DETERMINANTS OF INSOLVENCY IN SELECTED INSURANCE COMPANIES IN KENYA.

BY

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DECLARATION

This research project is my original work and has not been presented for award of a degree in any other university.

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This project report has been submitted for examination with my approval as the university Supervisor

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DEDICATION

This research report is dedicated to my father Mr. Phillip Waweru, my mother Mrs. Jane Waweru my siblings Charles, Carol and Mary for their support and encouragement throughout the course.

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ABBREVIATIONS AND ACRONYMS

I.R.A	Insurance Regulatory Authority
A.K.I	Association of Kenya Insurers
GDP	Gross Domestic Product
SPSS	Statistical Package in Social Science
OSFI	Office of the Superintendent of Financial Institutions

ABSTRACT

The purpose of the study was to assess determinants of insolvency of Insurance companies in Kenya. This study was guided by the following objectives: Establishing how the type of contract contributes to the insolvency of insurance companies in Kenya, establishing how under reserving contributes to insolvency of insurance companies, establishing how management contributes to insolvency of insurance companies, to establishing how regulations contribute to insolvency of insurance companies in Kenya. The study investigated all the 51 insurance firms registered in Kenya to establish the possible factors that contribute to insolvency. A cross sectional survey design was employed and a mixed research method applied to collect both qualitative and quantitative for the study. The study used questionnaires, interview guides and previous insurance regulator reports to collect information. The completed questionnaires were edited for completeness and consistency, checked for errors and omissions. Quantitative data was analyzed using frequency distribution, mean, percentage. The study findings are to be of value to the IRA in establishing policies and regulations to cope with the problem of insolvency. The total population size was 255 with the sampling size being 152 selected from the various insurance companies comprising of chief executive officers, human resource managers, underwriting managers, claims managers and finance managers. Data was collected using self-administered questionnaire, interview guide and observation method. The collected data was analyzed using Statistical Package for Social Scientist Software (SPSS). The results of the study were analyzed using descriptive and inferential statistics and the results were presented using tables. The findings of the study revealed that factors that contribute to insolvency of insurance companies are type of contract, under reserving, management and regulations. The study recommends that the insurance companies should invoke section 125 of the Republic of Kenya that requires a progressive realization of the enforcement of the one-third-gender rule to ensure that women are represented at the insurance companies as not only a requirement of the law but also balance decision making.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

A stable and vibrant insurance industry of any country among other things provides the population with peace of mind in performance of their daily economic activities and boosts investor confidence (Ambrose & Carroll, 1994). It is from these investments that governments are able to generate revenues to finance their operations that may lead to alleviation of hunger, poverty, achieve universal primary education and generally raise the standard of living of its population. In the fifty years since independence, Kenya's insurance industry has flourished, and by 2013 Kenya had 51 registered insurance companies. 25 wrote non-life business only, 12 wrote life only while 14 were composite (IRA 2012).

However, the absolute figures indicated above can give a misleading impression of the state of the sector in Kenya. In relative contribution from the sector contribute is a mere 3.63% of the Gross Domestic Product in Kenya. A very low contribution compared to other countries like South Africa which has a contribution of 11.6%. In Malaysia, it is estimated that 41% of the population have some form of life insurance in comparison to Kenya that has less than 3.03% of the population insured (Business Monitor International, 2012).

One of the fundamentals underpinning this state of affairs is the instability in the sector arising from insolvency of many firms in Kenya over the last decades. Although the regulation, supervision and development of the insurance industry in Kenya is tasked to the Insurance Regulatory Authority (IRA), the detection and prevention of insurance company insolvencies still remain a great challenge. Over the past 15 years, Kenya has seen the collapse of 10 insurance companies of late Blue Shield Insurance Company and Concord Insurance Company (Muchene, 2013). The consensus is that inadequate price and low loss reserves are the major contributors of insolvency. Other factors of insolvency depend mainly on risk exposure experienced by individual companies. (Kogi, Maragia 2011).

This problem is not peculiar to Kenya alone. Even in developed countries the problem persists. For example in the US and Canadian market, a total of 102 insurance companies have gone under between the period 1970 and 2011. Since 1970, the Canadian and US insurance industry encountered three waves of insolvencies, which coincided with periods of poor profitability (Leverty & Grace, 2011). Two waves of involuntary exit took place after 1990, with 57 percent of all exits since 1970 occurring in the past twenty one years. In addition, there has been a shift in the nature of insolvencies. The number of such institutions under federal supervision has declined.

In addition, all but one of the institutions supervised by the federal government in Canada wound up since 1990 were liquidity risks rather than an insolvency risk, reflecting the mandate of the OSFI to protect Canadian policyholders in instances where the foreign parent insurer failed. The number of company insolvencies supervised by provincial regulators in US nearly doubled from thirteen the 20-year period before 1990 to twenty one in the 21 year period after 1990. However, the difference between insurance industry in developed world and Kenya is that developed world insurance industry is well developed and regulatory measures are solid.

In Africa, within the last decade, certain factors have made unprecedented positive impact on global growth and development of insurance. These include liberalization of world trade, increasing efficiency, advances in Information Technology and the integration of world financial system which now provide unparallel economic, cultural, and recreational opportunities. These developments have created new opportunities for insurance business in Africa. This is since the African market is now open for global exploration and competition. Conversely, this has poses new challenges for insurance regulation in Africa. There have a failure of several insurance companies in Africa which have been connected to weak regulation among other factors. The outcome the complexities affecting the insurance sector in Africa is low insurance penetration as shown in table 1.

The insolvency of insurance companies is not random or completely unpredictable. While some causes of insolvency have remained consistent, others have exhibited changing patterns over time (Pope & Ma, 2008). Improvements in solvency supervision and the winding-up of insurance companies can be achieved through better understanding of the causes of insolvency.

1.2 Statement of the Problem

For consumers, insurance is a key risk management strategy, so it is important to minimize the disruption of an insurance company's insolvency. Insurer insolvency exposes claimants and policyholders to an unexpected financial loss and may potentially be associated with considerable personal and economic cost. Further, the insurance industry is built on policyholder confidence that insurance contracts will be fulfilled and eligible claims paid. Insurer insolvency may therefore lead to reduced confidence in financial institutions.

The performance of the insurance industry in Kenya seems to be poor yet the industry's importance in the financial system cannot be underrated. Insurance provides employment opportunities through its marketing and the distribution networks such as direct insurance companies, insurance brokers, insurance agents, loss assessors, and loss adjustors. Insurance also contributes to the Gross Domestic Product (GDP) of this country because it is vital to the well-being of and smooth functioning of a modern economy. Like most financial institutions, it is a conduct for mobilizing monetary from the surplus economy agents and channelizing them to more efficient uses. Insurance remains one of the major indices for the level of development of a nation's wealth and plays very significant roles in the mobilization of investable resources of an economy. Besides, insurance is an important source of funds in the financial system through its pooling system (AKI, 2012). This is in addition to its basic role of providing protection to the insured against financial loss as well as being a source of security.

However, the Kenyan insurance industry has seen the collapse and placement under statutory management of 10 insurance companies most of them dealing with general insurance (Juma, 2010). The collapsed companies include Kenya National Assurance Company, United Insurance, Standard Assurance, Access Insurance, Stallion Insurance, Lakestar Insurance, Access Insurance, Invesco Insurance, Blueshield Insurance and Concord Insurance. Over the same period however, the industry continued to face a number of challenges that had an influence on realization of further gains in growth. These challenges among others included premium rate undercutting (23%), claims settlement in terms of volume and costs of settlement (9%), delays in premium collection and non compliance with cash and carry system (9%), inappropriate staff skills in some areas (7%), fraud (7%) and quality of intermediary services and customer retention (7%)

(IRA 2013). The massive failure of insurance companies has prompted the need for a study to assess the determinants of insolvency of insurance companies in Kenya.

1.3 Purpose of the study

The study intended to investigate the determinants of insolvency in selected insurance Companies in Kenya.

1.4 Objective of the Study

This study was guided by the following four objectives:

1. To establish how the type of contract contributes to the insolvency of selected insurance companies in Kenya.

2. Establish how under reserving contributes to insolvency of selected insurance companies in Kenya.

3. To establish how management contributes to insolvency of selected insurance companies in Kenya.

4. To establish how regulations contribute to insolvency of selected insurance companies in Kenya.

1.5 Research Questions

The study was guided by the following research questions:

1. How does the type of contract contribute to insolvency of selected insurance companies in Kenya?

2. How does under reserving contribute to insolvency of selected insurance companies in Kenya?

3. How does management contribute to insolvency of selected insurance companies in Kenya?

4. How do insurance regulations contribute the insolvency of selected insurance companies in Kenya?

1.6 Significance of the Study

The study is hoped to help insurance companies and shareholders to come up with performing and profitable insurance companies. The study findings are also hoped to be of value to the IRA which is the chief insurance regulator. This policy and oversight body may have an insight into the factors contributing to demise of insurance companies in Kenya and therefore will be in a better place to establish policies and regulations to cope with those factors found to have a significant contributory effect.

The study is also hoped to be of value to the public who are consumers of the insurance companies' products. The public may be able to understand the tell tale signs of an insolvent company and hence be able to cushion against the risk of loss. Consumers may also be able to distinguish the factors which contribute to insolvency in the insurance sector and as shareholders or stakeholders may influence the factors under their control.

Lastly, it is hoped that the results of the study may be of value to theory and scholarship. There has been a shortage of empirical studies on insurance companies' insolvency in Kenya and this study may be a welcome literary piece on this area. This may help scholars, students and general readers in this area. Future, researchers can also benefit from this study by looking at its limitations and hence coming up with areas for further study.

1.7 Delimitations of the Study

The current study only focused on establish the effect of four broad factors on insolvency of insurance companies as contained in the sub section 1.5 research questions only. It was not possible to enumerate all factors affecting insolvency. The study also considered the insurance firms currently in operation as it was not possible to investigate the firms which went under.

1.8 Limitations of the Study

Some of the respondents were not comfortable to provide correct data sensitive to their organization. To deal with the challenge, an introductory letter was attached to the research questionnaire detailing the importance of the study and the need of maintaining confidentiality. This motivated the subjects to provide honest answers to the study questions.

1.9 Assumptions of the Study

The study made the following assumptions;
The study subjects would provide accurate information on the major factors that have rendered insurance companies in Kenya insolvent. All the study subjects would give unbiased information in the questionnaire.

1.10 Definition of Significant Terms used in the Study

Agent: This is a salesperson that represents an insurance company or a customer when selling or buying insurance products.

Contract: Refers to an agreement entered between any two parties.

Fraud: It refers to falsification of claim information by policy holders, employees or management personnel of the insurance companies.

Insolvency: In this study, insolvency refers to inability of insurance companies to honor claims from their policy holders or debts from their creditors.

Management: In the study refers to the way a Company is run on a day to day.

Regulation: This covers the effectiveness of the insurance regulatory authority in enforcement of regulations in the insurance sector concerning investment, liquidity, claims and governance.

Risk Management: It is how the management of the insurance companies in Kenya deals with liquidity, investment and operational risks in their insurance companies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter introduces the literature reviewed in the study. It was organized as follows: the development of insurance industry in Kenya, the section also reviewed literature on the factors contributing to insolvency of insurance companies which include management, regulations, under reserving and the type of contract. The section also identified the theoretical arguments underlying the insolvency problem, and finally the conceptual framework.

2.2 An overview of Insurance Industry in Kenya

During pre colonial Kenya members of a community pooled together resources to create a "social insurance fund". The "premiums" ranged from material to moral support or other payments in kind. From the fund, "drawings were made out" to support the few unfortunate members exposed to perils (Azevedo, 1993). However, the history of the development of commercial insurance in Kenya is closely related to the historical emancipation of Kenya as a nation (Throup, 1988).

With the conquest of Kenya as a British colony complete, settlers initiated various economic activities, particularly farming, and extraction of agricultural products (Huxley, 1990). These substantial investments needed some form of protection against various risk exposures. British insurers saw an opportunity in this, and established agency offices to service the colony's insurance needs. Prosperity in the colony soon justified expansion of these agencies to branch networks with more autonomy, and expertise to service the growing insurance needs. By independence in 1963, most branches had been transformed to fully-fledged insurance companies (Maxon, 1993).

Insolvency of firms in Asia has also been studied. The insolvency in Japan, Singapore, Malaysia and Taiwan increased greatly in 1997 during the Asian Financial crisis (Rejda, 2001). The factors noted to influence insolvency in Asian general insurance companies include firm size, investment performance, liquidity ratio, surplus growth, combined ratio, and operating margin.

The factors that significantly affect life insurers' financial health are firm size, change in asset mix, investment performance, and change in product mix, but the last three factors were more applicable to Japan. The financial health of insurance companies in Singapore seemed to be significantly weakened by the Asian Financial Crisis.

The study by Adams, Lin and Zou (2011) indicated that the insurance industry in different Asian economies is at different stages of development, and hence they require different regulatory guidelines. The insurance sector throughout the world is going through a dynamic environment where efficiency and competitiveness hold the key to survival. The Indian insurance market is the fifth largest in Asia in terms of total premium after Japan, Korea, China, and Taiwan. Although India has the second largest population in the world, it has one of the lowest penetration rates for property and casualty insurance in Asia (measured by premium as a percentage of GDP). Hence India is referred to as a high potential, low penetration insurance market. With increasing liberalization and foreign participation, the risk of insolvency among Indian insurance firms has gone up substantially. So, there is a strong need of developing a framework for predicting insolvency risks in this sector.

According to Suela, Darrell (2007), the major causes of insolvency in Canada were as a result of inadequate pricing and marginal loss reserves, new entrants in the industry were also prone to fail as compared to companies who had been in existence for more than ten years. It was also established that most of the companies closed between the late nineteen ninety's and early two thousand.

In the fifty years since independence, Kenya's insurance industry has flourished, and by 2013 had 51 registered insurers. Kenya's insurance industry leads within the East Africa Community (a trading block of Kenya, Uganda and Tanzania), and is a key player in the COMESA region, (Common Market for Eastern and Southern Africa. However, although insurance industry is relatively developed in Kenya, the insurance penetration is low at 3.16% of GDP (AKI, 2012). Probably due to the misconception that insurance service is for the elite businesses in the society. This is so as it started by colonial masters who were highly leveled by the natives Africans.

2.3 Type of contract and its contribution to insolvency

A contract is a specification of actions that named parties are supposed to take at various times, generally as a function of the conditions that hold (Shavell, 2004). An example is insurance contract under which (risk-averse) insured pay premiums and is covered against a specified risk by an insurer.

Some party might have incentive to behave opportunistically at the expense of others. Shavell (2004) argue that in an ideal world, people can write a complete contingent contract that induces all the parties to take the `right' actions in every possible state of world, which leads to a Pareto efficient outcome. In complete contract all state of nature are considered and every action is considered.

However, it is not possible in reality to determine each state of nature. Implying that the pareto efficiency finds little application in the real world as the world operate with asymmetric information which in most cases leads to the application of incomplete contracts in project (Shayell, 2004).

An incomplete contract has gaps, missing provisions, and ambiguities and has to be completed (by renegotiation or by the courts) with strictly positive probability in some states of the world. (Hart,1995). According to this definition most real world contracts are incomplete: they are not contingent on all relevant, publicly available information they are short-term they are renegotiated frequently they are interpreted and completed by the courts of law. Since insurance industry deals with incomplete contracts, utmost good faith and care are required when determining the kind of contract to enter into. Some contracts are prone to risk than others. It is therefore prudent to investigate whether the type of contract entered by the firms have any bearing to insolvency.

According to Hoyt, (1994) great attention has been paid to the options embedded in insurance contracts, especially in those nontraditional contracts which account for a significant part of insurance market, i.e., participating insurance contracts, universal life insurance and unit-linked insurance. Embedded or implicit options often provide policyholder the right to make a change on the time or amount of claims. Nevertheless, traditional approaches in actuarial science usually underestimate the value of these options (Staking &Babbel, 1995).

However, Schich (2008) contends that underestimation of these options for a long while could leave insurance companies in a terrible operational condition. Embedded options tend to increase the contingent liability of insurance companies. Without enough liability reserves, insurance companies could easily get trapped in a solvency crisis or even go bankrupt as economy becomes dramatically unstable.

In 2006, when the subprime crisis took place, a great many insurance companies suffered from disastrous impact, which mainly laid in the risk of insolvency. Losses caused by subprime derivatives not only created great liquidity risks but also jeopardized the confidence of policyholders on insurance companies' solvency, which would lead to large-scale surrender and eventually destroy the least hope for insurance companies to go through crisis. Studies based on a generalized form were mainly about the evaluation method of embedded options (Carson and Hoyt, 1995). They all overlooked the specific features of different insurance contracts, for which these researches are less adaptable in practice.

For researches that focus on particular insurance contracts, most of them are about unit-linked contracts and participating contracts. As for equity-linked products, large contributions have been made by financial and actuarial researchers since the pioneering work in. They recognized the option-like features in equity-linked products and applied the option pricing theory on their evaluation model. Further researches in this direction were focusing on all kinds of options embedded in unit-linked contracts such as minimum guaranteed interest rate and payment. The problem of valuing another kind of option embedded in equity-linked products, surrender option, has also been tackled, under different assumptions and by various methodologies (Carson and Hoyt, 1995).

Babbel (1995) note that as another kind of insurance contracts which also make up a significant part of the life insurance market, participating contracts also attracts great attention from researchers. In the first place, scholars started their researches with single-period models. Briys and de Varenne (2007) focused on a particular participating insurance sold in French market and managed to valuate both liability and equity of this contract based on classical contingent claim theory (Santomero&Babbel, 1997)

Briys and de Varenne (2007), indicated that they made further effort on valuation of participating insurance with guaranteed interest rate and surrender option embedded. Based on this model, Grosen and Rigensen(1999) adopted a barrier option framework to investigate the impact of regulatory intervention rules for reducing the insolvency risk of the policies . However, all these researchers are not able to deal with \cliquet-style" contracts with annual bonus. Therefore, scholars also made attempt to construct multi-period models. Grosen and Rigensen (1999) provided a multi-period model to valuate liability of participating insurance contract with \cliquet-style" bonus option and surrender option embedded.

After considering guaranteed interest rate, bonus option and surrender option, Grosen et al (2006) proposed to use a finite difference approach for pricing contract. Considering a specific participating scheme used in a particular country, Ballotta (1999) made a further step in this direction. They considered the valuation problem for one of the smoothing scheme commonly used by insurance companies in the UK and set up a market model based on the use of a Levy motion as relevant process for the value of underlying reference portfolio's returns. Dealing with this same smoothing scheme, Ballota, Haberman and Wang (2009) further extended the techniques they developed earlier to allow for the default option. Researches mentioned above all focused on evaluation of participating policy with a given guaranteed interest rate. Aguilar and Xu (2007) provided a way to determine optimal guaranteed interest rates and premiums which maximize insurers' profit. In his model, he assumed rates of return on assets were log-normally distributed and applied B-S formula to price surrender option.

2.4 Under reserving and its contribution to insolvency

An insurer needs to set aside enough of the premiums to allow fully for the cost of all the claims that will arise from that business. This means setting an adequate reserve for each claim that is reported and allowing for claims that have not yet been notified. If these figures are deliberately or accidentally set too low then the insurer will look to have made more profit than it actually has. This extra profit may not then be available when the claims are required to be paid and can lead to the insurer becoming insolvent.

Young (1996) notes that there is often pressure for an insurer to declare good results. Senior management can put a great deal of pressure on those people setting the reserves to keep them to a minimum. On classes of business such as liability where the claims can take some time to emerge and be notified and where a claim can take many years to settle it can be extremely difficult to set the reserves. These two factors demonstrate that insolvency due to inadequate reserves is not a remote risk. It is probably a factor in most insolvencies to a greater or lesser extent (Carson and Hoyt, 1995).

According to Santomero and Babbel (1997) researched under reserving as a key component cause of company failure. One of the factors leading to under reserving is the absence of adequate internal controls. For example if a company had a low claims threshold of (£10k), above which the claim would have to be reported to the CEO, this could develop into a reluctance to establish reserves above the £10k threshold. Solid reporting criteria are necessary, coupled with a no blame culture to engender trust and encourage realistic reserving. This demonstrates the complex nature of managing a company in a changing market. It emphasizes the interdependence between the management subsystem, tasks subsystem, human subsystem and control subsystem. It illustrates the influence of different organizational interests between management and staff and emphasizes the impact that different stakeholders have on a company. What is clear is that a lack of fit between the subsystems can cause a company to fail (Santomero & Babbel, 1997).

2.5 Management and its contribution to insolvency

In many ways the insurance industry is easy to enter. You do not need to have a big building, lots of staff or any machinery. All you need to do is satisfy the regulatory authorities to let you start a business, part of which will include having sufficient capital. Then it is simply a case of convincing people to give you money on the promise that you will pay their claims. The cash comes in up front and paying the claims may be year’s away (Santomero & Babbel, 1997).

Lee (2008) indicated that there is great scope within this for dishonest and corrupt individuals to extract money from the premiums and direct it to their own personal wealth such that the claims cannot be paid when they come in. The sums involved can be huge. Hundreds of millions of pounds of premiums can be collected by relatively few people and even siphoning off a small percentage of this is a lot of money (Schich & Kikuchi, 2004).

According to Brigham & Philip, (2004) cutting prices can quickly generate large volumes of business. If reserves are understated, deliberately or not, profits can appear large. It is not difficult to see how someone running an insurance company, who has a personal financial interest in it, could be motivated by greed to follow this course of action. This will be exaggerated if the individual does not have a concern for the long-term health of the company and the policyholders.

Most of the reserves and free capital that an insurer holds will be invested. In deciding where to invest the funds the insurer has to balance the desire for greater expected returns with the need to limit the investment risk. The danger is that the value of the assets drops to below that of the value of the liabilities. This risk is exacerbated if an insurer has limited free capital to start with (Brigham & Philip, 2004).

A sudden drop in asset values (eg a stock market crash) could significantly affect solvency. A concentration of assets in any one particular class is particularly prone to this problem. If one asset forms a high proportion of the portfolio then a drop in the value of that asset (or even the total failure of that asset) may have serious consequences for solvency (O'Connor, 2000). An insurer also needs to be concerned with the liquidity of its assets. It will need to pay claims and if there is a particularly large loss it may need to have a large quantity of funds available. If the assets cannot be turned into cash quickly then the insurer may not be able to pull together enough cash to pay the claims. Another possibility is that selling the assets causes their value to drop, which in turn means that the insurer has to liquidate more assets (Black, Wright & Bachman, 1998).

Insurance is a complicated business. Although some policies are relatively simple, some are much more difficult to understand clearly. Even some of the concepts, such as the methodology for computing IBNR reserves, may be hard to grasp. Therefore there is great scope for companies to go wrong simply through sheer incompetence. This could be at a senior or a junior level. For example, it is easy to give the message to staff to grow the business. It is much harder to understand all the ramifications of that message and whether or not profitable growth will be possible. A simple message to grow may kick off a chain of events that will cost the company dearly (Black, Wright & Bachman, 1998).

Another example would be one single risk, incorrectly understood and poorly priced, or badly worded policy, that gives a company a far higher exposure than it thought it had to a risk Alternatively there might be an accumulation of risk that the company might not be aware of and hasn't bought reinsurance for eg a predominance of properties in one area that might be hit be a freak weather event (Schich & Kikuchi, 2004).

2.6 Regulations and insolvency of insurance firms

The globalization of insurance and reinsurance in particular, means that companies have some flexibility to choose their regulatory environment. This is particularly true for new entrants. The regulatory environment is just one consideration to be taken into account when deciding where to base a new company, but there is a risk that new entrants will be attracted to the less well-regulated environments. Just as electric current finds the path of least resistance, new entrants will seek out regulatory environments that offer least resistance. This lower resistance may be in the form of easier and quicker authorization, lower regulatory costs, lower capital requirements and less onerous on-going requirements to meet approval (Redman et al, 1992).

This would suggest that unilateral changes to the way one particular country is regulated will simply result in business being diverted to a different regulatory environment. Put another way, more stringent regulation in one country may reduce the number of company failures in that particular country, but it will not prevent the failure from occurring; it will just take place somewhere else (O'Connor, 2000).

There have been several European Directives over the last few decades to try to harmonize the form of regulation applied across Europe, but no attempt has been made to harmonize the regulation with those outside Europe. The areas under prudential supervision cover assets, liabilities, capital adequacy, accounting, derivatives and reinsurance. Any Member States are allowed a certain degree of freedom in establishing more stringent rules than the minimum requirements laid out in the directives. This flexibility has meant that some countries have a solvency regime that is stronger than others (Redman et al, 1992).

Various types of models are used in many countries Kenya included, the most advanced countries being those where the regulator has suggested the use of such models. The main types of model used include inadequate reinsurance, rapid growth, poor cost control, insufficient investment premiums, fraud management and under reserving risks (Redman et al, 1992).

In the European Union the Statutory Minimum Solvency Margin is determined as a proportion of the business written based either on premiums received or on claims incurred. The advantages of this approach are that it takes into account each company’s individual experience and it is simple to administer. However, the disadvantages are that it penalizes companies that hold adequate reserves and/or those that charge adequate premiums compared with those that do not, is does not distinguish between companies that write similar volumes but different mixes of business and it does not distinguish between insurers and reinsurers (Brigham & Philip, 2004).

An alternative method is to consider the risk profile of the business written. This is the Risk Based Capital (RBC) approach, where the solvency margin is calculated as a proportion of the volatility of past profits. The RBC recognizes the volatility inherent in the business and it penalizes companies that hold inadequate reserves or that writes business on inadequate rates (O'Connor, 2000).

The disadvantages of RBC are the practical difficulties of deciding and include the definition of profit, the definition of volatility (e.g. does it refer to observed variation in experience from the company’s own average or the variation about the industry average?), the period over which volatility is measured, how to allow for reinsurance and the security of the reinsurers used and whether the same proportion should be applied to the volatility of all companies (Brigham & Philip, 2004)

2.7 Theoretical framework

A theoretical framework is a collection of interrelated ideas based on theories. It is a reasoned set of prepositions, which are derived from and supported by data or evidence. It accounts for or explains phenomena. It attempts to clarify why things are the way they are on theories (Kombo and Tromp, 2000). This section therefore discusses the underlying theories underpinning the insolvency problem in insurance industry in Kenya.

Agency Theory and insurance company insolvency

Several articles written in the 1970s did much to define the theory of principal-agency in the field of economics. In the first article (Spence & Zeckhauser, 1971), the theory was framed as a question about insurance, but it turned out to be central to understanding the effects of information asymmetries in other settings. By possessing incomplete and imperfect information, market participants do not achieve the optimal allocation of resources that would be possible in the case of possessing complete information. On the other hand, timely and relevant information represents a product for which the appropriate market price must be paid (Bolton & Dewatripont, 2005)

In modern corporations, the two sides engaged in a contract may have different goals and have different levels of information. This problem is called the “principal-agent” problem. Agents sometimes have personal goals that do not coincide with the goals of the principal, thus the principal must achieve its own, but also the needs of agents. One way is to motivate the agent using rewards, prohibitions and penalties. In this case, the qualitative needs assessment and evaluation of costs results in greater efficiency and faster problem solving. Insurance firm operate mostly through agents. However, this mode is not without problems (Bolton & Dewatripont, 2005)

Agency problem occurs when a conflict arise when people the people (agents) entrusted to look after the interests of others (the principles) use the authority or power for their own benefit instead. It is a pervasive problem and exists in practically every organization. Organizations try to solve it by instituting measures such as tough screening processes, incentives for good behavior and punishment for bad behavior, watchdog bodies, and so on but no organization can remedy it completely because the cost of doing so sooner or later outweigh the worth of the results (Daòhel, 2002),

Very classical field for the application of agency theory is the insurance, from where actually originates a lot of initial motivation and terminology used in the analysis of principal agent problems. The critical analysis of the mainstream agency theory approaches is provided by Daòhel (2002), who takes issues with some traditional informational assumptions used in the classical literature dealing with agency problems in insurance. An interesting alternative survival probability approach to insurance and principal-agent problem is provided by Hlaváèek and Hlaváèek (2006a, 2006b). The insurance is only one of the branches of financial services, which are successfully analyzed with the use of agency theory.

Another area is the analysis of the financial distress of the banks and the problems connected with the exit from the banking industry. Besides these contributions dealing with the agency theory issues in the areas of economic of transition, ownership analysis and law and economics, we may identify other widely ranging applications of agency theory in the Czech economic journals. Thus Marek (2004) concentrates on agency theory in the corporate governance, which is one of the most traditional areas for the implementation of the agency theory. Marek (2004) is especially interested in the agency costs, in their influence on value of the firms and their measurement. He also mentions some interesting illustrations of agency cost theory in connection with privatization in transition economies. Direct application of agency theory to a specific field provides Krabec (2005) who identifies sources of principal-agent problems in the health care system.

2.8 Conceptual framework

Mugenda and Mugenda (2003), define conceptual framework as a hypothesized model identifying the concepts under study and their relationship. Conceptual framework provides abstract basis for thinking about what we do and about what it means, it is influenced by the ideas and research of others. In this regards it forms an overview of ideas and practices that shape the way this study was done. This section gives the theoretical structure used in this study. It takes cognizance of the theoretical and empirical literature reviewed. Based on the literature reviewed, insurance company’s liquidity is influenced by the exogenous characteristics of the insured and programme specific characteristics.

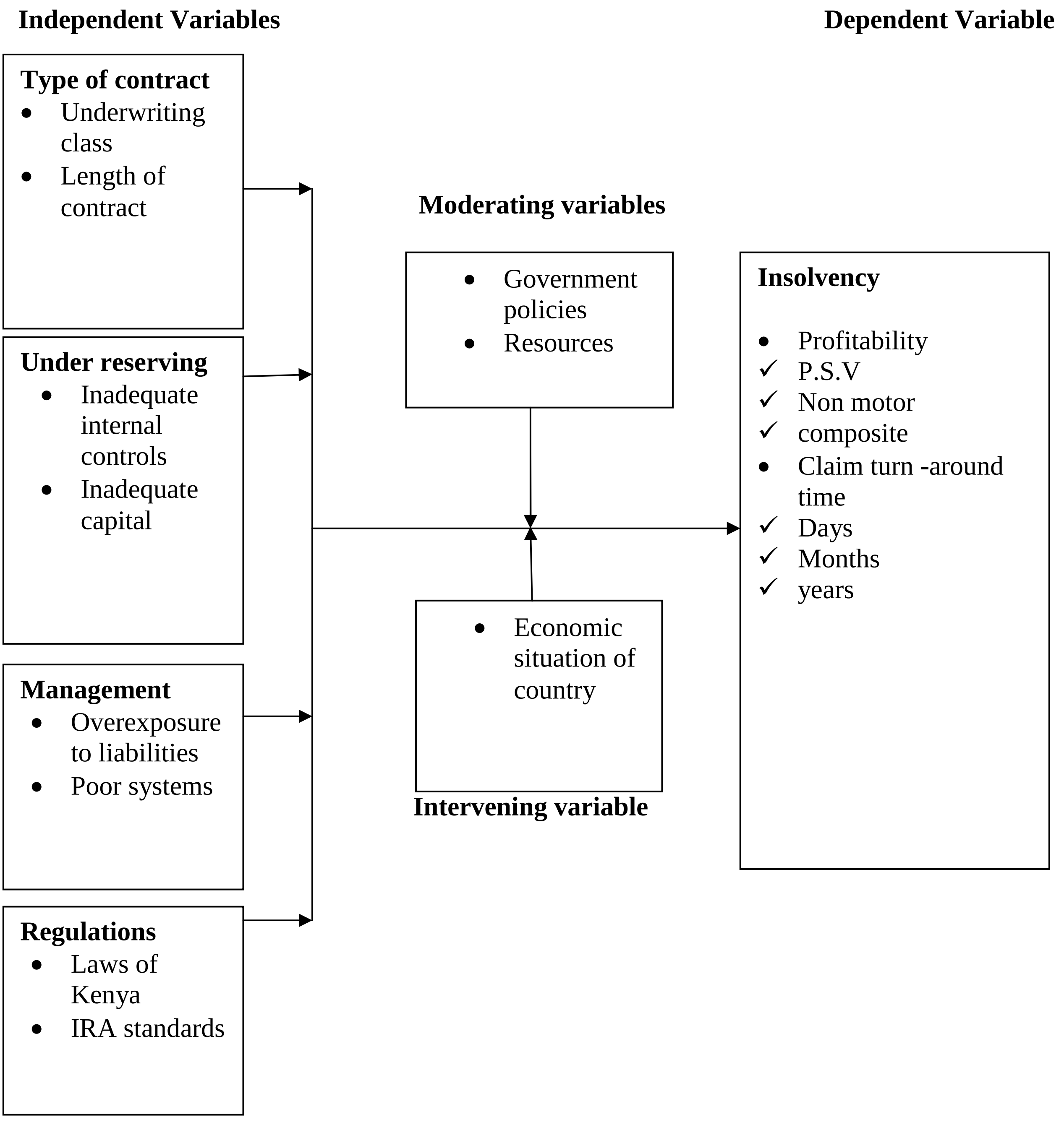

Figure 1: Conceptual framework

The dependent variable in this study was insolvency of insurance companies. Insolvency of insurance companies is influenced by several factors that constitute the independent variables. Based on the literature reviewed the factors that contribute to insolvency of insurance companies include type of contract, under reserving, management and government regulations.

The moderating variables, which according to Kothari (2004) are independent variables that are not related to the purpose of the study but can have an effect on the dependent variable, in this study the moderating variable were the economic situation of country. Figure 1 shows the relationship between the independent variables and the dependent variable. To ensure that moderating variables did not influence the dependent variable, the variables were controlled.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter introduces the process which were employed in carrying out this study. It contains the following sections: research design, target population, sampling or the respondents of the study, research instruments methods of data collection procedures and methods of data analysis and ethical issues.

3.2 Research Design

A cross sectional survey design that employed both qualitative and quantitative was adopted for the study. This design was opted since descriptive research describes data and characterizes about the population or the phenomenon being studied. Kothari (2003) also recommends descriptive research design as it allows the researcher to describe, record, analyze and report conditions that exist or existed.

According to (Mugenda and Mugenda, 1999), the purpose of descriptive research is to determine the way things are, the design attempts to obtain information that describes the existing phenomenon and involves quantifiable information from the sample. In addition descriptive research involves gathering data that describes events and organizes, tabulates, depicts and describes the data collection (Glass and Hopkins, 1984).

3.3 Target Population

A population is the entire group of individuals, events or objects that have a common observable characteristic (Mugenda and Mugenda 1999).The total population consisted of 51 registered insurance companies in Kenya (see appendix III). The respondents were a selected from various levels of these companies. Since the sample was accessible, and target population the same, population validity existed and generalization of the findings was made with confidence.

3.4 Sample Size and Sampling Procedure

Sampling is the process of selection of appropriate number of subjects from a defined population (Kothari, 2008). This study used systematic random sampling method. Mugenda and Mugenda (1999) argued that the bigger the sample, the more representative of the population it is. In this case, 50% of the insurance companies was selected and it is from these that the respondents were drawn. The sample size was 26 insurance companies which is 50% of the total number of insurance companies registered in Kenya. From each insurance company, one top manager and three lower level managers were randomly selected. This gave a total of 104 respondents.

3.5 Methods of Data Collection

Data collection instruments included a survey self administered questionnaire that was used to interview top level management and lower level managers, an interview guide was also used in areas where the interviewer felt the answers given were not sufficient. Thirdly, document analysis guide was used to gather more secondary in the study.

Data collection was undertaken for a period of one month. Questionnaires were administered after briefing respondents on the objectives and assuring them of confidentiality.

The questionnaire was self-administered and was delivered by the researcher and agent to the insurance Companies, requesting them to complete it.

After completion the questionnaires were picked. This effort of personally delivering the questionnaire was intended to give high rate of response than when posted. The questionnaire consisted both closed questions -provide boxes for the respondent to tick (giving easily coded information), and open questions - provided a box for the respondent to write answers in.

After beginning with general questions, subsequent questions were specific questions that enabled probing for details. Data registers from the Insurance Regulators was also be used since it was relevant in gathering more information on the Insurance companies.

The study also paid attention to question phrasing and the order of questions. Many researchers recommend that general questions be asked first, especially easier, less threatening questions, and that more controversial or sensitive questions are left for the middle or end of the interview (Berg, 2009; Esterberg, 2002). The principal researcher checked all the data for completeness and accuracy.

3.6 Validity and Reliability of the Instruments

Validity of a questionnaire refers to the extent to which it measures what it claims to measure Mugenda & Mugenda (2003). Validity establishes the relationship between data and the variable of interest. Traditionally validity is defined as degree which an instrument measures what it purports to measure (Kothari, 2006). In a research study, the data can be collected through surveys (interviewing, questionnaires), observation or experiments (Cooper &Schindler, 2003).

3.7 Reliability of the Instruments

Mugenda and Mugenda (1999) defines reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated trials. Berg (1998) explains that, the use of consistent and systematic line of questions for even unanticipated areas is particularly important for reliability and for possible replication of a study. In order to ensure reliability, the questionnaire was composed of carefully constructed questions to avoid ambiguity and in order to facilitate answers to all the research questions. The questionnaire was then pre-tested in a pilot study through a sampling of five registered insurance companies whereby one top manager and one low level manager was selected. This gave a total of 52 respondents in the pilot study. After piloting data was analyzed which corrections and adjustments were done; this ensured reliability.

3.8 Data Analysis techniques

Analysis involved the production and interpretation descriptive data to come up with frequencies whose proportions were presented on tables to summarise the data and facilitate generation of information. Frequencies and proportions were be generated from data entered on SPSS version 17.0. Measure of central tendency was generated to describe the data.

Associations between the variables under study were tested by Pearson's Chi square test to show significance of the relationships between the independent variables which were type of contact, under reserving, management and regulations of insurance companies and the dependent variable which was factors contributing to insolvency of insurance companies variables.

3.9 Operational Definition of variables

Table 3.1 : Operational Definition of Variables

Objective	Variable	Indicator(s)	Measurement	Scale	Data Collection Method	Data analysis
To establish whether type of contract contributes to insolvency of insurance companies	Independent Type of insurance contract	Length of contract Type of business underwritten	Number of contract years	Ordinal	Questionnaire	Descriptive statistics
To establish if under reserving contributes to insolvency of insurance companies	Independent Under reserving and insolvency	Customer vetting Financial disclosure of insurance companies	Credit history Financial status of company	Ordinal	Interview guide	Descriptive statistics
To establish if management contributes to insolvency of insurance companies	Independent Role of management in insolvency	Formal education & product knowledge of management Management & shareholders' interests	No of trainings attended	Ordinal	Questionnaire	Descriptive statistics
To establish if regulations contributes to insolvency of insurance companies	Independent Regulations and insolvency	Company investments Rate of genuine claims reported	Government regulations	Ordinal	Questionnaire Interview guide	Descriptive statistics
Insolvency	Dependent Insolvency	Profitability and Claim turnaround time	Profitability and Claim turn - around time	Ordinal	Financial reports	Descriptive statistics

3.10 Ethical Consideration of the Study

Participation was voluntary, and the records were stored confidentially in a lockable cabinet which was always closed and only persons involved in the research had access to them.

Any publications or presentations from this study do not refer to the individual respondent, and anonymity was maintained by not publishing the names and addresses of the data sources.

There was also grouping of data in a way that obvious characteristic of the respondent would not become known, by code numbers instead of names.

Informed consent from the respondents and finally clearance to carry out the study was obtained from Institutional Research Ethics Committee (IREC) at Nairobi University.

The researcher also obtained a letter from University of Nairobi allowing him undertake the study and an introductory letter explaining the purpose of the study

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter presents findings from the study on the assessment of determinants of insolvency of insurance companies in Kenya. This chapter begins with presenting background information of the respondents and then their experiences with the determinants of insurance companies in Kenya, the chapter also analyses, presents and interprets findings of the study in relevance to the determinants of in solvency of Insurance Companies in Kenya.

4.2 Questionnaire Return Rate

Out of the one hundred and four (104) questionnaires administered, ninety seven (97) constituting 93.3% response rates were collected.

The response rate from the top and lower level management is given in the Table4.1:

Table 4.1: Response Rate

No.	Level	TOTAL	Percent
1	Top Level Management	**53**	**54.6**
2	Lower Level Management	**44**	**45.4**
	TOTAL	**97**	**100**

From the questionnaires it was noted that top level management responded to the questionnaires at the rate of 54.6% while the low level management responded at the rate of 45.4%.

According to American Association for Public Opinion Research (AAPOR, 2008), the 93.3% which is a high response rate from a random sample of 104 is considered preferable to a low response rate from sample above 104.

4.3 Characteristics of the Respondents

This section gives an analysis, presentation and interpretation of the respondents' gender, age, level of education, work experience with the organization, years of the company operation and the underwriting business.

4.3.1 Gender of Respondents

Table 4.2 shows the distribution according to gender of the respondents.

Table 4.2: Sex of the respondents

Gender	Frequency	Percentage
Male	62	63.9
Female	35	36.1
Total	**97**	**100.0**

In all, 63.9% of the respondents were male and 36.1% female, indicating an unbalanced gender distribution at the insurance companies.

4.3.2 Age of Respondents

Table 4.3 shows the distribution of the respondents in the insurance companies according to their age.

Table 4.3: Distribution of Age of Respondents

Age	Frequency	Percentage
25 – 35	21	21.6
36 – 55	68	70.1
56 and above	8	5.3
Total	**97**	**100.0**

The highest percentage of respondents (70.1%) was between age 36 – 55 while the lowest was 56 and above years and stood at 21.6%. This is an indication that the youth are more engaged in insurance underwriting than the elderly.

4.3.3 Level of Education of Respondents

Table 4.4 shows the level of education that the insurance respondents had attained before employed at their current workstation.

Table 4.4: Distribution of level of education of respondents

Level of education	Frequency	Percentage
Certificate	17	17.5
Diploma	29	29.9
Undergraduate	43	44.3
Post Graduate and above	8	5.3
Total	97	100.0

Table of 4.4 presents levels of education of the respondents. It indicates that 100.0% o had formal education. Those with postgraduate and above were the lowest at 5.3% while those with undergraduate degree were the highest at 44.3%. Certificate and Diploma holders were at 17.5% and 29.9% respectively.

4.3.4 Respondents underwriting work experience

Table 4.5 shows the level of education that the insurance respondents had attained at their current workstation.

Table 4.5: Respondents work experience in underwriting

Work experience	Frequency	Percentage
Less than 3 years	28	28.9
3 to 5 years	54	55.7
5 to 7 years	12	12.4
Over 7 years	3	3.0
Total	97	100.0

According to table 4.5, 54 respondents representing 55.7% of the respondents had worked in the insurance industry between 3 to 5 years, while those who have worked for less than 3 years were at 28.9%. It was noted that those who had worked for between 5 to 7 years and over 7 years were at 12.4% and 3% respectively.

4.3.5 Type of insurance underwriting

Table 4.6 shows the business underwritten by the insurance respondents at their current workstation.

Table 4.6: Respondents work experience in underwriting

Underwriting type	Frequency	Percentage
Non – Life	32	33
Life	32	33
Composite	33	34
Total	97	100.0

The study sought to know the type of business underwriting undertaken by the respondents insurance organization, it was revealed that a slight majority at 34% were underwriting composite while those underwriting life and non – life were at 33%.

4.4 Factors that contributes to insolvency of insurance companies

This section gives the analysis, presentation and interpretation of responses on the factors that contribute to insolvency of insurance companies. The responses were distributed to cover type of contract, under reserving, management and regulations.

4.4. 1 Type of contract and Insurance Insolvency

The respondents rating on the extent to which type of contract contribute to insolvency of insurance companies in Kenya were recording and table 4.7 gives the respondents scores. The ratings were done using a 5-point likert scale whose numerical values was in ascending order ranked from 1-to-5 with decreasing order of strength of the level of agreement assigned to each of the corresponding statement-factors given. Strongly Agree and Agree were combined into one scale while strongly disagree and disagree were also combined into one scale. After the data was coded and analysed, findings from the sampled staff responses was presented as shown in table 4.7

Table 4.7: Extent to which type of contract contribute to insolvency of companies

Scale	The combined likert	Frequency	Percentage
10 – 20	High extent	88	90.7
21 – 32	Moderate	5	5.2
33 – 50	Low extent	4	4.1
	Total	**97**	**100.0**

From table 4.7, majority at 90.7% agrees that type of contract contribute to insolvency of companies in Kenya while 5.2% reserved their responses and 4.1% indicated that to a low extent it contributes to insolvency.

To answer research question number 8 sort the opinion of the respondents on the type of contract as a contributor to insolvency of insurance companies, the sampled employees were asked to rate the statements that included incomplete contract, utmost good faith, risk of contracts, contract investigation and underestimation. The ratings were done using a 5-point likert scale whose numerical values was in ascending order ranked from 1-to-5 with decreasing order of strength of the level of agreement assigned to each of the corresponding statement-factors given. Strongly Agree and Agree were combined into one scale while strongly disagree and disagree were also combined into one scale. After the data was coded and analysed, findings from the sampled staff responses was presented as shown in table 4.7.

Table 4.8: Distribution of contribution of type of contract to insurance insolvency

Scale	The combined likert	Frequency	Percentage
10 – 20	Agree	83	85.5
21 – 32	Neutral	6	6.2
33 – 50	Disagree	8	8.3
	Total	**97**	**100.0**

The respondents rated the type of contract as a contributor to insurance insolvency at 85.5% while those who felt that it was not a contributor were 8.3% while those not able to deliver a score were 6.2%.

The mean given by SPSS as 1.03 was in the scale of 10 - 20 and therefore can be interpreted to denote the fact that most of the sampled respondents agreed that type of contract is a contributor to insolvency of insurance companies in Kenya

The standard deviation value was used to determine the variability of the responses. The standard deviation given by SPSS was 0.29 therefore an indication that there was no significant variation in the responses among the sampled respondents

4.4.2 Under reserving and Insurance Insolvency

The ratings were done using a 5-point likert scale whose numerical values was in ascending order ranked from 1-to-5 with decreasing order of strength of the level of agreement assigned to each of the corresponding statement-factors given. Strongly Agree and Agree were combined into one scale while strongly disagree and disagree were also combined into one scale. After the data was coded and analysed, findings from the sampled staff responses was presented as shown in table 4.8.

Table 4.8: Perceptions on under reserving as contributor to insurance insolvency

Rate of Under reserving	Frequency	Percentage
Agree	89	91.8
Neutral	8	8.2
Disagree	0	0.0
Total	**97**	**100.0**

Table 4.8 indicated that a greater percentage of respondents (91.8%) considered under reserving is a contributing factor to insurance insolvency in Kenya while 8.2% reserved their opinions while none of the respondents (0.0%) dissented.

4.4.3 Management and Insurance Insolvency

Table 4.9 indicates the perceptions of the respondents on management as a factor that contributes to insurance insolvency in Kenya.

Table 4.9: Perceptions on management as contributor to insurance insolvency

Rate of Under reserving	Frequency	Percentage
Agree	73	75.3
Neutral	24	24.7
Disagree	0	0.0
Total	**97**	**100.0**

The greater majority at 75.5% agreed that management contributed to insurance insolvency in Kenya. The overall impression was that the management was a major contributor as there is none of the respondents who disagreed and those who reserved their opinion were 24.7%. It should be noted that these responses were based on respondents' previous experience or dealings with the insurance companies.

4.4.4 Regulations and Insurance Insolvency.

Table 4.10 indicates the perceptions of the respondents on regulations as a factor that contributes to insurance insolvency in Kenya.

Table 4.10: Perceptions on regulations as contributor to insurance insolvency

Rate of Under reserving	Frequency	Percentage
Agree	47	48.5
Neutral	5	5.2
Disagree	45	46.3
Total	**97**	**100.0**

Out of the total respondents interviewed, 48.5% of the respondents maintained that the regulations was a factor contributing to the insolvency of insurance companies in Kenya and 46.3% disagreed that this was a factor while 5.2% of the respondents gave a neutral opinion.

This suggests that the respondents were divided on regulations as a contributor to the fact that it influences insurance insolvency.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the findings, discussion, conclusions reached and recommendations following the objective of the study. This study set to assess the determinants of insolvency of insurance companies in Kenya.

5.2 Summary of the findings

Relying on the responses given by the respondents, the researcher came up with findings which were used to make conclusions and give recommendations. The main findings as based on the result on data analysis in chapter four are given in Table 5.1 below:

Table 5.1: Summary of findings

Demographic Characteristics	Finding
Gender	• Majority 63.1% of the respondents were male while female were 36.1% indicating unbalance gender distribution at the insurance companies.
Age of respondents	• Majority of the respondents were between the age of 36 and 55 at 70.1% indicating that majority of those engaged in underwriting are the middle youths compared to the elderly (56 and above) which stood at 21.6%.
Level of education of respondents	• The insurance company employees involved in underwriting have undergone through formal education with the majority having undergraduate degree at 44.3%.
Respondents work experience in underwriting	• 55.7% of the respondents had worked their current work station for between 3 to 5 years, while those

	who have worked for less than 3 years were at 28.9%. It was noted that those who had worked for between 5 to 7 years and over 7 years were at 12.4% and 3% respectively
Insurance companies type of underwriting	• Majority of the insurance companies at 34% were underwriting composite while those underwriting life and non – life were at 33%.
Objectives	**Findings**
To establish how the type of contract contributes to the insolvency of insurance companies in Kenya.	Majority of the respondents agreed at 90.7% that type of contract contribute to insolvency of companies in Kenya while 5.2% indicated it contributed averagely and 4.1% indicated that to a low extent it contributes to insolvency.
Establish how under reserving contributes to insolvency of insurance companies in Kenya.	A greater percentage of respondents (91.8%) considered under reserving is a contributing factor to insurance insolvency in Kenya while 8.2% opined it was average while none of the respondents (0.0%) dissented.
To establish how management contributes to insolvency of insurance companies in Kenya	A higher majority at 75.5% agreed that management contributed to insurance insolvency in Kenya. The overall impression was that management was a major contributor as there is none of the respondents who disagreed and those who indicating it contributed averagely were 24.7%.
To establish how regulations contribute to insolvency of insurance companies in Kenya.	48.5% of the respondents maintained that the regulations was a factor contributing to the insolvency of insurance companies in Kenya and 46.3% disagreed that this was a factor while 5.2% of the respondents gave a neutral opinion.

5.3 Discussions of the findings

This section gives a detailed discussion of the findings from this study.

5.3.1 Type of contract

The type of contract is usually critical in determining the insolvency of insurance companies according to Darrel (2007). The findings of this study showed that 90.7% of the respondents agreed that type of contract is a factor that contributes to insurance insolvency while 5.2% indicated that it contributed averagely while 4.1% indicated it contributed to a lower extent.

These findings concur with those of Darrel (2007) in a study conducted in Canada to determine the causes of insolvency which overwhelming majority of the respondents cited type of contract as a major reason for insolvency of insurance companies.

5.3.2 Under Reserving

According to Young (1996) pressure from senior management may compel an insurer to declare good results and since there is great deal of pressure to keep the reserve minimum it can be extremely difficult to set the reserves leading to under-reserving. The study revealed that 91.8% of the respondents agreed that under-reserving is a major contributor to insolvency of insurance companies in Kenya while only 8.2% opined it was average while none disagreed. Carson and Hoyt (1995) agreed that to a greater or lesser extent, under-reserving is a contributor to insolvency of insurance companies.

5.3.3 Management

Management envisages corruption which leads to mishandling of insurance procedures within and insurance companies (Lee, 2008). A higher majority at 75.5% agreed that management contributed to insurance insolvency in Kenya. The overall impression was that management was a major contributor as there is none of the respondents who disagreed and those who indicating it contributed averagely were 24.7%. Brigham and Philip (2004) confirms this finding by stating that management is driven by the insurance personnel personal financial interest and does have the long-term health of the company and the policyholders and this risks to insolvency is exaggerated when the insurance company has limited free capital to start with.

5.3.4 Regulations

O'Connor suggests that the way a country is regulated will set its regulatory environment status and indicates that these regulations may lead to insolvency of insurance companies. In the findings 48.5% of the respondents maintained that the regulations was a factor contributing to the insolvency of insurance companies in Kenya and 46.3% disagreed that this was a factor while 5.2% of the respondents gave a neutral opinion. According to Redman (1992) since the respondents agreeing and those disagreeing are in close conduit, it means the country has a strong regulatory regime that is accepted and rejected in equal measure.

5.4 Conclusions of the study

The following conclusions were made from the findings of this study.

From the demographic characteristics of the study, it is evident that the insurance companies to a large extent have both the female and male distributions skewed towards male. At the same time their level of education is largely from undergraduate level.

Type of contract, under-reserving, management and regulations contribute immensely to insurance insolvency. The five-point linkert scale on type of contract indicated that majority of the respondents agreed that type of contract contributes to insolvency of insurance companies.

5.5 Recommendations of the study

Based on the conclusions of this study, the following recommendations were made.

1. The insurance companies should invoke section 125 Laws of Kenya that requires a progressive realization of the enforcement of the one-third-gender rule to ensure that women are represented at insurance companies as not only a requirement of the law but also balance decision making.
2. The insurance regulators should me more stringent in enforcing the already available regulations to curb the risk of insolvency.

5.6 Suggested area for further research

The study proposes the following areas for further study:

1. An assessment of determinants of insolvency of insurance companies in other neighboring countries.
2. Assessment of the determinants of insolvency of insurance companies in Kenya that targets the composite companies.
3. Assessment of the determinants of insolvency of insurance companies in Kenya target Life and Non-Life separately.

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APPENDICES

APPENDIX 1: LETTER OF TRANSMITTAL

ALL RESPONDENTS

17th July 2014

WAWERU MILLICENT NJERI

P.O BOX 1084-10400

NANYUKI

Dear Sir/Madam,

RE: DETERMINANTS OF INSOLVENCY IN SELECTED INSURANCE COMPANIES IN KENYA

I am a student at The University of Nairobi, Thika Campus. I am undertaking a research on the above subject. This questionnaire is designed to gather information about your organization for use in the study.

The information given will be strictly used for academic purposes only and will be treated with utmost confidentiality.

Kindly respond to all the questions.

Yours faithfully,

Waweru Millicent Njeri

APPENDIX II: QUESTIONNAIRE

This questionnaire is to collect data for purely academic purposes. All information will be treated with strict confidence. Do not put any name or identification on this questionnaire. *Answer all* ***questions as indicated by either filling in the blank or ticking the option that applies.***

SECTION A: PERSONAL INFORMATION

1. What is your Gender?
   Male [ ]   Female [ ]
2. Age group of respondents

   15-20[ ]   21-30[ ] 31-40 [ ]   41-50 [ ]
3. What is your academic background
   Certificate [ ]   diploma [ ]   undergraduate [ ]   none [ ]
4. How long have you been working in this organisation?
   Less than 3 years ( ) 3 to 5 years ( ) 5 to 7 years ( )   Over 7 years ( )
5. How long has your company been in operation? ………………..
6. What kind of business do you underwrite? (Please tick one)

a) Non- life [ ]
b) Life [ ]
c) Composite [ ]

6b. If non- life or composite do you underwrite PSVs? Yes [ ] No [ ]

SECTION B: factors that contribute to insolvency of insurance Companies in Kenya.

Type of contract

7. To what extent does the type of contract contribute to insolvency of insurance Companies in Kenya?
   a) Very high extent
   b) High extent

c) Moderate extent
d) Low extent
e) Very low extent

8. To what extent do you agree with the following statements on Type of contact? Rank by placing a tick in the appropriate place.

1= strongly disagree, 2=disagree, 3= moderately agree 4= agree 5= strongly agree

Factors Under Consideration	**1**	**2**	**3**	**4**	**5**
An incomplete contract has gaps, missing provisions, and ambiguities which contribute to insolvency					
Since insurance industry deals with incomplete contracts, utmost good faith and care are required when determining the kind of contract to enter into					
Some contracts are prone to risk than others					
One should investigate whether the type of contract entered by the firms have any bearing to insolvency.					
Underestimation of these options for a long while could leave insurance companies in a terrible operational condition.					

Under reserving

9. To what extent does the under reserving contribute to insolvency of insurance Companies in Kenya.

a) Very high extent
b) High extent
c) Moderate extent
d) Low extent
e) Very low extent

10. To what extent do you agree with the following statements on under reserving? Rank by placing a tick in the appropriate place.

1= strongly disagree, 2=disagree, 3= moderately agree 4= agree 5= strongly agree

Factors Under Consideration	**1**	**2**	**3**	**4**	**5**
Sometimes it is extremely difficult to set the reserves					
Insolvency can occur due to inadequate reserves					
Under reserving as a key component cause of company failure.					
One of the factors leading to under reserving is the absence of adequate internal controls					
lack of fit between the subsystems can cause a company to fail					

Management

11. To what extent does management contribute to insolvency of insurance Companies in Kenya?

a) Very high extent
b) High extent
c) Moderate extent
d) Low extent
e) Very low extent

12. To what extent do you agree with the following statements on **management**? Rank by placing a tick in the appropriate place.

1= strongly disagree, 2=disagree, 3= moderately agree 4= agree 5= strongly agree

Factors Under Consideration	1	2	3	4	5
Dishonest and corrupt individuals to extract money from the premiums and direct it to their own personal wealth can contribute to insolvency					
Overexposure to liabilities that were difficult to measure in advance have certainly played a part in the downfall of some entities.					
distress due to concentrated exposure is more often due to companies expanding into areas outside of their core competences					
Failure to keep effective track of growing risk concentrations and using third parties to broker business are subject to delegated authority which can lead to insolvency					

Regulation

13. To what extent does regulation contribute to insolvency of insurance Companies in Kenya?

a) Very high extent
b) High extent
c) Moderate extent
d) Low extent
e) Very low extent

14. To what extent do you agree with the following statements on regulations? Rank by placing a tick in the appropriate place.

1= strongly disagree, 2=disagree, 3= moderately agree 4= agree 5= strongly agree

Factors Under Consideration	**1**	**2**	**3**	**4**	**5**
companies have some flexibility to choose their regulatory environment					
The regulatory environment is just one consideration to be taken into account when deciding where to base a new company					
unilateral changes to the way one particular country is regulated will simply result in business being diverted to a different regulatory environment					
some countries have a solvency regime that is stronger than others					

APPENDIX III: LIST OF REGISTERED INSURANCE COMPANIES – 2013

1. AAR Insurance Kenya Limited
2. A P A Insurance Limited
3. Africa Merchant Assurance Company Limited
4. Apollo Life Assurance Limited
5. AIG Kenya Insurance Company Limited
6. British-American Insurance Company (Kenya) Limited
7. Cannon Assurance Limited
8. Capex Life Assurance Company Limited
9. CFC Life Assurance Limited
10. CIC General Insurance Limited
11. CIC Life Assurance Limited
12. Continental Reinsurance Limited
13. Corporate Insurance Company Limited
14. Direct line Assurance Company Limited
15. East Africa Reinsurance Company Limited
16. Fidelity Shield Insurance Company Limited
17. First Assurance Company Limited
18. G A Insurance Limited
19. G A Life Assurance Limited
20. Gateway Insurance Company Limited
21. Geminia Insurance Company Limited
22. ICEA LION General Insurance Company Limited
23. ICEA LION Life Assurance Company Limited
24. Intra Africa Assurance Company Limited
25. Invesco Assurance Company Limited
26. Kenindia Assurance Company Limited
27. Kenya Orient Insurance Limited
28. Kenya Reinsurance Corporation Limited
29. Madison Insurance Company Kenya Limited
30. Mayfair Insurance Company Limited

31. Mercantile Insurance Company Limited
32. Metropolitan Life Insurance Kenya Limited
33. Occidental Insurance Company Limited
34. Old Mutual Life Assurance Company Limited
35. Pacis Insurance Company Limited
36. Pan Africa Life Assurance Limited
37. Phoenix of East Africa Assurance Company Limited
38. Pioneer Assurance Company Limited
39. Real Insurance Company Limited
40. Resolution Insurance Company Limited
41. Shield Assurance Company Limited
42. Takaful Insurance of Africa Limited
43. Tausi Assurance Company Limited
44. The Heritage Insurance Company Limited
45. The Jubilee Insurance Company of Kenya Limited
46. The Kenyan Alliance Insurance Company Limited
47. The Monarch Insurance Company Limited
48. Trident Insurance Company Limited
49. UAP Insurance Company Limited
50. UAP Life Assurance Limited
51. Xplico Insurance Company Limited

APPENDIX IV: INSURANCE PERFORMANCE IN SOME AFRICAN COUNTRIES

Country	Life Premium (USD millions)	Life Penetration %	Non-Life Premium (USD Millions)	Non- Life penetration %	Total Premium (USD Millions)	Total Penetration %
Kenya	436	1.08	855	2.08	1290	3.16
Algeria	93	0.05	1161	0.62	1250	0.68
Egypt	785	0.31	1033	0.41	1818	0.72
Morocco	930	0.96	1354	1.99	2857	2.95
Nigeria	474	0.18	1354	0.51	1828	0.68
Tunisia	123	0.27	694	1.53	816	1.80
Mauritius	442	4.00	213	1.93	655	5.94
Angola	57	0.05	1083	0.94	1140	0.99
Namibia	674	5.5	306	2.5	980	8.00
South Africa	44787	11.56	10084	2.6	54871	14.16

Source: Swiss Re – Sigma 3/2013

APPENDIX V : KREJCIE & MORGAN TABLE

Table for Determining Sample Size for a Given Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size
"S" is sample size.

Source: Krejcie & Morgan, 1970

APPENDIX V: RESEARCH PERMISSION LETTER

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No.

Date:

29th September, 2014

NACOSTI/P/14/3271/3036

Millicent Njeri Waweru
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"An assessment of determinants of insolvency of insurance companies in Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Kiambu and Nairobi Counties** for a period **30th November, 2014.**

You are advised to report to **the Chief Executive Officers of selected Insurance Companies, the County Commissioners and the County Directors of Education, Kiambu and Nairobi Counties** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

DR. M. K. RUGUTT, PhD, HSC.
Ag. SECRETARY/CEO

Copy to:

The Chief executive Officers
Selected Insurance Companies.

National Commission for Science, Technology and Innovation is ISO 9001: 2008 Certified

APPENDIX V1: RESEARCH PERMIT

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 3387

CONDITIONS: see back page

THIS IS TO CERTIFY THAT:
MS. MILLICENT NJERI WAWERU
of UNIVERSITY OF NAIROBI, 0-10400
NANYUKI,has been permitted to conduct
research in *Kiambu , Nairobi Counties*

on the topic: *AN ASSESSMENT OF DETERMINANTS OF INSOLVENCY OF INSURANCE COMPANIES IN KENYA*

for the period ending:
30th November,2014

Permit No : NACOSTI/P/14/3271/3036
Date Of Issue : 29th September,2014
Fee Recieved :Ksh 1,000

Applicant's Signature

Secretary
National Commission for Science, Technology & Innovation