2015	JUBILEE INSURANCE CO. LTD.	0.75	0.60	0.07	0.06
2013	KENINDIA ASSURANCE CO. LTD.	0.63	0.60	0.10	0.06
2014	KENINDIA ASSURANCE CO. LTD.	0.39	-0.93	0.12	0.43
2015	KENINDIA ASSURANCE CO. LTD.	0.62	0.66	0.04	-0.04
2013	KENYA ORIENT INSURANCE	0.90	0.46	0.08	0.06
2014	KENYA ORIENT INSURANCE	0.40	-0.07	-0.12	0.35
2015	KENYA ORIENT INSURANCE	0.92	0.48	0.08	0.03
2013	MADISON INSURANCE CO. LTD.	0.79	0.54	0.08	-0.01
2014	MADISON INSURANCE CO. LTD.	0.91	0.52	0.09	0.34
2015	MADISON INSURANCE CO. LTD.	0.94	0.43	0.08	0.07
2013	MAYFAIR INSURANCE CO. LTD.	0.57	0.58	0.05	0.03
2014	MAYFAIR INSURANCE CO. LTD.	0.14	0.39	-1.69	0.18
2015	MAYFAIR INSURANCE CO. LTD.	0.54	0.38	0.04	0.12
2013	OCCIDENTAL INSURANCE COMPANY	0.66	0.61	0.10	0.04
2014	OCCIDENTAL INSURANCE CO. LTD.	0.37	0.15	-0.25	0.37
2015	OCCIDENTAL INSURANCE CO. LTD.	0.68	0.56	0.10	0.08
2013	PACIS INSURANCE CO. LTD.	0.81	0.47	0.10	0.01
2014	PACIS INSURANCE CO. LTD.	0.36	-0.03	-0.22	0.09

2015	PACIS INSURANCE CO. LTD.	0.82	0.45	0.11	-0.04
2013	PHOENIX OF EAST AFRICA	0.57	0.43	-0.01	-0.14
2014	PHOENIX OF EAST AFRICA	0.12	-0.64	-0.46	0.12
2015	PHOENIX OF EAST AFRICA	0.58	0.53	-0.09	-0.05
2013	TAKAFUL INSURANCE OF AFRICA	0.92	0.33	0.07	-0.09
2014	TAKAFUL INSURANCE OF AFRICA	0.46	3.64	0.08	-1.63
2015	TAKAFUL INSURANCE OF AFRICA	0.87	0.43	0.09	-0.09
2013	TAUSI ASSURANCE CO. LTD.	0.65	0.43	0.08	0.13
2014	TAUSI ASSURANCE CO. LTD.	0.75	0.01	0.25	0.24
2015	TAUSI ASURANCE CO. LTD.	0.64	0.43	0.07	0.08
2013	THE KENYAN ALLIANCE INSURANCE CO. LTD.	0.93	0.39	0.08	0.05
2014	THE KENYAN ALLIANCE INSURANCE CO. LTD.	0.99	-1.41	0.11	1.86
2015	THE KENYAN ALLIANCE INSURANCE CO LTD	0.89	0.49	0.11	0.04
2013	THE MONARCH INSURANCE CO. LTD.	0.86	0.30	0.05	0.00
2014	THE MONARCH INSURANCE CO. LTD.	0.81	0.03	0.03	0.54
2015	THE MONARCH INSURANCE CO. LTD.	0.93	0.38	0.10	0.07
2013	TRIDENT INSURANCE CO. LTD.	0.61	0.68	-0.01	-0.07
2014	TRIDENT INSURANCE CO. LTD.	-0.13	0.17	0.58	0.27
2015	TRIDENT INSURANCE CO. LTD.	0.50	0.91	-0.07	-0.06
2013	UAP INSURANCE CO. LTD.	0.82	0.57	0.08	0.09
2014	UAP INSURANCE CO. LTD.	0.18	0.04	-1.42	0.31
2015	UAP INSURANCE CO. LTD.	0.83	0.63	0.07	-0.04
2013	XPLICO INSURANCE CO. LTD.	0.93	0.19	0.09	0.16
2014	XPLICO INSURANCE CO. LTD.	0.46	0.03	0.01	-0.22
2015	XPLICO INSURANCE CO.	0.96	0.18	0.08	-0.01

	LTD.				

Source: Source: Research Findings