



**Midlands State  
University**



**FACULTY OF COMMERCE**

**DEPARTMENT OF INSURANCE AND RISK MANAGEMENT**

**EXPLORING A RISK BASED APPROACH TO SOLVENCY MANAGEMENT IN THE  
ZIMBABWEAN SHORT TERM INSURANCE INDUSTRY**

**BY**

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# Midlands State University



## FACULTY OF COMMERCE

### DEPARTMENT OF INSURANCE AND RISK MANAGEMENT

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#### APPROVAL FORM

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This serves to confirm that the undersigned has read and recommended to the Midlands State University for acceptance of a dissertation entitled,

**“Exploring a risk based approach to solvency management in the Zimbabwean short term insurance industry”**

Submitted by Placedes Mukonzo in partial fulfillment of the requirements of the Bachelor of Commerce (Hons) Degree in Insurance and Risk Management.

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## **DEDICATIONS**

“I dedicate this project to my mother Mrs. W. Mukonzo and my brothers Simbarashe Mukonzo and Batanayi Mukonzo for their love, inspiration and support.

## **ABSTRACT**

The study sought to explore the adoption of a risk based approach to solvency management in the Zimbabwean short term insurance industry. The review of literature was carried out in order to establish what other authors had to say on the subject. To come up with a sample of 17 short term insurers and reinsurers out of a target population of 33 operational insurance and reinsurance companies, the researcher used stratified sampling technique since the study population comprised of different characteristics. The researcher used questionnaires and structured interviews to collect information. Tables, bar graphs and pie charts were used to present responses from the survey. The results indicated that the insurers and reinsurers are facing challenges in meeting the minimum capital requirement and appreciates the benefits of adopting solvency II. However, the challenges and costs associated with the adoption of solvency II makes its adoption in the Zimbabwean short term industry difficult. The study recommends the modification of the current solvency management system so as to encourage insurers and reinsurers to hold risk based capital and the protect policyholders through reporting rules and the establishment of a policyholder protection fund. It also recommends short term insurers and reinsurers to use effective capital management and risk management systems.

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

<b>IPEC</b>	Insurance and Pension Commission
<b>SCR</b>	Solvency Capital Requirement
<b>MCR</b>	Minimum Capital Requirement
<b>EBS</b>	Economic Balance Sheet
<b>AOF</b>	Ancillary Own Funds
<b>BOF</b>	Basic Own Funds
<b>PPIP</b>	Prudent Person Investment
<b>SRP</b>	Supervisory Review Process
<b>ORSA</b>	Own Risk and Solvency Assessment

# CHAPTER 1

## INTRODUCTION

### 1.0 Introduction

This chapter introduces the research being undertaken. The background of the study, statement of the problem, research objectives and research question are also looked at. The importance of study, assumptions, and limitations, definition of terms and delimitation of the research are outlined in this chapter. Generally, it is the laying ground of the project and a map which will direct the researcher in carrying out the project.

### 1.1 Background of the study

Insurance and Pension Commission (IPEC) regulates the insurance industry in Zimbabwe and is guided by the Insurance Act Chapter 24:07 which commenced on 1 August 1988. It mainly aims to protect the rights, benefits and other interests of policy owners and of beneficiary of policies. Zimbabwe is currently using the capital based approach to solvency management. IPEC sets minimum capital requirements from time to time. The minimum capital requirement as at 31 December 2015 is \$1, 5 million for short term insurers and reinsurers and \$2 million for life insurers. The minimum capital requirement has been raised from \$300 000.00 for short term, \$400 000.00 for reinsurers in 2013. Insurance and reinsurance companies were supposed to be 50% compliant with the USD 1.5 million dollars minimum capital threshold by 30 June 2013, 50% by December 31 2013 and attain full compliance by 30 June 2014 (IPEC Report, 2013). However as at 30 June 2014 only 11 out of 25 short term insurers had adhered to the set minimum capital requirement.

The insurance commissioner deregistered 61 insurance players in 2010 because of failure to meet set minimum capital requirements. According to the IPEC non-life insurance report for the fourth quarter 31 December 2014, five insurers reported capital positions below the set minimum capital requirement of USD 1.5 million dollars. This resulted to the deregistering of Altfin and the suspension of Global Insurance Company, KMFS Insurance Company and New Reinsurance Company. Excellence Insurance Company, Quality Insurance Company, Tristar Insurance

Company and Cell Insurance Company were also warned by IPEC in 2015 to meet the minimum capital requirement of USD 1.5 million dollars so as to avoid being shut down. Although insurance players are struggling to meet the set minimum capital requirement of USD 1.5 million dollars, IPEC also highlighted on a soon to be announced 233% increase in capital requirement to \$5 million dollars (Daily News ,18 August 2015).

According to The Zimbabwean Independent on 14 September 2012, the commissioner argues that the increase in capital requirement would strengthen the sector whereas in the Financial Gazette 20 August 2012 it is reported that the European Zone is encouraging insurers to go with the risk based approach way to solvency management opposed to having a uniform minimum capital level for all insurers irrespective of the different risk each institution faces. Nhavira et.al (2013) states that the silo based approach to solvency management as currently existing in Zimbabwe encourages a blinkered approach to regulation and supervision. On the other hand, the risk based approach to solvency management offers clarity and transparency of regulation, better understanding of risk, alignment of corporate governance, proactive approach to preventing or solving problems and focuses on consumer protection (Gray et al 2014). Does this mean that the risk based regime could be a solution for the Zimbabwe Insurance industry?

## **1.2 Statement of the problem**

The research seeks to explore whether a risk based approach to solvency management is applicable to the Zimbabwean environment. Across emerging markets and developing countries, many regulatory agencies are looking to reform the regulatory and supervisory framework and move towards risk based in the insurance industry (Alms and Company AG 2015). The 2008 economic crisis that gave insurance regulators an increased interest in the concept of risk based.

## **1.3 Research objectives**

- (a) To point out the purpose of solvency monitoring by insurance regulators.
- (b) To reveal the inadequacy of the capital based approach to solvency management.
- (c) To indicate the methods of solvency management used internationally.
- (d) To reveal the impact of risk based management approach to solvency management.

(e) To investigate the adoption of the risk based approach to solvency management in the Zimbabwe insurance industry.

#### **1.4 Research questions**

(a) Is solvency monitoring by insurance regulators effective?

(b) How effective is the capital based approach to solvency management in the Zimbabwean short term insurance industry?

(c) What is prompting the global considerations and adoption of solvency II (risk based approach) to solvency management?

(d) What is the relevancy of the risk based approach to solvency management in the Zimbabwean short term industry?

(e) Is it possible to adopt a risk based approach in the Zimbabwean short term insurance industry?

#### **1.5 Importance of study**

The study is important to the following:

**(a) To the Zimbabwean short term industry**

The research will be helpful to insurers, reinsurers and the regulating body in managing solvency risks which are currently threatening the operations of the industry.

**(b) To the student**

The research will enhance and enrich the researcher's research skills and equip her with an in depth understanding of the topic under study.

**(c) To the university**

The study will be stored in the university library and add reference material to the library.

#### **1.6 Assumptions**

The research was carried under the following assumptions:

(a) Honest, reliable and relevant information shall be provided by respondents to the research.

(b) The selected sample was a true representation of the population.

### **1.7 Limitations**

- (a) The research had limited financial resources for travelling expenses from Gweru to the oasis of information which was Harare.
- (b) There was limited time since the research ran simultaneously with her final semester.
- (c) Respondents could not provide all the required information due to company privacy policies.

### **1.8 Delimitation of the study**

The research concentrated on short term insurers and short term reinsurers. The research was conducted on companies based in Harare since this is where the relevant information needed for the study could be obtained. The research covered statistics and Financial results for the period of 2009 up to 2015.

### **1.9 Definition of terms**

- (a) Solvency is a state in which a company is able to service its debt and meets its other obligations.
- (b) Insolvency is when assets become insufficient for an insurance company to meet its financial obligations.
- (c) Capital based approach to solvency management is an approach where risk measurement is a generic, one size fits all, externally prescribed collection that does not consider the differing forms of risk exposure that may be found in each particular business to which it is applied.
- (d) Risk based approach to solvency management encompasses the identification of risks that a company faces as well as assessing the financial strength in relation to the identified risks.

### **1.10 Summary**

This chapter introduced the study and outlined the factors that prompted this research. The background of the study, the importance of the study, assumptions and limitations were also outlined in this chapter.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.0 Introduction

According to the Leedy (1997) literature review is an account of what has been published on a certain topic or concept by accredited authors and writers. In presenting literature review, the purpose is to convey to the reader the knowledge and ideas that have been established on a topic and what requires further research.

The chapter tries to critically analyze what has been studied so far in the subject of the risk based approach to solvency management. This analysis will pay attention to some overlooked but critical aspects of the subject area.

#### 2.1 Defining solvency and insolvency

Solvency is the financial soundness of an entity that allows it to discharge its monetary obligations as they fall due (Zietlow and Seidner 2007). Dragos (2013) defines solvency as the ability of an insurance company to pay all its legal debts.

The consumers considers insurance to be a key risk management strategy, therefore the minimization of the disruption of insurance companies is of paramount importance (Leadbetter and Dibra 2008). This makes the subject of solvency of great essentiality in the field of insurance since the whole functionality of insurance is based on insurance players meeting their obligations. When assets become insufficient for an insurance company to meet its contractual and other financial obligations it is called insolvency (Leadbetter and Dibra 2008).

Solvency is described by other scholars in liquidity terms as the ability to meet current payment obligations as they fall due. Cummins and Derrig (2008) however argues that when solvency is measured in liquidity terms, companies may appear liquid (able to meet its current obligations by using its current cash flows) while being ruined in the long term sense (liabilities exceeding assets).

There is the accounting, legal, economist and financial expert's ways to measure solvency. However, the accounting way in terms of solvency ratios is widely applied in measuring solvency.

### **2.1.1 Measuring solvency using solvency ratios**

Solvency ratios help to assess the company's funds in relation to their obligations. A high solvency ratio is an indication that a company is most likely to meet its obligations. Good solvency varies based on different industries but a ratio of 20% is deemed healthy. Solvency ratios are usually confused with liquidity ratios. Randall et al (2003) states that liquidity ratios measure the ability to meet short term liabilities whereas solvency ratios look at the ability of companies to meet their long term debts. The solvency ratio according to Hood and Sangster (1926) is calculated as

$$\text{Solvency Ratio} = \frac{\text{Net Income} + \text{Depreciation}}{\text{Short term liabilities} + \text{Long term liabilities}}$$

Randall et al (2003) however, states that there are different types of solvency ratios and these are:

#### **(a) Equity to total assets ratio**

It compares the total equity of the company to the total assets and is calculated as

$$\frac{\text{Equity}}{\text{Total assets}}$$

#### **(b) Debt to equity**

It compares total debt to shareholders equity and we calculated as

$$\frac{\text{Total liabilities}}{\text{Equity}}$$

#### **(c) Total debt to Total assets**

This compares total liabilities to a company's holdings. It is calculated as

$$\frac{\text{Total liabilities}}{\text{Total assets}}$$

### **2.1.2 Main reasons for insurance companies' insolvency**

According to Leadbetter and Dibra (2008) by understanding the causes of insolvency, a reduction in the winding up of companies and improvements in solvency supervision can be achieved.

Several scholars have looked into the causes of insolvency in insurance companies. Cummins and Phillips (2005) research concluded that the leading cause of involuntary exit is inadequate pricing and deficient loss reserves in which in their research accounted for 31% of the impairments. The American Academy of Actuaries Property (2010) agrees that deficient loss reserves and inadequate pricing are causes of insolvency but cited rapid growth, fraud and mismanagement as the major causes of insolvency.

Most of the scholar's findings converge on the financial aspects which results in the failure of insurance companies but in the studies of Hall (1992) size of companies was considered as a key factor in insolvency of firms. This was supported by Cummins and Phillips (2005) as they mentioned that larger insurers are less sensitive to financial distress than small insurers .Costello (2003) identifies catastrophes, reinsurance (either not enough not ceded or failure of reinsurance) , false reporting and investment failure as causes of insurance companies failures.

### **2.2 What is solvency management?**

Insolvencies have become a major disruption to the insurance sector (Stewart et al 1988). These disruptions have been some of the major drivers of solvency management through solvency frameworks and or solvency rules. According to Eling et al (2007) solvency rules stipulate the minimum amount of financial resources that insurer and reinsurer must have in order to cover the risks to which they are exposed, and they lay down principles that should guide insurer's overall risk management so that they can better anticipate any adverse events and better handle such situations. Solvency regime ensures the financial soundness of insurance undertakings and particularly ensures that they can survive difficult periods.

### **2.2.1 Solvency management and the regulators.**

Stewart et al (1988) states that, the major purpose of insurance regulation is to prevent insolvency. It further recognizes insolvency as a regulatory failure. According to Monayery (2013), the objective of insurance regulation is:

#### **(a) To control the conduct of players.**

The control of insurance players in the market entails the monitoring of insurance players as to how they conduct their business. This monitoring is done through acts, rules or policies that the insurance players are supposed to adhere to.

#### **(b) To ensure that companies are financially sound.**

The financial soundness of insurance players is one of the main control functions of regulators. They undertake solvency assessments so as to ensure that insurers are able to meet their obligations (Gray, Hougaard and Tham, 2014). If an insurance player is not sufficiently financed, the regulators have the right to suspend or deregister the insurance player.

#### **(c) To protect consumers**

The protection of consumers is the ultimate responsibility of the regulators (Phillips and Grace, 1999). The regulators ensure good conduct of insurance players and their ability to meet their obligations so that insurance players are able to meet their end of the bargain to consumers.

#### **(d) To establish a strong economic and financial system.**

An improvement or a strong insurance industry strengthens the financial sector and eventually the economy as a whole. The regulators by monitoring and ensuring the financial soundness of the industry, improves the financial system as well as the economy.

### **2.3 Risk based approach to solvency management**

A risk based approach to solvency management encompasses the identification of risks that an insurance company faces as well as assessing their financial strength in relation to the identified risks. Deloitte (2012) argues that the risk based approach seeks to equate the risks and liabilities of an insurance company with the ability to finance these risks in terms of assets. Cummins and

Nini (2002) define a risk based approach as a regime that is oriented towards the insurer risk structure. It ensures a better understanding of risks thereby necessitating a proactive approach to solving or preventing problems. However, the risk based approach is also defined in term of the European Union solvency II as it covers all the aspects and principles of the risk based approach.

### **2.3.1 Drivers of the solvency II regime**

Europe is a leader in the financial market hence the rest of the world normally follows trends set in Europe. The European Union's insurer solvency regime was put in place in the 1970s and Solvency I is the name given to changes the European Union's solvency regime made in 2002 (Financial Conduct Authority (2015)). Solvency I which became effective in 2002 was focused on improving the system. During the preparation of the project it was observed that the mandatory solvency margin was not the only important parameter to determine the global financial situation of an insurance company, since the verification of another financial aspects was also needed (Everis 2009). For this reason according to Christiansen and Niemeyer(2012) solvency II was initiated as a longer term project which not only aims at defining a new frame of solvency for European Union insurance companies, but it also seeks to improve companies internal control, management and openness to clients.

Solvency I is defined by Swain and Swallow (2015) as a rules based regulatory frame work in which there is a uniform capital requirement for insurance players. According to the Financial Conduct Authority (2015) it consists of a set of rules and amendments made up of the core which is the non life directive of 1973 and life directive of 1979. In 2002 amendments as to improve the calculation of solvency margin were made. Solvency margin required for non life insurers under solvency I is based on a percentage of gross written premium, a percentage of average claims over a time period, or the carried forward amount of preceding year (European Commission Directive 2009/138/EC). In respect of the life business, the solvency margin is based on a percentage of mathematical provisions and adds a percentage of the remaining positive capital at risk.

#### **(a) Inadequate and inconsistent policyholder protection**

In 2009, the solvency II directive was approved over the solvency I directive and Swain and Swallow (2015) argues that it was as a result of the inadequacy and weaknesses of the solvency I that drove the proposition and approval of the solvency II directive. Capgemini (2006) recognizes the weakness of the solvency II in the calculation of the non life solvency margins in which they are focused on the volume of the contracts instead of the actual risks inherent to specific contracts. This poses questions of protection to the policyholders hence another shortfall of solvency I, it provides inadequate and inconsistent policyholder protection.

#### **(b) Lacks risk sensitivity**

The solvency I regime is a one size fits all regime and this has been noted as one of the weaknesses of the directive. According to The Institute and Faculty of Actuaries (2015) the regime lacks risk sensitivity in that simple and general factors are used to calculate capital requirements which implies that it does not adequately includes risks that are specific to the insurer. Solvency I functions on a partial balance sheet approach that is it ignores the risks that may crystallize on the assets and liabilities off the balance sheet. This has been described by Capgemini (2006) as the inadequate determination of technical provision.

#### **(c) Growth of the insurance sector in Europe**

The weakness of the solvency I regime are not entirely responsible for driving the solvency II initiative. The economic development of the insurance sector also played an important role. According to Capgemini (2006) there is massive growth that has been noted in the insurance sector in Europe, becoming the second largest hence disturbance of the insurance sector can possibly affect the whole European financial system. This has been a strong solvency II driver as the sector demanded more protection.

#### **(d) Emergence of new and complex risks**

Generally, the business world has been evolving and this has resulted to the emergence of new and complex risks. Companies and markets are also becoming increasingly sophisticated in their operations therefore creating new types of risks such as operational risks. Capgemini (2006) argues that it is easier for insurers to manage risks that are core to their business for instance the

technical risks than general risks making it essential for regulatory intervention so as to tackle other risks. The complexity in risks has been countered by technical developments which have provided advanced risk management strategies which the insurers are trying to implement.

#### **(e) Financial conglomerates**

Capital requirements across financial sector are not uniform and this has resulted to the transfer of risks to sectors where capital requirements are low. According to PwC (2009) the issue of financial conglomerates between the banking and the insurance sector has presented a high risks on the insurance sector as the banking sector transfers risks to the insurance sector where compared to the banking sector has lower capital requirements. This among other issues has made risk scrutiny essential as well as group's supervision.

### **2.4 The European Solvency II directive**

Solvency II was developed as a result of previous market turmoil which highlighted system weakness and renewed awareness over the need to modernize insurance industry standards and improve risk management techniques (Clarke 2014). Solvency II has a similar structure to the Basel II regulation for the banking industry. It has three pillars that includes quantitative and qualitative requirements including specific components that focused on capital, risk, supervision and disclosure (KPMG 2011).The solvency II directive is a new regulatory framework for the European insurance industry that adopts a more dynamic risk based approach and according to EU Commission, it implements a non zero failure regime that is a 0.5% probability of failure.

#### **2.4.1 The three pillars of solvency II**

The three pillars are intended to promote capital adequacy, to achieve greater transparency and to enhance supervisory review so as to protect policyholders and ensure sound risk management (KPMG 2011).This is achieved through improved processes and controls, implementation of approaches to better measure and manage risk as well as instituting structures that encompasses enterprise wide governance.

### **2.4.2 Pillar I**

According to Eling et al (2007) pillar 1 outlines the financial requirements such as market consistent valuation of the balance sheet including insurance liabilities and assets. Piotrowska (2008) argues that pillar I primarily concerns itself with capital requirements in form of the minimum capital requirement and solvency capital requirement. Pillar I generally focuses on the quantitative requirements and it ensures adequate capitalization of firms with risk based capital.

### **2.4.3 Components of pillar I**

#### **(a) Valuation of assets and liabilities**

The measurement of solvency is through the assets and liabilities of a company since it is measured by the excess of assets over liabilities. Clarke et al (2014) mentioned that the risk based approach focuses on critical risks affecting assets and liabilities. This is termed the total balance sheet approach. According to PwC (2009),it provides for market consistent valuation of the balance sheet meaning that assets and liabilities should be at market value that is as if they could be transferred or settled respectively. Where market prices are not available reasonable proxies should be used. Qualifying assets are also stated.

The trading of assets is done in liquid markets where prices which are taken to be market values which is not the case for liabilities. According Piotrowska (2008) the market value of insurance liabilities is the forecast of future liability cash flows discounted using a risk free interest rate.

#### **(b) Technical provisions**

Technical provisions are insurance obligations due to policyholders and beneficiaries. Brosemer et al (2002) states that, the technical provisions will be valued basing on current exit value. This is the amount that an insurance company would pay in order to transfer its obligations immediately to another company. Technical provisions according to the Institute and Faculty of Actuaries (2013) will be calculated as best estimate liabilities then add a risk margin. However, this does not apply to hedge able risks. With respect to hedge able risks, the technical provisions are calculated directly and valuations of the financial instruments are used to derive value. On non hedge able risks, a risk margin using the cost of capital method is calculated.

### **(c) Solvency capital requirement (SCR)**

KPMG (2011) defines SCR as an approach to solvency calculation which is sophisticated, dynamic and more risk sensitive. It is designed to focus on key risks affecting all balance sheet components and will be fully centered on any risk mitigation that can be demonstrated. The SCR is according to Eling et al (2012) there to absorb unforeseen losses therefore assuring desired policyholders protection. The SCR is designed to be a target level of capital which will cover all risks an insurer faces, the confidence level is proposed to be 99, 5% over one year period (White et al 2011). SCR covers market risks, operational risks, credit risks and insurance risks.

When calculating SCR, companies have the option to use the standard formula which is set by the directive or the internal model which is preapproved by the regulator. Solvency II however encourages the use of an internal model as costly as it is because it deals with risks that are specific to a company (White et al 2011). This is because although it is simple and less costly, the standard formula is a one size fits all approach to the measurement of risk exposure.

### **(d) Minimum Capital Requirement (MCR)**

This is the level below which presents unacceptable level of risk to policyholders and beneficiaries. It is meant to be the lower solvency calculation which corresponds to SCR (McHugh 2014). White et al (2011) states that the MCR is calibrated to a one year Var. with a confidence level of 85%. The breach of MCR results to ultimate supervision intervention.

### **(e) Own funds**

According to KPMG (2011) this is capital under solvency II and comprises of the excess of assets over liabilities at market values or economic balance sheet (EBS). The addition of qualifying subordinated debt to excess of assets over liabilities at market value amount to Basic own Funds (BOF) (White et al 2011). The subordinated debt however if it has a fixed maturity it should be at least 5 years and if not fixed its subject to 5 years unless it is no longer considered a component of the solvency margin (European Commission Directive 2009/138/EC). The insurer or reinsurer should also if the subordinated debt has a fixed maturity provide a plan showing how the available solvency margin will be kept at or brought to the required level at maturity of loan.

Companies could apply for approval of including some off balance sheet finance to own funds and so called is Ancillary Own Funds (AOF). Ancillary Own funds include unpaid share capital and letters of credit and guarantees. This is to classify and restrict the extent at which various components of own funds can be used to meet capital requirement and both SCR and MCR have rules in regard to extent in which these could be used. Both BOF and AOF are classified into three tiers which according to McHugh (2014) are:

(a) Tier 1 capital comprises of common equity, retained earnings and surplus funds. It is the highest capital quality capable of absorbing losses on a day to day basis. The proportion of this tier should at least be higher than a third of the total amount of the eligible own funds (European Commission Directive 2009/138/EC).

(b) Tier 2 capital is subordinated debt and is of low quality and only absorbs losses on insolvency. This takes the form of mutual type associations.

(c) Tier 3 is said to be the lowest of capital and has only limited loss. The eligible amount of this tier should at least be less than a third of the eligible own funds (European Commission Directive 2009/138/EC).

The classification of own funds into tiers depends on whether they are basic own funds or ancillary own funds. Additionally, the level of subordination, servicing costs involved and the availability of the funds in terms of permanence and demand is considered.

#### **(f) Investment**

Insurance and reinsurance companies under the solvency II regime are not restricted on the classes of assets that they can invest provided that in all those assets they can prove that they are complying with the prudent person investment (PPIP). PPIP provides for full understanding of risks involved with the assets invested in and provide for them accordingly through the SCR and that the investments decisions that were made were in the best interest of policyholders. Pillar 1 also focuses on investment management rules of insurance companies and stipulates that insurance companies can make investments they deem appropriate but risks associated thereto should be catered for within the SCR of the company (European Commission Directive 2009/138/EC).

Investment of assets covering the MCR and SCR should however be invested in such a manner that ensures security, quality, liquidity, profitability and availability through localization (White et al 2011). Assets covering technical provisions on the other hand shall be invested in a manner appropriate to the nature and duration of the insurance and reinsurance liabilities and these are invested in the best interest of the policyholders. The assets should also be properly diversified to avoid excessive reliance on a particular asset (European Commission Directive 2009/138/EC).

#### **2.4.4 Pillar II**

It pertains to corporate governance within insurance firms, supervisory review process and the enforcement of high standards of risk management. The key issue on pillar II is to establish processes and functions that support a sound risk management system and the seen compasses internal audit functions, actuarial, risk management and finance with the board being ultimately responsible for all three pillars compliance (European Commission Directive 2009/138/EC). Clarke et al (2014) argues that under pillar II of the solvency II regime, supervisors are required to challenge the internal control systems and qualitative aspects of a company's risk management. These qualitative issues involves a leadership overall responsible for risk management, risk strategies that are clearly defined and links to the business strategy and a continuous and ongoing control and management of a company's risk also considering its capacity.

##### **(a) Supervisory Review Process**

Supervisory Review Process (SRP) ensures that the supervisory authority reviews and evaluates the undertakings of insurance and reinsurance players to ensure compliance and identify potential financial weakness which could pose risks to policyholders (Piotrowska 2008). Collado et al (2011) states that the supervisory authorities particularly reviews the strategies, processes and reporting procedures in terms of capital requirements, investment rules, technical provisions, systems of governance and the quality and quantity of own funds. The supervisory duty also includes the assessment of the methods and practices designed by insurance and reinsurance companies to identify adverse effects that could threaten the organization's financial stability from possible events and future changes.

If deficiencies or weaknesses are identified, the authorities have the power to require remedies. According to Capgemini (2006) an important feature of pillar II is the power the supervisor has to require additional capital resulting in a so called adjusting SCR, and to take measures to reduce risks. Capital add on could be required in situations where the system of governance has failed to identify, measure, monitor, manage and report risks or if the review concludes a significant deviation of the insurance or reinsurance company's risk profile from the SCR assumptions.

#### **(b) System of governance**

Insurance and reinsurance companies are required to put in place effective governance systems and this includes transparency in terms of allocation and segregation of responsibilities (KMPG 2011). The system is determined by the complexity and nature of an organization's operations and it also outlines the policies that deal with internal control, internal audit and risk management. Clarke et al (2014) states that a qualified, knowledgeable and experienced personnel who adequately enables sound and prudent management completes the requirements of the governance system.

#### **(c) Risk Management**

Risk management is also key as in this pillar it has a potential to take a thorough view of risk than on pillar I and this results in more extensive categories of risks being catered for. KPMG US (2011) argues that in pillar II a company does not only manage its retained risks but all risks relating to the management of the business environment and has to be communicated to the supervisory authority. Risk management comprises of necessary procedures to identify, measure, monitor, manage and report on risks continuously at both individual and aggregate level (White et al 2011). The effectiveness of these risk management systems requires the full integration of the whole organization.

#### **(d) Own Risk and Solvency Assessment (ORSA)**

Firms are also required to go through self assessment of risks in relation to their capital and adequacy of the capital resources. This is achieved through the ORSA process and is intended to

ensure the conduction of own assessment of solvency and financial position as well as own review of exposed risks by senior management (European Commission Directive 2009/138/EC).

**(e) Internal control and Internal audit**

Internal control according to KMPG (2011) encompasses the compliance function, accounting procedures and reporting arrangements. Ernest and Young (2008) mention that the compliance function is responsible for assessment of the legal environment, and offers advice on regulation provisions and compliance with laws. Internal audit evaluates the adequacy and effectiveness of the control system and elements of the system of governance. They ensure that intended operations are taking place and then make recommendations to management or supervisory body.

**2.4.5 Pillar III**

This completes the framework with a set of solvency II disclosure requirements. According to White et al (2011) it aims to achieve greater levels of transparency to their supervisors and the public so as to instill discipline in the actions that firms takes. Ernest and Young (2008) explain that the report will display the solvency and financial situation of insurance companies and must contain the following information.

**(a)**A detail of the business how it is performing .That is the company describes its activities, group structure, external environment, objectives, and strategy of financial results.

**(b)**Governance structures and an evaluation of how the governance structures are adequate for the insurance or reinsurance company's risk profile. A compliance code including competence and integrity rules is also drawn.

**(c)**Valuation method that is used to calculate technical provisions, assets held to cover technical provisions and capital requirements, as well as other assets and liabilities.

**(d)** Risk management strategies used to identify, measure, control and hedge risks. This includes the SCR and MCR as well as any breach if any and the explanations and then corrective measures taken.

The regulators also ensure that there is onsite verification of information. However, there are circumstances in which the regulators may approve nondisclosure of certain information (European Commission Directive 2009/138/EC). This is information which when disclosed may give the insurer's or reinsurer's competitors a significant undue advantage. There are also circumstances in which a company has a binding obligation to policyholders of nondisclosure, the regulator may approve it. If the regulators approve nondisclosure, the company shall make a statement in its report to the effect clearly stating the reasons.

#### **2.4.6 Objectives of solvency II regime**

White et al (2011) outlines the main objectives of the solvency II regime and these are:

**(a)** Insurance and reinsurance companies match their level of capital with their specific or chosen risk profile.

**(b)** Under solvency II there is much emphasis on the identification and mitigation of risks as well as aligning risks to capital which will eventually result to more efficient, accurate and transparent risk measurement and management. Coates et al (2011) mentioned that it aims to instill a greater understanding of measuring risks as well as the monitoring and management of the risks.

**(c)** The MCR and SCR provide an early warning system for deterioration in solvency by active capital management.

**(d)** It is also meant to create incentives to implement effective risk management strategies.

**(e)** According to Coates et al (2011) the emphasis on transparency help policyholders to compare insurers and products therefore the solvency II framework aims to improve policyholders' choice.

#### **2.4.7 Principles of the solvency II directive.**

The solvency II regime is based on principles in comparison to solvency I which is rules based.

These principles are stated by (European Commission Directive 2009/138/EC) as:

**(a) Principle 1**

Technical provisions should be objective, reliable and adequate.

**(b) Principle 2**

Liabilities should be adequate.

**(c) Principle 3**

Appropriate assets should be objectively valued and they should be reliable.

**(d) Principle 4**

Assets and liabilities should be matched in terms of currency and amount of cashflow.

**(e) Principle 5**

Capital Requirements should be adequate to absorb losses and risks.

**(f) Principle 6**

Capital adequacy has to be sensitive to risking the form of the requirements of assets, clearly defined appropriate capital, solvency margin etc.

**(g) Principle 7**

There should be control levels created and be enabled to intervene when necessary.

**(h) Principle 8**

Minimum capital requirement should be specified.

**(i) Principle 9**

Forms of capital should be clearly defined.

**(j) Principle 10**

There should be effective risk management systems.

**(k) Principle 11**

There should be allowance for different forms of risk transfer not only reinsurance for insurance companies.

**(l) Principle 12**

Market disclosure is of paramount importance.

**(m) Principle 13**

Solvency assessment should be undertaken by solvency authorities.

## **2.5 Why insurers and reinsurers should implement solvency II?**

### **(a)Competitive advantage in capital requirements**

Coates et al (2011) states that solvency II acknowledges that insurance companies have different risk profiles hence their capital requirements should differ. This will result into some companies benefiting from lower capital requirements than their competitors. Niche players will also benefit from their low risk profiles as well as calculation of the SCR using the standard model which is relatively cheaper Capgemini (2006).

### **(b) Product pricing and design**

Clarke et al (2014) state that solvency I does not take into account different underwriting risks that insurance and reinsurance firms face. In comparison to solvency I, solvency II recognizes the different types of risks that insurance and reinsurance companies faces. It further requires the backing up of adequate capital as well as understanding and creation of models to reflect the risks. This will help the organization to understand which products are suitable for their level of solvency as well as price the products relatively to the risks associated with them. For instance, products with high volatility of claims and heavily discounted long term products requires more capital (KPMG, 2011). Eling (2012) also argues that it will help insurers in product development as some of the products with high market risk exposure may have to be redesigned or replaced.

### **(c)Performance management**

Through the solvency II risk based principles, insurance companies can proactively and continuously identifying profitable lines of business and pursue them and they also have the choice to abandon the less profitable ones.

### **(d)Investment strategy**

Solvency I state the rules for investment of assets and that's how it deals with the investment risk (The Institute and Faculty of Actuaries, 2015).Under solvency II insurance and reinsurance companies are not prohibited to invest in any assets provided they can prove that the investment risk is carted for in the SCR. The capital charges for investment risks may encourage insurers to

take less investment risks and their investment decisions will be solely based on the best interest of the policyholders.

**(e) External rating**

Market disclosure in the form of reports is required by the pillar 3 of solvency II and these includes risks that a company faces as well as the risk management of the risks. In determining credit worthiness, this information is useful especially for investors and rating agencies. Capgemini (2006) explains that this will drive the market to a point where risk profiles will determine share prices and credit ratings therefore a sound risk management system will be in the best interest of insurance companies.

**(f) Reserving**

According to White et al (2011) technical provisions are the largest item on an insurer's balance sheet. The reserving risk is the risk of insufficient technical provisions and under solvency II these are backed up by a capital charge. The market consistent valuation of reserves also enhances transparency of reserves as well as a better understanding of risks associated with reserves. This may encourage insurers and reinsurers to adequately reserve for technical provisions.

**(g) Organizational impact**

Clarke et al (2014) states that pillar II of solvency II requires an enterprise wide risk framework which includes more formal approach to governance, demonstration of risk awareness, systematic approach to risk management as well as the coordination of risk management, finance and actuarial functions. This will have the impact of improving structures as well as the operations and risk mitigation abilities of these organizations.

**(h) Risk transfer mechanisms**

Solvency I only permitted the use of reinsurance as a risk mitigation instrument whereas solvency II advocates for the consistency of risk mitigation instruments such as hedging, securitization and reinsurance. However, for a risk mitigation instrument to be accepted, solvency II requires insurers to quantify their actual contribution to risk reduction Ernest and

Young (2008). Solvency II therefore gives insurers and reinsurers a wider spectrum of risk hedging and risk transfer instruments. New options will give insurers an incentive to optimize their risk transfer solutions and may consequently intensify competition among providers of various solutions (KPMG 2011).

## **2.6 Possible challenges in the implementation of solvency II.**

The solvency II directive was approved on April 22, 2009 and to be effective on January 1, 2013 but a delay proposal to January 1 2014 was filed and currently full implementation is said to be due 2016 (European Commission Directive 2009/138/EC). The challenges being faced are a result of the implementation of solvency II.

### **(a) Time consuming**

Solvency II by its nature affects the operations of the whole organization. Its impact affects the organization from the front office to the board of directors as well as from management to IT. This implies that there is need to influence the whole organization resulting to its programme taking several years to fully implement them. This implies that the whole organization will be tied up in compliance issues neglecting the organization's core business.

### **(b) Complexity**

According to Capgemini (2006) insurers may be familiar with risk management strategies like scenario analysis as well as actuarial approaches but not with specific risk dimensions such as probability of economic ruin and value at risk which is integral to the solvency II approach. Also the implementation of the risk management strategies requires experienced personnel for instance actuaries as well as models that are costly to the organizations. Coates et al (2011) also argues that the proposed approach is too complex and some terms of the requirements are difficult to interpret even after clarifying making it difficult to apply them.

### **(c) Disclosure**

Coates et al (2011) expresses concern of the disclosure requirements under solvency II in that there is some confidential information which is said to be sensitive and misinterpretation of that information may highly cost the organization. This was also supported by Ducoffe and Chanson

(2013) as they mentioned that too much information to consumers may be as helpless as too little information.

**(d) Cost of insurance**

The additional security and information that is provided to the consumers attracts extra costs since companies will need to hold more capital as well as change business models. These extra costs will increase the cost of insurance and Coates et al (2011) then argues that will eventually the extra costs to consumers be justified? The increase in the cost of insurance may reduce the uptake of insurance products.

**(e) Integration of risk**

Solvency II requires the integration of risk for companies. This will not be easy for companies that are involved in both life and non life business. This is due to the less sophisticated systems that these companies have and as a result according to the survey carried out by Capgemini (2006) less than half of the companies involved in both life and non life business are currently employing advocated integrated risk management strategies by the framework.

**2.7 The costs of adopting solvency II**

**(a) Supervision costs**

The effectiveness of solvency II is highly dependent on supervisory authorities as they oversee the whole functionality of the regime. According to (European Commission Directive 2009/138/EC) supervisory authorities should be provided with financial resources and they should have relevant expertise so as to achieve their objectives.

**(b) Compilation of data**

The effectiveness of solvency II is dependent on the compilation of adequate, accurate, reliable, complete and clean data. According to Oyugi and Mutuli (2013) the collection of data could be costly and time consuming especially in Africa where there are only a few notable stock exchanges that can provide credible data.

### **(c) Skilled resources and models**

Bernardino (2011) mentions that solvency II is mainly focused on the valuation of the balance sheet and the calculation of the capital requirements which. Sherwood et al (2011) argues that the effectiveness of solvency II is also dependent on enterprise risk management. The quantitative aspects of solvency II as well as enterprise risk management requires the use of models. This implies that there is need for an actuarial function and other industry professionals which could be costly for organizations.

### **2.8 The applicability of the risk based approach to solvency management.**

Although solvency II regime is a European regulatory initiative it has both direct and indirect implications to the United States insurance industry and this is because United States companies that are subsidiaries of the European parent will need to be consolidated with their European counterparts (KPMG US 2011). The United States system has been described as a national system or state based in which state regulators afforded protection under the McCarran-Ferguson Act of 1945. However, developments in the past several years since the financial crisis have resulted in significant involvement by the federal government in the insurance sector.

The Dodd-Frank Wall Street Reform and Consumer Protection Act were created among other things and it was meant to reduce excessive risk taking by financial institutions that led to the financial crisis. According to The United States Insurance Financial Solvency Framework (2010) in 2008 through the NAIC, the state insurance regulators in the US embarked on the Solvency Modernization Initiative (SMI) to perform a critical self evaluation development in insurance supervision and international accounting standards to determine their potential use in US insurance supervision. The SMI focuses on 5 key solvency issues which are capital requirements, international accounting, insurance valuation, reinsurance and group regulatory issues (Deloitte 2012). According to the National Association of Insurance Commissioner, the adoption of a risk based regime was as a result of large company insolvencies. Its main aim is to match capital levels of companies to the related risks which raises a safety net for insurers and also provides for regulatory authority's timely action.

As in the case in many other countries in the world, the present supervisory regime in China is based on Solvency I and the lack of risk sensitivity and the absence of an incentive for insurance undertaking to improve the risk management were important reasons for the China Insurance Regulatory Commission (CIRC) to plan a reform to its existing regulatory scheme introduced in 2003 (Van Hulle 2014). Prior to 2012 according to the CARE Conference (2015) there were minimum capital requirements set and CIRC officially launched the China Risk Oriented Solvency System (C-ROSS) in March 2012 and testing started in 2014 with the aim to evaluate the reasonableness and practicability of the C-ROSS formula and full implementation is targeted in 2016 with a transition period with respect to meeting the capital requirements.

C-ROSS also borrows the solvency II three pillar approach with pillar 1 additionally to the solvency II pillar 1 consisting of quantitative requirements for insurance risk, credit risk and market risk. Pillar 2 focuses on risk management as well as dealing with risks that are difficult to quantify. These are operational risks, strategic risks, reputational risks as well as liquidity risks. Pillar 3 looks at the market discipline through public disclosure or transparency of insurance companies operations and dealings.

The Kenya Insurance Act was put in place 1984. The collapse of many insurance companies in Kenya during the 1990s coupled with numerous problems that bedeviled the sector necessitated amendments to the relevant laws governing insurance. The first set of significant amendments to the act was made in 2003 and these mainly dealt with mismanagement and transparency. In 2006 there were amendments with the effort to enhance the ability of payment of claims and 2010 one core function set out in the amendment was to monitor the risk profile on insurers Gadaffi (2014). In 2013 the supervision framework for the Kenya insurance industry shifted from compliance based supervision to risk based supervision (IAIS 2015).

Due to the 2008 global financial crisis, South Africa reviewed its regulatory framework on its financial sector. With the adoption of the solvency II in Europe, South Africa have adopted an equivalent framework for insurers called the Solvency Association and Management Framework (SAM) which replaced certain sections of the Long Term Insurance Act 52 of 1998 and the short term Insurance Act 53 of 1998 (International Reinsurance Letter 2015). The risk based frame

work mainly seeks to address the short coming so for the global financial crisis that is the lack of sufficient mechanisms to provide supervisors with early warning of potential solvency concerns as well as risk management (Khoza, 2015).

## **2.9 Conclusion**

The chapter gave us an overview of the risk based approach in the insurance sector. Despite the fact that risk based approach will not end all the insurance industry predicaments it has proven to be of significant changes in the industry. To critically analyze the relevancy and applicability of the intended objectives in the Zimbabwean insurance industry, we have to employ the research methods detected in the following.

## CHAPTER 3

### RESEARCH METHODOLOGY

#### 3.0 Introduction

This chapter focuses on the research design and methodologies the researcher employed to collect data and a detailed description of the procedure applied in conducting the research, the research instruments, sampling techniques and sources of data.

#### 3.1 Research design

A research design is a programme which guides the researcher in the process of collecting data, analyzing and interpreting it (Keith et al 2007). Research design enables the researcher to answer questions as clearly as possible through the evidence obtained.

Collins and Hussey (2009), notes that the determination of a research design gives a detailed plan which one will use to guide and focus his research. A descriptive research design was used for the purpose of this study because it allows for the fusion of both qualitative and quantitative data. In this survey, questionnaires and interviews were used to obtain information from respondents on their views regarding the adoption of a risk based approach to solvency management in Zimbabwe. Questionnaires enabled the researcher to get honest opinions of respondents on the subject as there is an element of anonymity associated with questionnaires whereas interviews gave the researcher an opportunity to further probe as well as observe and gather information through nonverbal cues.

#### 3.2 Target Population

Collins and Hussey (2009) define a study population as a precisely defined body of people or objects under consideration for statistical purposes. According to Cooper and Schiniller (2003), a population is a universe of objects whose attributes or factors are to be investigated.

The targeted population for this research consists of the Insurance and Pension Commission (IPEC), 24 operational short term insurance companies and 9 short term reinsurance companies.

General Managers (operations) of short term insurance and reinsurance companies were targeted respondents. This is because they have the knowledge regarding the capital positions and systems of their organizations and are also involved in the decision making of the overall operations of the organization. However, the researcher could not collect data from the whole population due to financial constraints and limited time so a sample representative of the population was selected.

### **3.3 Sampling techniques**

The main decision which the researcher has to make is to whether go for a census or sample research. According to Kothari (2007) census means each and every element which forms the part of the research will be investigated and sample means few elements which represent the entire research would be investigated. Practically it is not possible to conduct a census. Hair (2003) defines sampling as a process of selecting a relatively small number of elements from a larger defined group of elements so that the information gathered from the smaller group allows one to make judgments about the larger group.

According to Brink (1996) a sample is a subset of a population selected to participate in the study, it is a fraction of the whole, selected to participate in the research project. The concept of sample arises from the inability of the researcher to test all the individuals in a given population (Castillo 2009). Sampling is therefore a process of selecting group(s) of subjects for a study in such a way that the individuals represent the larger group from which they were selected. The sample in this research involves short term insurers and reinsurers as well as the regulator.

#### **3.3.1 Random Sampling Method**

There are basically four methods of sampling under random sampling.

##### **(a) Simple random sampling**

This method ensures that each element of the population has an equal probability of being selected to become part of the sample (Wagner 1993).

### **(b) Systematic sampling**

Systematic sampling involves the selection of elements using a fixed or systematic interval until the desired sample is reached (Allison *et al*; 2001).

### **(c) Stratified sampling**

Stratified sampling involves dividing the population into subgroups, with each subgroup having relatively uniform elements. Once the strata have been identified a simple random sample is selected from each stratum separately, the sample corresponding to the proportion of elements in each stratum. Stratified sampling is used when the population is assumed to consist of a number of smaller subgroups or sub populations such as male or female which are thought to have an effect on the data to be collected (Wagner 1993).

### **(d) Cluster sampling**

Cluster sampling is a probability sampling procedure in which elements of the population are randomly selected in naturally occurring groups called clusters.

## **3.4 Sample Size**

The term sample size relates to the number of the variables within a population. Evans (2000) defines a sample size as the number of observations in a sample. Saunders et al (2007) states that a sample size is determined based on a 95% confidence interval and Haralambos and Halbon (1990) explains that a sample size should be more than 33% of the target population since the larger the sample, the greater the level of accuracy. The researcher used stratified sampling as it ensures representation of all the intended participants. The grouping of the targeted population also reduces bias as it allows for the questioning and interviewing of different participants with different views. There is an estimate of one general manager (operations) in every insurance and reinsurance. The researcher used a sample of 18 respondents comprising of general managers (operations) as a representation of the whole target population of 33 general managers (operations) and the regulator.

### **3.5 Research instruments and Data collection**

Data collection steps comprises of the boundaries for the study, collecting information through unstructured or semi structured observations and interviews, documents and visual materials as well as establishing the protocol for recording information (Creswell (2009)).The researcher used the survey design in which questionnaires and interviews data collection instruments were used. The data sources can be categorized into primary and secondary data.

### **3.6 Primary Data Sources**

Lancaster (2005) defines primary data as facts used in a research originally obtained through the direct effort of the researcher through surveys, interviews and direct observation. The researcher used questionnaires and interviews as primary data sources.

#### **3.6.1 Questionnaires**

A questionnaire is a tool for collecting and recording information about a particular issue of interest (Corporate Research and Consultation Team 2008).It comprises of list of questions which include clear instructions as well as options and space for answers. The questionnaires were delivered by the researcher in person to the selected short term insurers and agreed on the date of collection with the respondents.

#### **Advantages**

- (a) Questionnaires allows for a quick and easy contact of large numbers of people. They can be distributed to different people at the same time and collected within a short period.
- (a) They are easy and quick to interpret and provide anonymity of respondents which encourages them to give honest opinions.
- (b) A questionnaire is standardized in that it asks the same questions in the same manner.
- (c) They avoid interview bias. Personal questions are often more willingly answered as the respondent is not face-to-face with the interviewer.

#### **Disadvantages**

- (a) The respondent may not clearly understand the question and it's difficult to know especially when the researcher is not present.

- (b) The respondents have a tendency of discussing the questions with others so as to complete the questionnaire and this may result to biased answers.
- (c) Questionnaires do not permit the observation of facial expressions and gestures yet they are essential for evaluation of responses and does not also allow for further probing so as to achieve clarity and understanding.
- (d) The targeted respondents may not complete the questionnaire. For instance, a busy manager may ask a personal assistant to complete it on their behalf.

### **3.6.2 Personal Interviews**

Panneerselyam (2005) defines an interview as a conversation that is initiated by the interviewer for the purpose of obtaining relevant information. Personal interviews can be unstructured that is are informal and casual or can be structured that is are formally set questions. The researcher made use of structured interviews after making appointments with some managers in the short term industry.

#### **Advantages**

- (a) The researcher benefits from face-to-face communication with the interviewee and thus any misunderstandings are cleared immediately and the researcher can ask probing questions.
- (b) The respondents through interviews can freely express themselves and can benefit from non-verbal communication.
- (c) Interviews are less time consuming.

#### **Disadvantages**

- (a) The presence of the interviewer may influence the interviewees such that they may end up giving biased responds so as to please the interviewer.
- (b) Interviews require good interpersonal skills to build the trust of respondents as well as to get unbiased responses.
- (c) Interviews are costly in terms of transportation.

### **3.7 Secondary Data**

This involves the collection of data from sources that are already available. Lancaster (2005) notes that the sources can be categorized into raw secondary and compiled secondary data. Compiled secondary data is data that would have been selected and summarized whereas raw secondary data is that which diminutive has been done. Secondary information contributed immensely to the research effort as the researcher consulted several sources of data available on the topic area of the study.

#### **3.7.1 The Internet**

The university allowed the researcher to carry out her research through accessing information on the internet. This information was accessed from other scholars work, eBooks and e-journals through the internet.

#### **Advantages**

- (a) The internet provides recently researched data that is not found in the library.
- (b) It is easy to access and it helps the researcher to screen out unnecessary data.

#### **Disadvantages**

- (a) It can be difficult to retrieve information from the internet since its efficiency is dependent on network servers which can be highly congested sometimes.
- (b) It is time consuming as the researcher has to screen the data provided on internet.

#### **3.7.2 Textbooks and Journals**

The researcher consulted numerous professional journals and text books in this investigation towards. The background of solvency management in the short term industry was extracted from journals and they helped the researcher know researches that have been done by other scholars that are in relation to solvency management.

### **3.8 Summary**

This chapter focused on the summarizing of the methods and techniques used to gather data for the research. The data range from primary to secondary and secondary data was mainly used on

the literature review whereas primary data forms the next chapter in which data analysis is focused on.

## CHAPTER 4

### DATA ANALYSIS AND PRESENTATION

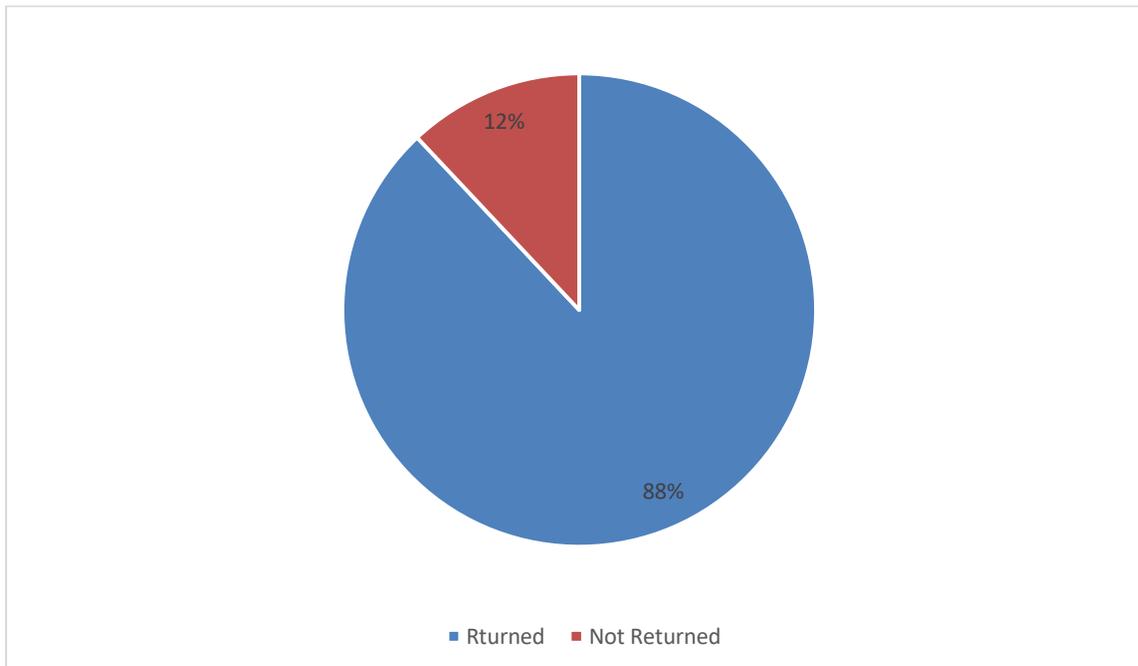
#### 4.0 Introduction

This chapter presents a description and analysis of data gathered through the use of questionnaires and interviews. Tables and graphs were used for quantitative data presentation whereas qualitative data was used for analysis.

#### 4.1 Questionnaire response rate.

De Vaus (2002) defines response rate as a percentage of the sampled people that actually completed or participated on the survey. The researcher managed to collect 15 questionnaires of the total of 17 questionnaires distributed to the chosen sample. This shows a response rate of 88% which did not affect the overall results of the research. The response rate is presented in figure 4.1 below

**Figure 4.1 Response rate analyses**



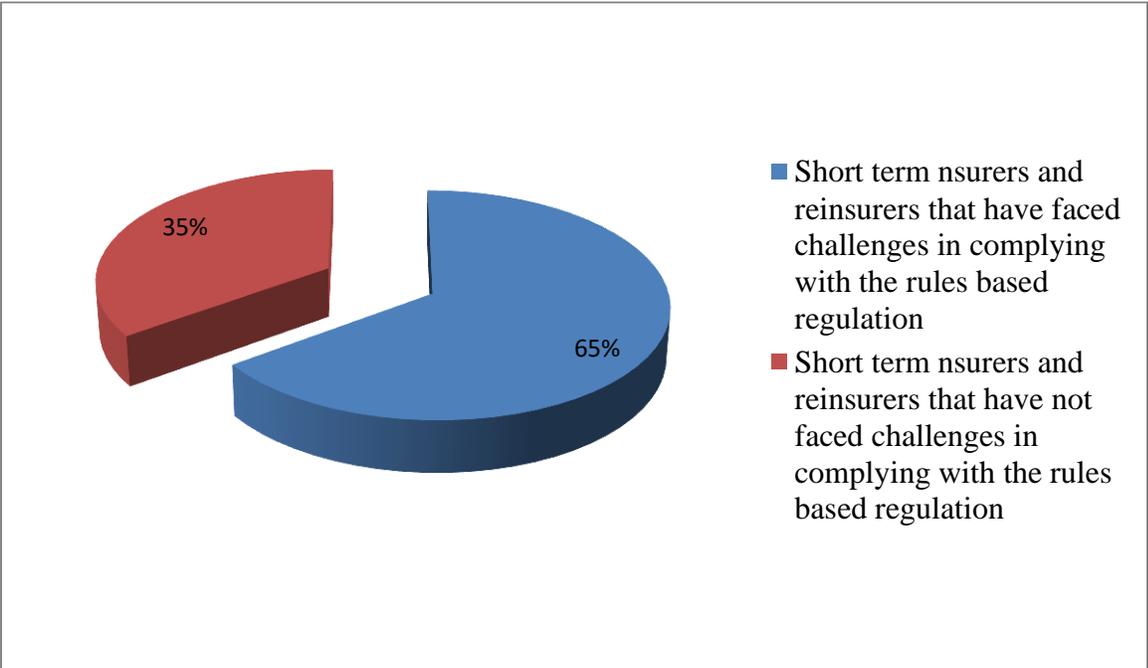
**Source: Primary data**

**4.2 Data Analysis and Presentation**

**4.2.1 Short term insurers and reinsurers faced with challenges of complying with the capital based regulation.**

The researcher mentioned the above question in order to find out the number of short term insurers and reinsurers that have faced challenges in complying with the capital based regulation. Challenges of compliance with the capital based regulation were indicated by 65% of the respondents. Some operated for a quarter or two with capital below the set minimum whereas some had to run around and raise the required capital at a very costly rate. However, 35% of the respondents did not face any capital based regulation compliance challenges. The findings are illustrated in figure 4.2

**Figure 4.2 Insurance players facing compliance challenges.**

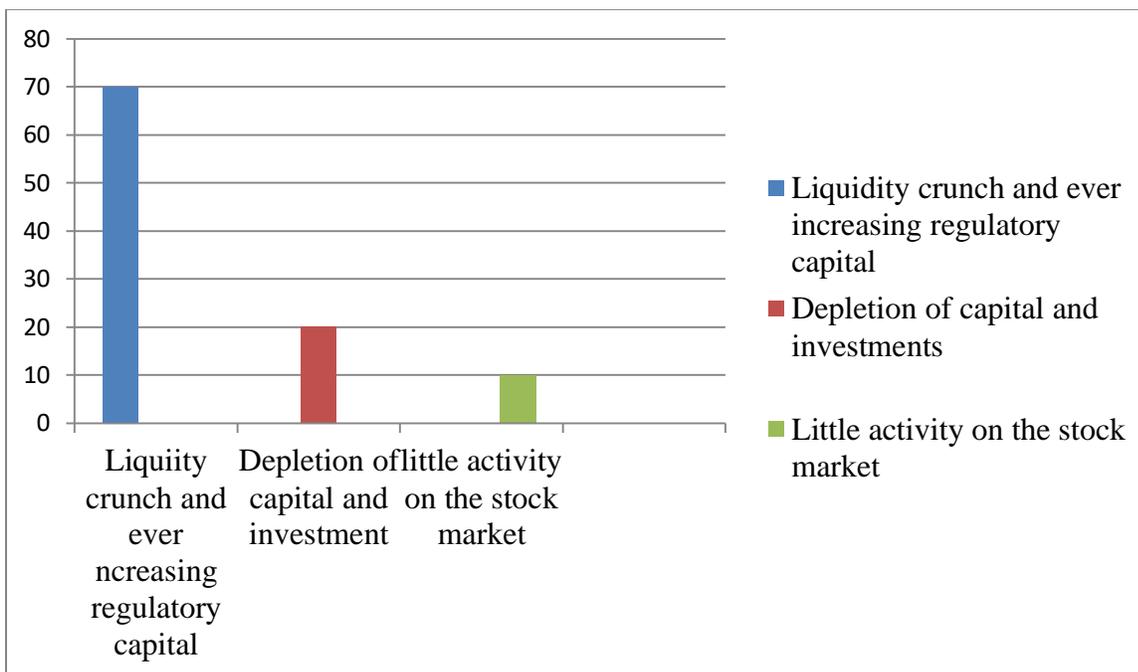


**Source: Primary data**

#### 4.2.2 Challenges faced by short term insurers and reinsurers in complying with the capital based regulation.

This question was designed to assess the challenges that the short term insurers and reinsurers faced. The liquidity crunch and ever increasing regulatory capital was stated by 70% of the respondents as they constitute the greater percentage of the challenges they faced in complying with the capital based regulation. The regulators are ever increasing the minimum capital requirement as a way of hedging against risk but are not considering the low market penetration rate the insurance industry is currently facing. The premiums written and the capital requirement are not corresponding. However, 20% of the respondents mentioned the depletion of their capital and investments during the dollarization era as a challenge they faced in meeting capital requirements. The remaining 10% indicated that they faced challenges of capital based regulation compliance because there is no or little activity on the stock market. The findings are illustrated in figure 4.3 below

**Figure 4.3 Challenges faced by insurance players.**

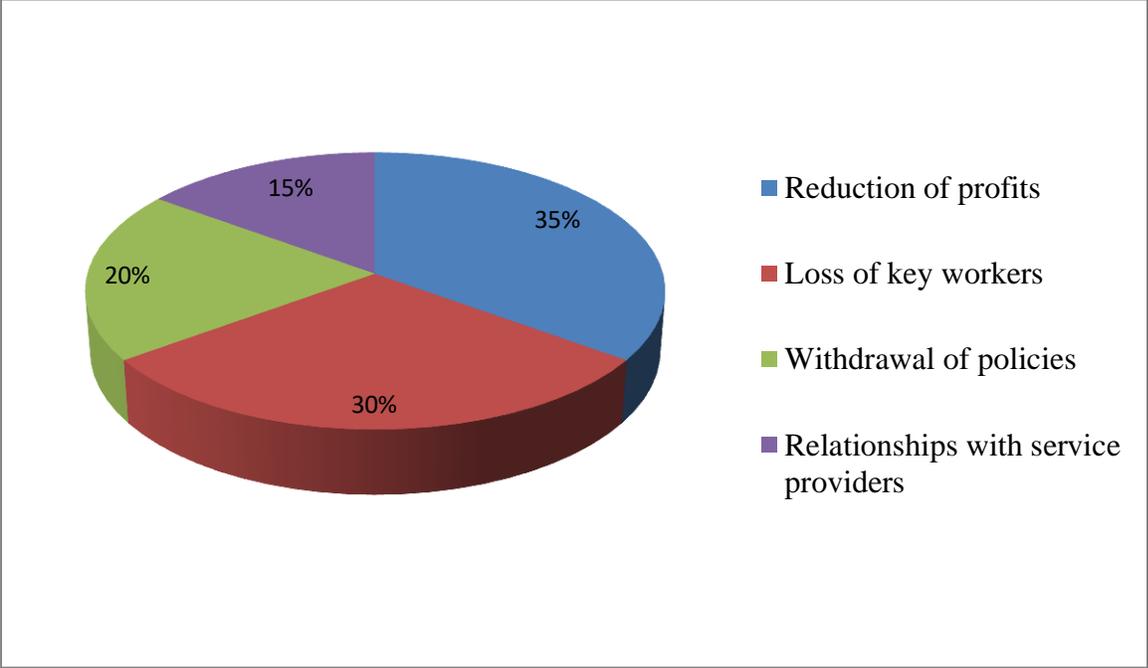


**Source: Primary data**

**4.2.3 Effects of compliance challenges.**

The question sought to find out the effects the short term insurance industry faced due to failure to comply with the capital based regulation. The high costs of accessing external funds as stated by 35% of the respondents resulted in the reduction of profits. The perceived instability of companies as cited by 30% of the respondents brought about by warnings from the regulator resulted in companies losing their key workers. A number of policyholders withdrew their policies after challenges' of compliance were publicized; this according to 20% of the respondents was an effect of bad reputation. Compliance challenges' as indicated by 15% of the respondents resulted in suspension which affected their relationships with service providers. The findings are presented in figure 4.4 below

**Figure 4.4 Effects of compliance challenges.**



**Source: Primary Source**

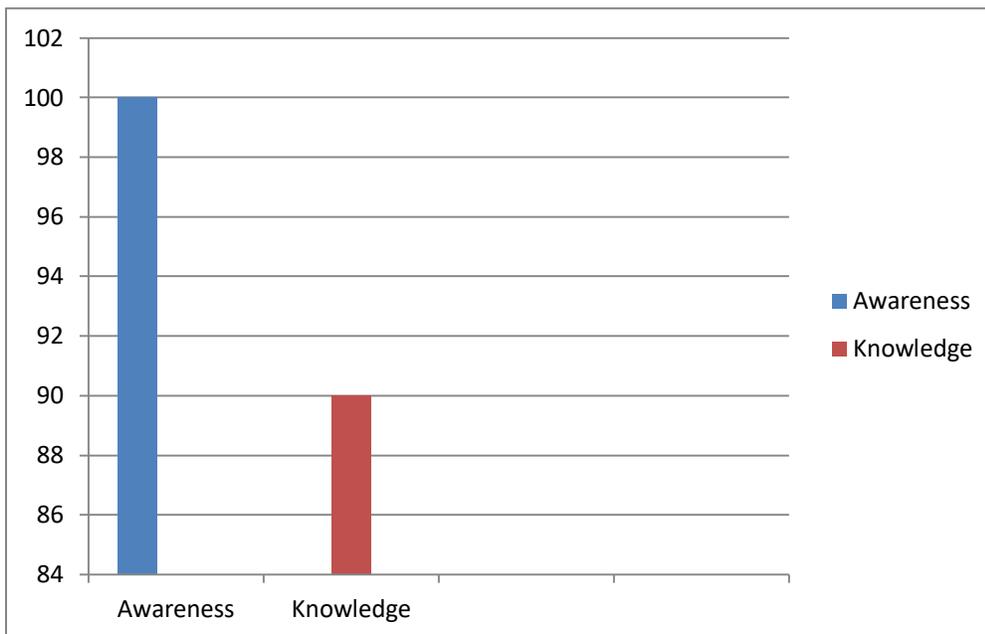
#### 4.2.4 The weaknesses of the capital based approach in solvency management.

Respondents indicated that insurance players face different risks which require a different capital back up. The capital based approach on the other hand uses uniform factors when setting the minimum capital requirement. The other weakness of the capital based approach is that it perpetually changes therefore presenting a level of uncertainty to insurance players.

#### 4.2.5 Knowledge and awareness of solvency II.

All respondents are aware of the solvency II framework. However, their knowledge of the solvency II framework varies with 90% of the respondents having an in-depth knowledge of solvency II. They were able to outline the components as well as the objectives of the framework. The awareness and knowledge of the solvency II framework is illustrated on figure 4.5 below

**Figure 4.5 Knowledge and awareness of solvency II framework**



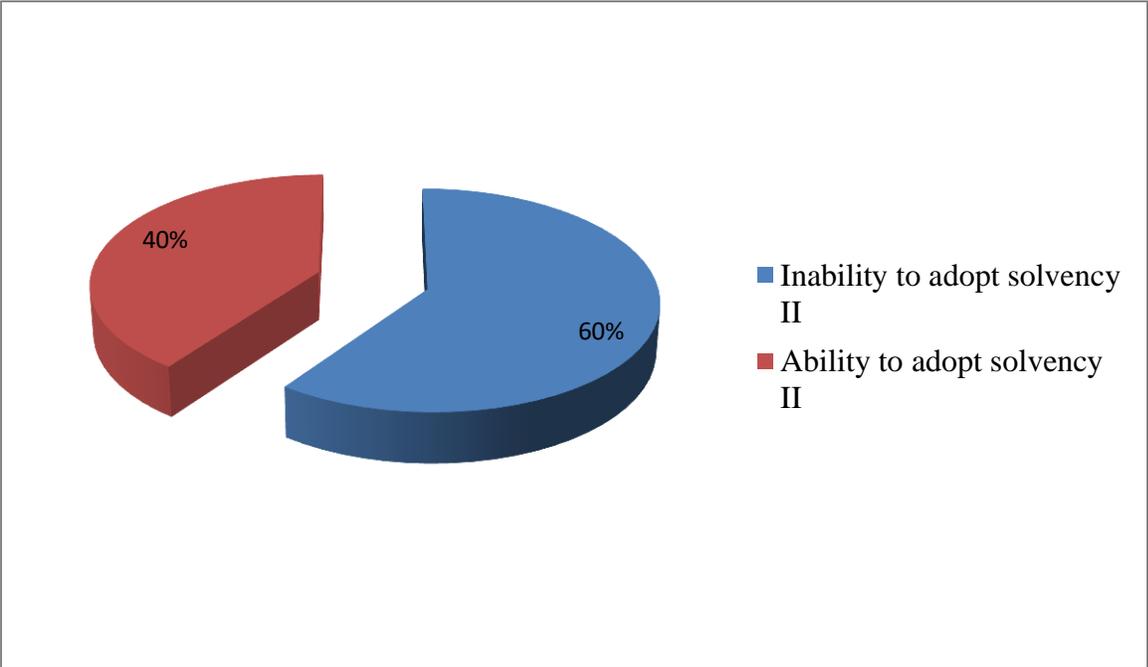
**Source: Primary data**

#### 4.2.6 Ability to adopt the solvency II regime.

The question sought to determine the ability of short term insurance companies to adopt the solvency II framework. Confidence in the ability to adopt solvency II was indicated by 40% of

the respondents and this comprises of insurance giants that are currently heavily capitalized. 60% of the respondents mainly constituting of small insurance players stated that they are not able to adopt solvency II. The results are illustrated on figure 4.6 below

**Figure 4.6. Ability to adopt the solvency II regime**

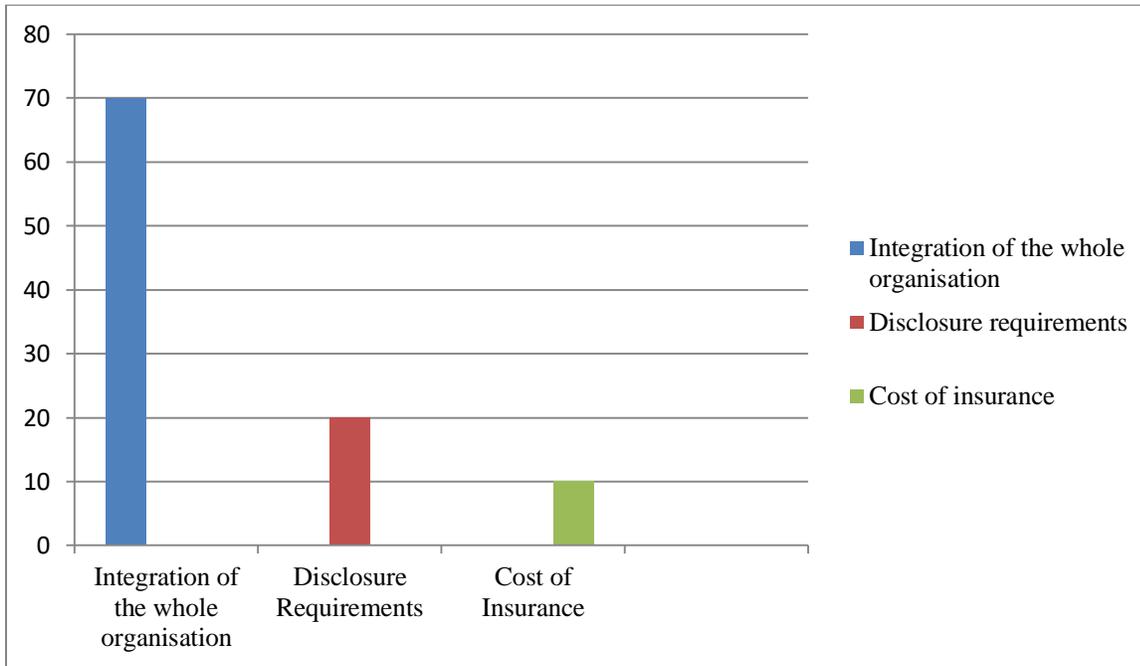


**Source: Primary data**

**4.2.7 Challenges of adopting solvency II.**

This enquiry was made to find out the challenges of adopting solvency II. Respondents appreciate that solvency II advocates for a holistic approach to risk management and according to 70% of the respondents it requires the integration of the whole organization which presents a challenge for short term insurers and reinsurers. However 20% of the respondents were worried about a possible challenge that is presented by pillar III disclosure requirements of solvency II. The emphasis on higher levels of transparency and disclosure to the public and the regulators may result in the disclosure of sensitive information which if misunderstood may ruin the reputation of a company. The remaining 10% indicated that the increase of cost brought about by the adoption of solvency II may increase the cost of insurance which may reduce the uptake of policies. Findings presented in figure 4.7 below

**Figure 4.7 Challenges of adopting solvency II.**

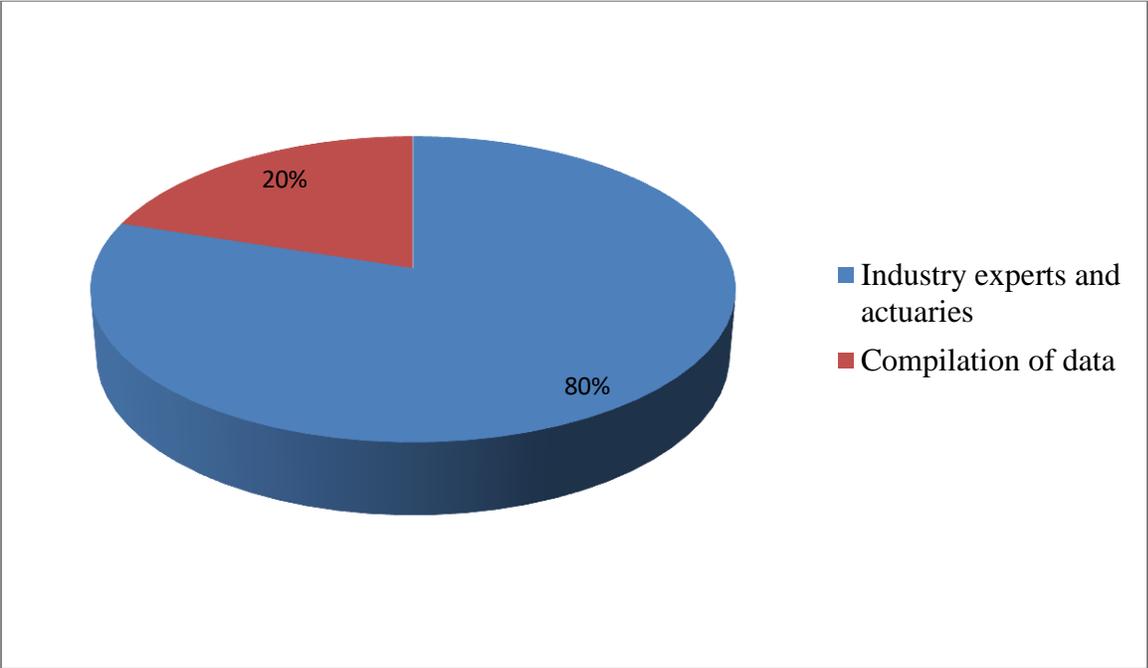


**Source: Primary Data**

#### **4.2.8 Costs of adopting solvency II.**

This question was probed with the aim of finding out the costs associated with the implementation of solvency II. The setting up of models and risk management systems which requires industry experts and actuaries was mentioned by 80% of the respondents as the main cost that is associated with the adoption of solvency II. The other 20% stated that the need for compilation of adequate data that comes with the adoption of solvency II presents a high cost to organizations. Respondents highlighted that these costs are more of a challenge to countries like Zimbabwe due to lack of experience and data compilation skills. The findings are presented in figure 4.8 below

**Figure 4.8 Costs of adopting solvency II**

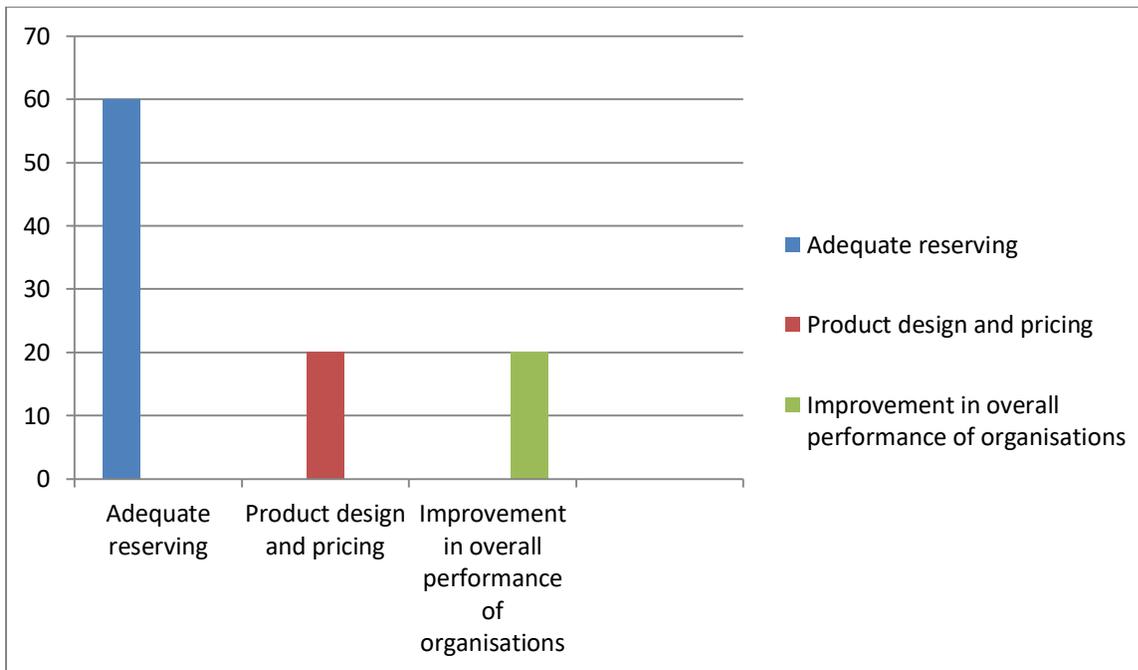


**Source: Primary Data**

**4.2.9 Benefits of the adoption of solvency II.**

The question was designed to determine the benefits that accrue to an organization by adopting solvency II. Solvency II requires the market consistent valuation of technical reserves and 60% of the respondents agrees that it would help insurance players to make adequate reserves. 20% of the respondents mentioned that solvency II would reduce rate undercutting as risks and returns of business lines are assessed therefore helping in the product design and pricing. Although solvency II aims to protect consumers which ultimately improve customer and public confidence 20% of the respondents outlined that solvency II improves the overall performance of short term insurers and reinsurers. The findings are illustrated in figure 4.9 below.

**Figure 4.9 Benefits of adopting solvency II.**

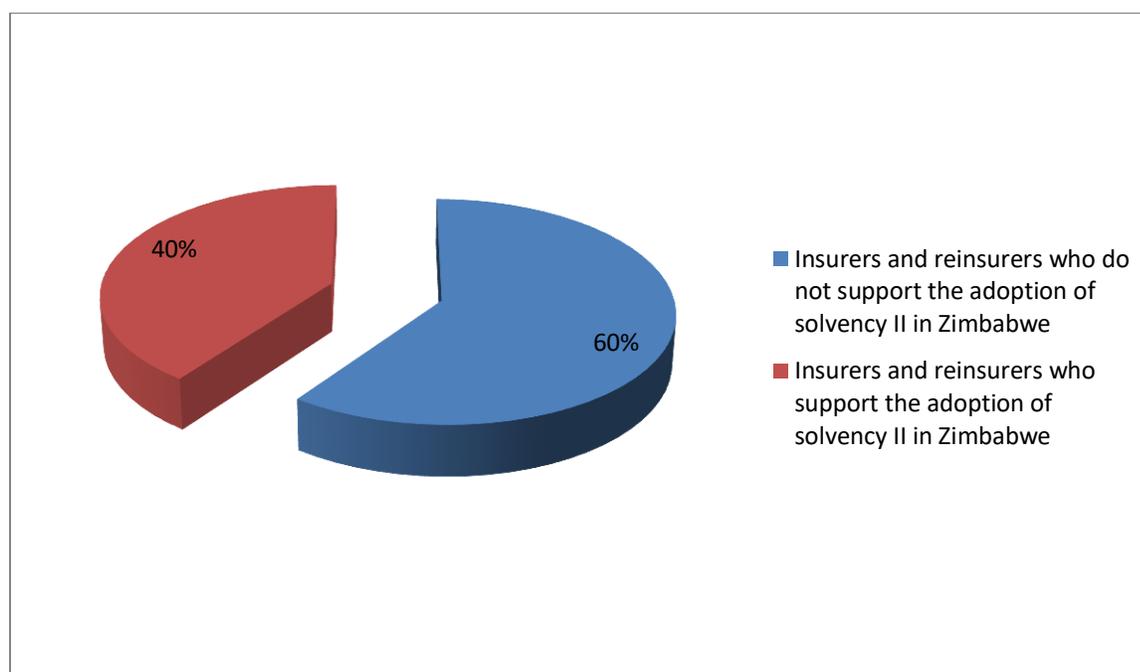


**Source: Primary data**

#### **4.2.10. The adoption of solvency II in the Zimbabwean short term industry.**

The question sought to find out what respondents think in relation to the adoption of solvency II in the Zimbabwean short term insurance sector with the aim to manage solvency. The adoption of solvency II is supported by 40% of the respondents and they considered all the benefits that will accrue to their organization by adopting the framework as well as the improvement of the industry as a whole. The rest of the 60% do not support its adoption and they argue that the European Union with all its resources is looking forward to the full implementation of solvency II in 2016 yet it was approved in 2006. This is due to the level of complexity as well as inherent costs. They therefore concluded that the Zimbabwean economy and industry set up do not support such sophistication. The findings are illustrated in figure 4.10 below:

**Figure 4.10 Preparedness of the adoption of solvency II**



**Source: Primary data**

### **4.3 Personal interviews conducted with the regulator.**

A structured interview was scheduled and conducted with the Insurance and Pensions Commission IPEC personnel. As a way of regulating insurance players IPEC ensures that minimum capital requirements are adhered to by insurance players so that they are able to meet their obligations.

#### **4.3.1 The reasons of failure to meet minimum capital requirements by short term insurers and reinsurers.**

The regulator highlighted that there are poor returns on most insurer's investments and also most of the insurer's funds are tied up in premium debtors which makes it difficult for them to meet required capital. Respondents also mentioned that some of the insurance players are greatly affected by rate undercutting and lack of product innovation which in turn reduces their retained profits.

#### **4.3.2 Methods used for coming up with minimum capital requirements.**

This question was probed so as to find out what uniform factors are used to determine the minimum capital requirement. The respondents stated that the balance sheets of insurance and reinsurance companies are considered and an average capital requirement is extracted from this.

#### **4.3.3 The inclusion of solvency II in the current regulatory framework.**

The respondents pointed out that they are currently contemplating on the idea of merging the current solvency system with solvency II. This however would require time, funding as well as willingness and preparedness of the insurance players.

#### **4.3.4 Preparedness of the short term insurers and reinsurers to adopt solvency II**

The respondents cited poor data collection skills and inexperience as a major hindrance of insurance companies and reinsurers to the adoption of solvency II. The difficulties of the implementation of pillar 1 as compared to pillar II and III were however mentioned as it was explained that pillar II and pillar III can be adopted in Zimbabwe with minimal difficulty. As far as the preparedness of insurers and reinsurers is concerned, the respondents argue that the implementation of solvency II would take time and high cost hence their ability to implement solvency II is limited.

#### **4.4 Summary**

This chapter focused on the findings, data interpretation and analysis. The data gathered was presented in the form of pie charts, bar graphs and tables.

## CHAPTER 5

### CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter summarizes the entire research project, conclusions and recommendations based on the research were drawn. The research intended to explore the adoption of a risk based approach to solvency management of short term insurers and reinsurers in Zimbabwe.

#### 5.1 Summary of findings on research objectives

The following summary can be drawn based on research findings

- (a) A substantial proportion of short term insurers and reinsurers face challenges in complying with the rule based regulations.
- (b) The ever increasing regulatory capital, the liquidity crunch and the depletion of capital and investments due to dollarization were cited by the respondents as the major challenges they faced in complying with the minimum capital requirement.
- (c) The short term players facing compliance challenges were affected through suspension which restricted them from writing new business as well as renewing policies which decreased their profits. Bad publicity also resulted in them losing quite a number of policies and some of their key workers left for other companies due to the perceived instability.
- (d) The capital based approach is a one size fits all approach in which general factors are used to set a minimum capital requirement whereas the insurance industry comprises of different companies with different risks.
- (e) The solvency II regime is a well appreciated subject in the Zimbabwean short term insurance industry. Respondents cited the benefits of the adoption of the solvency II approach as improved product design and pricing, enhancement of performance, positive impact on the organization and adequate reserving.
- (f) The implementation of solvency II in Zimbabwe comes with a number of challenges which includes the integration of risk in organizations, the possibility of disclosure of sensitive information and a possible increase in the cost of insurance.

- (g) There are a number of costs that are associated with the implementation of solvency II in Zimbabwe and these are the costs of compilation of data and set up of internal models, the need for actuaries and industry professionals and regulators risk management systems.
- (h) A substantial proportion of short term insurers and reinsurers are not able to implement solvency II and do not support its adoption in the Zimbabwean insurance industry.

## **5.2 Conclusion**

Capital based approach is not a very effective tool to solvency management in the Zimbabwean insurance sector. Window dressing of accounts, failure to meet the set minimum capital requirement, suspension and deregistering of companies are some of the effects of using the capital based approach to solvency management. Capital based approach encourages insurers to focus on achieving compliance yet neglecting the management of their specific risks in relation to their own funds. The regulators on the other hand are also mainly concerned with the compliance of the (re) insurance players with capital requirements than their prudent actions in business operations and risk management strategies. The use of capital based approach as a standalone tool has proved to be less effective since there are a number of loop holes and other strategies need to be adopted to curb problems caused by capital based approach.

## **5.3 Recommendations**

The capital based approach is currently being used as solvency management tools in the Zimbabwean insurance sector where a minimum capital requirement is set. This is meant to safeguard policyholders from the insolvency of insurance companies. The study has revealed a number of weaknesses of the solvency management tool currently in use. The regulator is also to blame as they put much emphasis on the minimum capital requirement compliance. This puts much strain on the insurance players as they end up employing unethical strategies such as window dressing of accounts in order to satisfy the regulator. Critical risk elements such as investment of premium in prescribed assets instruments are forgone, risk management departments are closed as a cost cutting measure and a way of increasing retained profit so as to meet the set capital requirement. The following recommendations were made in an effort to improve solvency management in the Zimbabwean short term insurance industry:

### **5.3.1. To the regulator**

#### **(a) Modification of the current regulation for short term insurance and reinsurance companies.**

The merging of the Own Risk and Solvency Assessment (ORSA) model and current regulation can help (re)insurance companies better manage their risks. This would take the form of a capital requirement being set and companies have the option to take on the ORSA model in which they will be required to report on the assessment of their risks and risk management strategies in sync with sufficient own funds. If the company can prove that the capital set is too high for their level of business and risks, it therefore can be reduced accordingly. The use of ORSA limits insurance companies from accepting risks which are above their capacity. Cases where a company's pool is wiped out by a single risk are minimized, issues of suspension and deregistering of insurance companies are reduced and this has the effect of improving the image of the whole insurance sector.

#### **(b) Reporting rules**

In addition to the current reporting and disclosure system in which IPEC publish a quarterly report and public insurance players publicize their financial statements quarterly, the financial elements of the companies should also be clearly stated and broken down. This applies on elements like fixed assets, income and expenses in which total figures are put yet what comprises those totals is not mentioned. The regulators can also appoint external auditors to assess companies so that they don't completely rely on information provided by insurance players for reporting. This will reduce the window dressing of financial results by insurers.

#### **(c) Guarantee or policyholder's protection fund.**

The regulator can incorporate the formation of a guarantee or policyholder protection fund. This provides last resort protection to policyholders and beneficiaries in case of failures in insurance undertakings. Insurers will be required to contribute a certain percentage to the fund depending on their liabilities. The use of the protection fund will be triggered only when other protection mechanisms fail. This will not only protect the policyholders but will increase market confidence and stability.

#### **(d) Further research on risk based approaches**

A further research on the risk based approach could be conducted. Delays in other countries as well as weaknesses of the frameworks could be better understood. This will assist in tailor making a risk based framework for the Zimbabwean insurance industry.

### **5.3.2. To the short term insurance and reinsurance companies**

#### **(a) Short term (re) insurers should create effective risk management systems.**

The adoption of effective risk management systems helps companies better manage their risks hence reducing their risks of insolvency. These systems take the form of proactive and continuous monitoring of strategies, processes and reporting of the activities of an organization. This means that the risk management function is also vital in organizations for effective risk management hence risk management departments should be incorporated into the organizational structures.

#### **(b) They should have effective capital management systems.**

The ongoing monitoring of capital adequacy in companies will help them comply with the required minimum capital therefore reducing the possibility of insolvency as well as achieve capital adequacy. This involves the assessment of available capitals in relation to the risks posed by the activities of an organization. Capital management systems also involve the monitoring of individual solvency requirement and capital buffer in addition to regulatory compliance. This will allow them to assess the performance of their measures of capital. Individual levels of capital which signals the organization any need of recapitalization could also be set. This systems will assists insurance players in managing their solvency.

### **5.4 Summary**

The conclusions from the research findings were drawn in this chapter. It was concluded that the capital based approach as a standalone tool is less effective in solvency management. However, it was revealed that the adoption of a risk based approach in the Zimbabwean insurance industry is difficult .A recommendation of current regulation modification was made by the researcher as one of the strategies to manage solvency in the insurance industry.

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## APPENDIX A



Midlands State  
University



### FACULTY OF COMMERCE

### DEPARTMENT OF INSURANCE AND RISK MANAGEMENT

Midlands State University  
Faculty of Commerce  
Department of Business management  
P. Bag 9055  
Gweru

Dear Sir/Madam

**REF: Request for information needed for research**

This questionnaire was prepared by Placxedes Mukonzo (Registration Number R125253N) fourth year student at Midlands State University studying a Bachelor of Commerce in Insurance and Risk Management Honors Degree. The researcher is conducting a research project entitled **EXPLORING A RISK BASED APPROACH TO SOLVENCY MANAGEMENT IN THE ZIMBABWEAN SHORT TERM INSURANCE INDUSTRY.**

All the information and expressions to be expressed by the respondents will be confidentially and strictly handled. The findings of this research are for academic use only. If you wish to get more information about this study, you are free to contact the chairperson of the Department of Insurance and Risk Management, Mr. F. Makaza on his email [makazaf@msu.ac.zw](mailto:makazaf@msu.ac.zw) or mobile number 0774 620 669

Your co-operation will be greatly appreciated

Yours sincerely

Placxedes Mukonzo  
077641901

**APPENDIX B**  
**SHORT TERM INSURERS AND REINSURERS-QUESTIONNAIRE**

Tick where appropriate

(a) Have your organization ever faced challenges in complying with the capital based regulation?

Yes

No

(b) If Yes, briefly explain the challenges that the organization have faced in complying with the capital based regulation?

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.....  
.....  
.....

(c) To what extent was your organization affected by failure to comply with capital based regulation?

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(d) What do you think are the weaknesses of the capital based approach to managing solvency?

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.....

.....

**(e)** The insurance sector worldwide is moving towards the implementation of solvency II, do you think Zimbabwe should do the same?

Yes

No

**(f)** If Yes, please explain your reasons

.....  
.....  
.....  
.....

**(g)** Do you think your organization is able to adopt the solvency II framework?

Yes

No

**(h)** What do you think are the challenges your organization may face in implementing Solvency II?

.....  
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.....

**(i)** What do you think are the costs of adopting solvency II to your organization?

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**(j)** What do you think are the benefits of adopting solvency II to your organization?

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**(k)** Do you think Solvency II could be adopted in the Zimbabwean insurance industry?

Yes  No

**(l)** If yes, please briefly give details of your answer.

.....  
.....  
.....  
.....

## **APPENDIX C**

### **INTERVIEW GUIDE FOR SHORT TERM INSURERS AND REINSURERS**

- (a)** Have your organization ever faced challenges in complying with the capital based regulation?
- (b)** What are the challenges that the organization have faced in complying with the capital based regulation?
- (c)** To what extent was your organization affected by failure to comply with capital based regulation?
- (d)** What do you think are the weaknesses of the capital based approach to managing solvency?
- (e)** The insurance sector worldwide is moving towards the implementation of solvency II, do you think Zimbabwe should do the same?
- (f)** Do you think your organization is able to adopt the solvency II framework?
- (g)** What do you think are the challenges your organization may face in implementing Solvency II?
- (h)** What do you think are the costs of adopting solvency II to your organization?
- (i)** What do you think are the benefits of adopting solvency II to your organization?
- (j)** Do you think Solvency II could be adopted in the Zimbabwean insurance industry?

## **APPENDIX D**

### **INTERVIEW GUIDE FOR THE REGULATOR**

- (a)** What might be the reasons why short term insurance companies fail to meet the minimum capital requirement?
- (b)** What basis is used for the calculation of minimum capital requirement for short term insurance companies?
- (c)** Does the current regulatory framework allow for the inclusion of Solvency II?
- (d)** How prepared is the short term insurance industry in adopting the Solvency II framework?