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ZIMBABWE IN CONJUNCTION WITH
THE NATIONAL UNIVERSITY OF
SCIENCE AND TECHNOLOGY**

DEPARTMENT OF INSURANCE AND ACTUARIAL SCIENCE

FELLOWSHIP

**An analysis of the relationship between economic growth and short-
term insurance development in Zimbabwe.**

By

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APPROVAL FORM

The undersigned certify that they have read and recommend to the Insurance Institute of Zimbabwe research entitled:

**“An analysis of the relationship between economic growth and short-
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DECLARATION

I, Biata Sibongile Ncube hereby declare this research on AN ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH AND SHORT-TERM INSURANCE DEVELOPMENT IN ZIMBABWE is my own work. I wish to state that to the best of my knowledge it contains no material published by another person or material which has been accepted for the award of any other Insurance Fellowship of the Insurance Institute of Zimbabwe, except where due acknowledgement has been made in the text.

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RELEASE FORM

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AN ANALYSIS OF THE RELATIONSHIP
BETWEEN ECONOMIC GROWTH AND
SHORT-TERM INSURANCE DEVELOPMENT

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DEDICATION

This dissertation is dedicated to my sister Bianca who encouraged me to pursue my dreams and finish my dissertation.

ACKNOWLEDGEMENTS

Firstly, I would like to thank God for the precious gift of life and many other uncountable blessings. I express my sincere gratitude to Mr. S Sibanda, project supervisor, for his constructive criticism, patience and encouragement. The research would not have been a success without support from management and staff at Zimnat Insurance Company and Broksure Insurance Brokers, insurance practitioners and most importantly the respondents drawn from the insured public. May the Almighty God bless you exceedingly and abundantly.

ABSTRACT

The study examined the relationship between economic growth and short-term (non-life) insurance development in Zimbabwe. The study was promoted by the low insurance penetration in Zimbabwe being experienced by insurance companies and the effect that it has on the economic growth. There was a need for insurance companies to change their underwriting to lower the cost of premiums and have flexibility modes of premium payments to attract customers. The target population were 18 short-term insurance companies located in Harare. Sampling techniques used were convenience sampling and purposive sampling. A mixed research approach was adopted combining both quantitative and qualitative data. The researcher employed a survey design in which data was collected by way of questionnaires and secondary data was made available by the Insurance Pensions and Commission. Data was represented in the form of pie charts, line graphs and bar graphs. A simple regression analysis was conducted so as to test the relationship among variables. The ANOVA test was also conducted to demonstrate the significance of economic growth (as measured by the nominal GDP) on expenditure on insurance. The results show that there was limited knowledge on the insurance products. The study recommends that insurers build trust through innovative approaches, including literacy campaigns and plots on TV and radio programmes, to explain the benefits of insurance. Alongside developing market education other incentives, such as tax exemption, subsidies, and even compulsory cover, will be required to generate demand.

Contents

APPROVAL FORM	i
DECLARATION	i
RELEASE FORM	ii
DEDICATION	1
ACKNOWLEDGEMENTS	2
ABSTRACT	3
List of Tables	8
List of Figures	9
LIST OF ABBREVIATIONS	10
CHAPTER 1	11
1.1 Background to the study	11
1.2 Statement of the problem	4
1.3 Research Objectives	5
1.3.1 Research Questions	5
1.4 Significance of the Study	5
1.4.1 To the Student	5
1.4.2 To the Insurance Industry	6
1.4.3 To the Insurance Institute of Zimbabwe	6
1.5 Scope of the Study	6
1.6 Limitations of the Study	6
1.7 Organisation of the Study	6
CHAPTER TWO	8
LITERATURE REVIEW	8
2.1 Introduction	8
2.2 The Insurance Market	9
2.2.1 Definition of Insurance	9
2.2.2 Insurance Types	9
2.2.3 Benefits of insurance	10
2.3 Insurance Development and Economic Growth	11
2.4 Supply and demand of insurance	12
2.4.1 Insurance supply	12
2.4.2 Insurance demand	12

2.5	The Insurance Industry	12
2.5.1	World Insurance Industry	12
2.5.2	Insurance in Africa	14
2.5.3	The Insurance Industry in Zimbabwe	14
2.6	Economic Growth	16
2.7	Measuring the Economic Significance of Insurance Markets	17
2.7.1	Insurance Density	17
2.7.2	Insurance Penetration Ratio	17
2.7.3	Global insurance penetration rates	17
2.7.4	Insurance penetration rates in Africa	18
2.7.5	Insurance penetration rate in Zimbabwe	21
2.7.6	Financial Development	23
2.8	Conditions that Affect the Relationship between Insurance Development and Economic Growth	24
2.8.1	Financial development	24
2.8.2	Savings rate	24
2.8.3	Interest rate	24
2.8.4	Income	25
2.8.5	Region	26
2.9	Models on Financial Development and Economic Growth	26
2.9.1	Informational Asymmetry Models	26
2.9.2	Financial Intermediation Theory	27
2.9.3	Development Hypothesis Theory and Financial Repression Theory	27
2.10	Review of Empirical Studies	27
2.10.1	Review of Empirical Studies in Africa	32
2.11	Conclusion	37
CHAPTER THREE		38
METHODOLOGY		38
3.1	Introduction	38
3.2	Research Design	38
3.3	Population and Sample	39
3.3.1	Target population	39
3.4	Sample and Sampling Methods	39

3.4.1 Sample size determination	39
3.5 Data and Data collection tools	40
3.5.1 Surveys	40
3.5.2 Questionnaires	40
3.6 Variables in the study	41
3.6.1 Dependent variable	42
3.6.2 Independent variable	42
3.7 Validity and Reliability of Data Collection Instruments	42
3.8 Data Presentation and Analysis	42
3.9 Research Ethics	42
3.10 Conclusion	43
CHAPTER FOUR.....	44
DATA PRESENTATION AND ANALYSIS.....	44
4.1 Introduction	44
4.2 Data Analysis.....	44
4.3 Survey Responses.....	44
4.4 Reliability Tests.....	45
4.5 Qualitative Data Analysis	46
4.6 Types of short-term insurance products in demand:	46
4.7 Income Level	47
4.8 Major Causes of growth in premiums since 2009 (post-dollarisation)	48
4.9 The extent to which growth in GDP is in line with GWP growth	48
4.10 Relationship between growth in gross written premium and GDP growth	49
4.11 Demographic Information	49
4.11.1 Economic and Insurance Indicators.....	49
4.12 Empirical Results.....	52
4.13 Correlation Analysis between GDP and GWP, Insurance Penetration Rate and Insurance Density	53
4.13.1 Regression Analysis	53
4.14 Tests for relationships between variables	55
4.15 Hypothesis Testing.....	56
4.16 Conclusion	56
CHAPTER 5.....	57

CONCLUSION AND RECOMMENDATIONS	57
5.1 Introduction	57
5.2 Conclusions	57
5.3 Recommendations	59
5.3.1 Marketing Strategies	59
5.3.2 Innovation	59
5.3.3 Partnerships with key stakeholders	60
5.3.4 Growth initiatives	60
5.3.5 Regulation	61
5.5 Future Research	62
REFERENCES	63
APPENDIX A: Letter of request	70
Appendix B- QUESTIONNAIRE.....	71

List of Tables

Table 1: Depth of Insurance Markets by Region.	19
Table 2: below shows the statistics relating to non-life insurance penetration and density in Zimbabwe since 2012.	22
Table 3 Summary of Literature Review.....	35
Table 4 Variable identification for the study	41
Table 5: Response rate	45
Table 6: Reliability Statistics	46
Table 7: Amounts spent annually on short term insurance services	47
Table 8: Economic and Insurance Indicators: Source: Zimstat and IPEC Short Term Insurance Reports	50
Table 9: Descriptive statistics of variables	53
Table 10: One-Way Analysis of Variance	55
Table 11: Pearson’s Correlation of Income	55

List of Figures

Figure 1 Trends in GWP Growth 2015 to 2019.....	2
Figure 2 Growth Trends for Motor and fire classes, 2015-2019	3
Figure 3 Different kinds of insurance to cover different circumstances.....	10
Figure 4 Distribution of gross premium.....	13
Figure 5 below shows the trend in business from 2015 to 2019:.....	15
Figure 6 Breakdown of non-life insurance premium per class of business in 2017:	16
Figure 7 Life and non-life insurance penetration for selected African countries:	20
Figure 8 The relationship between gross national income (GNI) per capita and the penetration of non-life insurance:	25
Figure 9 Types of insurance products bought.....	46
Figure 10 Income levels of respondents 1	48
Figure 11 Cross-tabulation of Income against Expenditure	48
Figure 12 Extent to which GDP growth is in line with GWP growth.	49
Figure 13 Comparative trends of GDP and Insurance Penetration Ratio	51
Figure 14 Comparative trends of GDP and Insurance Density.....	51
Figure 15 Comparative trends of GDP and Gross Written Premium	52
Figure 16 Correlation between GDP and GWP	54
Figure 17 Correlation between GDP and Insurance Penetration Ratio	54
Figure 18 Correlation between GDP and Insurance Density	54

LIST OF ABBREVIATIONS

IPEC	Insurance and Pensions Commission
GWP	Gross Written Premium
NGO	Non-Governmental Organisation
GDP	Gross Domestic Product
GNI	Gross National Income
PI:	Insurance Penetration Rate

CHAPTER 1

1.1 Background to the study

There is growing empirical literature that confirms that countries are much more likely to experience sustained growth if their insurance markets develop well and that the insurance function plays a critical role in supporting and sustaining inclusive growth literature review in Lester, 2014. The consensus is that insurance is a strong predictor of economic growth across countries at different stages of development (Webb, 2012). The importance of the insurance-growth nexus is growing due to the increasing share of the insurance sector in the aggregate financial sector in almost every emerging and mature market economy with the total assets of insurance companies amounting to USD 32.9 trillion in 2018.

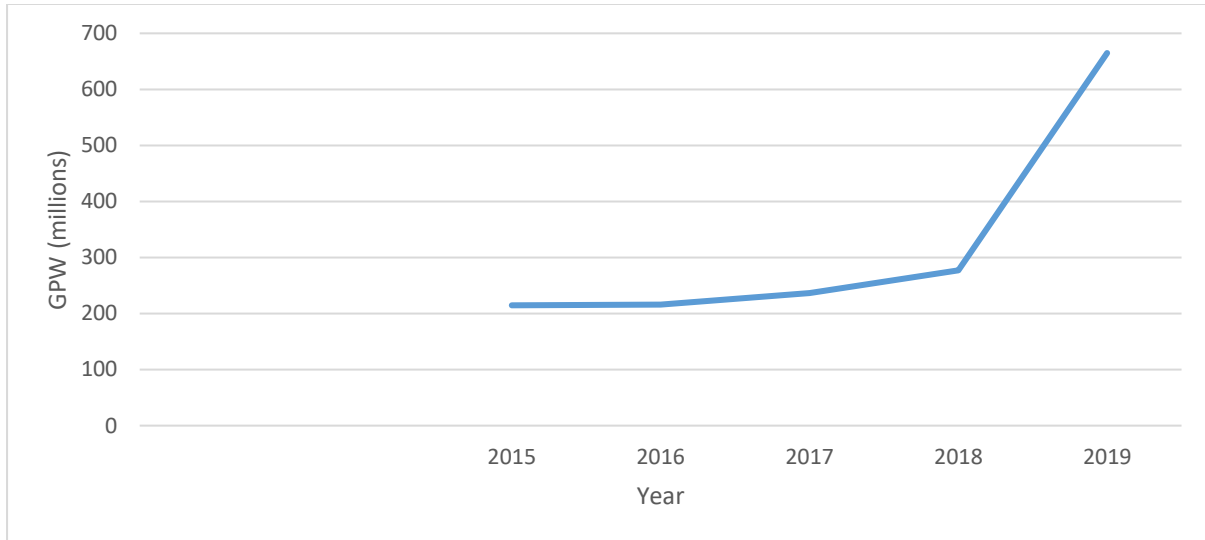
Insurance companies, together with mutual and pension funds, are one of the biggest institutional investors in the stock, bond, and real estate markets. The growing investment activities also emphasize the possible importance of insurance companies as an institutional investor in economic growth (Catalan et al. 2000; Rule 2001).

The development of the insurance market is playing an increasingly substantial role within the insurance industry. The importance of the insurance-growth relationship is growing due to the increasing share of the insurance sector in the financial sector. This greater importance is also reflected in the business volume of insurers (Beck and Webb, 2003).

The Zimbabwean economy has been on a recovery path after years of negative growth during the hyperinflation period between 2000 and 2009 when the national economy shrunk by as much as 40% with GDP growth at a negative 16.3% in 2008. Following the adoption of the multi-currency system in February 2009, the nominal GDP increased from \$12.5 million in 2012 to \$17.49 billion in 2016. The insurance market has also been growing steadily since 2009 in line with the economic growth with premium levels in the non-life sector rising by 841.25% from US\$76.66 million in 2009 to US\$644.90 million as at 31 December 2019(IPEC (Non-Life) Report, 2019).

The volume of business was generally on an upward trend from 2009 before leveling off between 2015 to 2017 with 2018 and 2019 seeing a sharp increase as shown in the figure below:

Figure 1 Trends in GWP Growth 2015 to 2019



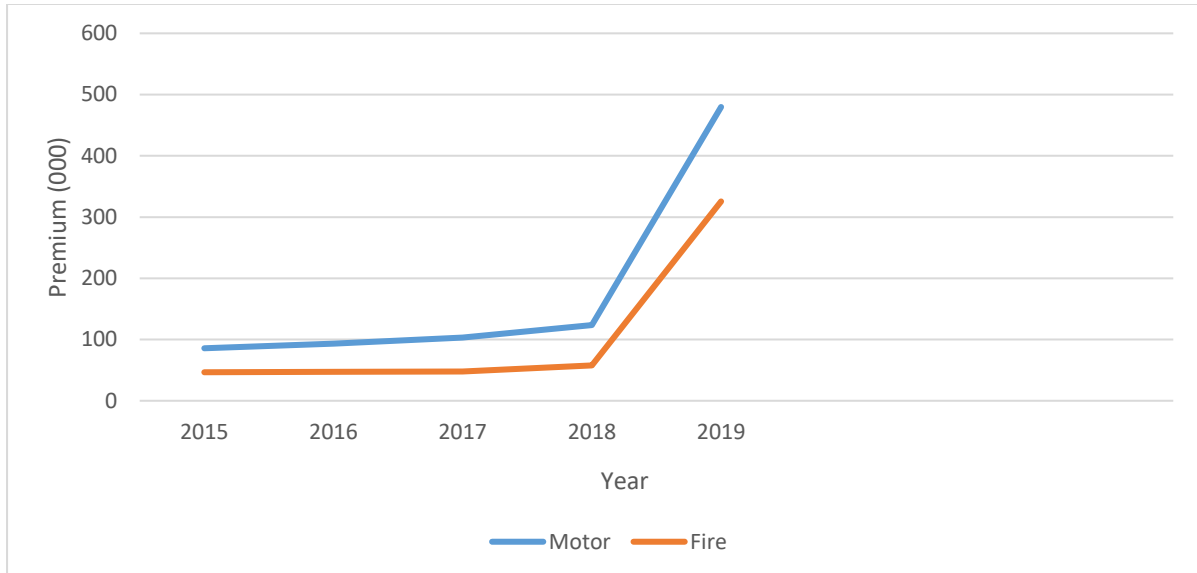
Source: IPEC Report (2019)

Premium levels are expected to grow in 2020 (Business Monitor International: Zimbabwe Insurance Report Q2, 2020) although this is highly unlikely given the depressed economic environment. The challenges being faced by the wider economy, including deflation, recession, foreign currency shortages as well as associated speculative consumer and asset pricing tendencies, have had negative knock-on effects on the insurance sector.

However, the positive economic growth has not translated into increased demand for insurance products with Motor and Fire insurance perennially being the dominant classes of business with 34.89% and 23.67% share of the total gross premium as at 31 December 2019 respectively (IPEC Report, 2019). The demand for alternative insurance products, for example, Bonds/Guarantees and Farming insurance, has remained low in Zimbabwe with the dominant class of business being Motor where insurance is compulsory for certain covers like Third Party insurance. Total gross premium generated from Motor insurance increased by 559.55% from \$85,74 million in 2015 to \$479,73 million in 2019, an increase which is partly explained by the economic growth in the economy which has seen a natural growth in vehicle population and technological interventions, that is, the introduction of electric cover notes which meant that most motor vehicles previously insured using fake cover notes are now insured with

genuine electronic cover notes (IPEC Report, 2019). Fire insurance demand has also been high especially for commercial insurance as businesses are being compelled to take out insurance by banks and other financial institutions after taking out loans to fund operations.

Figure 2 Growth Trends for Motor and fire classes, 2015-2019



Source: IPEC Report (2015-2019)

This means most of the growth witnessed by short term insurance companies in recent years has mainly been organic growth with existing clients increasing their current covers with minimal growth coming from new customers or other product lines.

According to Cole, Sampson and Zia (2010), the determinants of the demand for financial services are much less understood, especially in the emerging markets. International researchers have gone some way in providing useful information on the patterns for international demand for insurance. However, several territories have been left unexplored. A lot of studies, such as the ones by Outreville (1996), Park, Borde & Choi (2002), Beck & Webb (2003), and Chui & Kwok (2008) relate mainly to demand for life insurance, and predominantly in the developed world. A large body of previous research either only examines the factors influencing the demand for life insurance or focuses on the relationship between the insurance market and economic growth. Very little has been studied on the demand for non-life insurance services in less developed economies. One study by Browne, Chung & Frees (2000) exists on the automobile and general liability insurance demand, focusing on developed nations for the period between 1987-1993. This study, therefore, seeks to understand the factors driving the demand for non-life insurance in an emerging market, and Zimbabwe in particular.

This study will examine the influence of macroeconomic, demographic, and institutional drivers to explain the behaviours of consumers of insurance services.

The insurance penetration ratio in Zimbabwe is currently claimed to be 1.52% and is below the average for the African continent, which is 3.56% (IPEC Report, 2017). The adverse effects from the hyper-inflation period (2000 to 2009) and the challenges brought about by the dollarization of the economy has had a negative impact on the behavioural patterns of consumers of financial services in Zimbabwe, insurance included.

1.2 Statement of the problem

Despite the important role that the insurance sector may play for the financial and economic development of a country there's reasonable evidence that the sector has promoted economic growth, there have been few studies examining the factors that drive the development of the sector. Especially for the non-life insurance market, Feyen, Lester and Rocha (2011) concluded that the sector appears much less researched than the life insurance market.

The non-life industry in Zimbabwe has seen an increase in the gross written premium over the years, from \$214,71 million in 2015 to \$644.90 in 2019 representing a significant growth (IPEC Report, 2015 and 2019). Despite this growth in premiums insurance demand has not improved with the majority of the population remaining uninsured as indicated by the penetration ratio which has remained constant at 1.52% (IPEC Report, 2016). Certain insurance products that are relevant to the populace, especially home and agriculture insurance have largely been ignored as seen by their low demand despite the devastating effects the loss of one's property, crop or livestock would cause (IPEC Report, 2019). Whereas access to financial services is an important means of reducing poverty (Donou-Adonsou and Sylwester, 2016), especially when combined with other supports for poor households, access to insurance products has failed to take off in most segments of the Zimbabwean population, reaching only a small segment of the potential market as indicated by the penetration levels.

It is therefore the researcher's conviction that studies must be undertaken to understand the relationship between economic growth and the development of the non-life sector, otherwise, the anticipated growth of this sector will remain a pipe dream. The continued underdevelopment of the non-life insurance will curtail the growth of the economy in general.

1.3 Research Objectives

- The primary objective is to establish the relationship between non-life insurance development and economic growth in Zimbabwe and hence to fill a gap in the current insurance-growth nexus literature.
- To measure the development of non-life insurance in Zimbabwe.
- To identify challenges being faced by short term insurers in accessing the uninsured segments of the economy.
- Analysis of variables that may enhance the growth of the non-life insurance sector.
- To examine the impact of non-life insurance development on economic growth using non-life insurance penetration as a measure of insurance development.

1.3.1 Research Questions

- What is the extent of the relationship between economic growth and non-life insurance market development in Zimbabwe?
- What are the main drivers behind the demand for non-life insurance products in the country?
- What variables affect the development of the non-life insurance market in Zimbabwe?
- What other variables could form a nexus between economic growth and development of the non-life insurance market in Zimbabwe.
- What can be done to minimize the challenges being faced by short term insurers in accessing the uninsured segments of the economy?

1.4 Significance of the Study

The benefits of this study will be of benefit to the society considering that the Insurance sector plays a vital role in the growth of the economy. The paper of Yinusa and Akinlo (2013) highlighted that insurance development integrates with economic performance, the greater the demand for insurance the greater the increase in the country's GDP growth rate.

1.4.1 To the Student

The student will be well equipped with deep knowledge of the subject under study and have a more sharpened understanding of the Insurance Industry. In addition, it is a partial fulfilment of the requirements of The Insurance Fellow.

1.4.2 To the Insurance Industry

The Insurance Industry will have in-depth knowledge about the relationship between economic growth and insurance development from the findings of this study and have recommendations to the different players in the insurance sector.

1.4.3 To the Insurance Institute of Zimbabwe

To the Insurance Institute of Zimbabwe, the report will be deposited in the institute's library for use by other academics and scholars and to add to the body of knowledge.

1.5 Scope of the Study

This research will be focused mainly on the non-life insurance sector with 18 operational insurance companies, 8 reinsurance companies, and 32 insurance brokers. The study will be looking at the companies' head offices or main branches which are based in Harare. The study will also be looking at the statistics on the performance of each class of non-life business since the dollarization era in 2009.

1.6 Limitations of the Study

Finance

- Shortage of financial resources for the researcher to be able to gather information will be a limiting factor.

Time

- There will be limited time since the researcher will be going to work and have work related deadlines.

1.7 Organisation of the Study

Chapter One-Introduction: contains the introduction and shows the background of the problem, research objectives, research questions, and justification of the study, scope of the study and limitations thereof.

Chapter Two-Literature Review: explains both theoretical and empirical evidence of the study. It gives different opinions from different authors pertaining to the subject in the question. The chapter gives an in-depth analysis of the benefits and risks associated with blockchain technology as well as the factors affecting underwriting efficiency. Empirical evidence relating to the study is also given.

Chapter Three-Research Methodology: give details of the research design that was used in the study to obtain all the results from the study. This chapter shows in detail the tools that were used for gathering all the necessary data for the research, how it was conducted and how the gathered data would be presented for analysis.

Chapter Five- Data Presentation and Analysis: Presents all the data that was gathered in the second chapter in form of tables, charts and graphs for analysis purposes.

Chapter Five: Summary of Findings, Conclusions and Recommendations; This chapter concludes the findings obtained from the research study and draws useful conclusions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

An analysis of the relationship between economic growth and non-life insurance development in Zimbabwe.

This chapter focuses on the review of literature by various authors who have researched the relationship between insurance development and economic growth. A literature review is an exhaustive summary and basic investigation of the applicable and non-applicable information and non-research writing on the subject being studied (Hart, 1998). It is an account of what has already been published on a research topic by accredited authors and its main purpose is to identify gaps in knowledge, as well as help, determine the credibility and feasibility of the research by putting it in a broad framework justifying further research. This literature review was done after researching wide sources, mainly the internet, journals, books, and dissertation studies.

The assessment of a potential causal relationship between insurance market activity and economic growth has not been extensively studied. Exceptions are the work of Ward and Zurbruegg (2000), Webb *et al.* (2002), Kugler and Ofoghi (2006), and Adams, Andersson, and Lindmark (2006).

It has been stated in previous studies that the insurance sector, which is an important element of the financial system, causes a positive impact on economic growth by developing financial stability, facilitating trade, organizing savings, encouraging the accumulation of capital by managing different risks, and reducing costs of potential economic losses. But it is expressed that these effects of the insurance industry differ in terms of life insurance and non-life insurance premiums. Accordingly, it has been pointed out that life insurance helps finance long-term investments rather than short-term ones (Arena, 2008 and Skipper, 1997).

2.2 The Insurance Market

2.2.1 Definition of Insurance

Insurance can be described as a means of protection from financial loss. It is a form of risk management primarily used to hedge against the risk of a contingent, uncertain loss. The insurance industry safeguards the assets of its policyholders by transferring risk from an individual or business to an insurance company. Insurance companies act as financial intermediaries in that they invest the premiums they collect for providing this service. The importance of insurance is growing due to the increasing share of the insurance sector in the aggregate financial sector in almost every developing country (Denenberg, 1963).

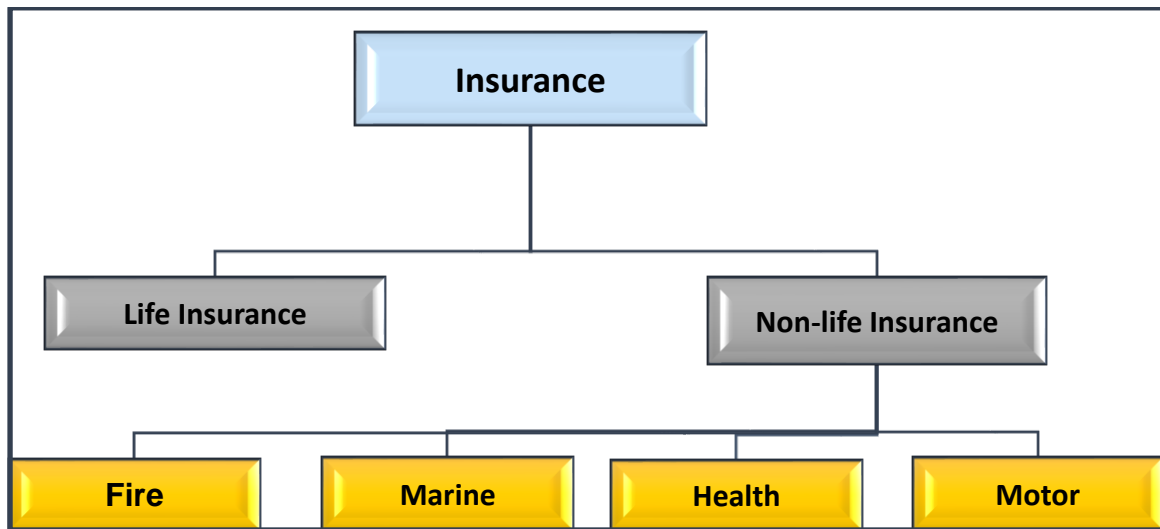
2.2.2 Insurance Types

There are three main insurance sectors, that is, property/casualty, life/health, and health insurance. Property/casualty consists mainly of auto, home, and commercial insurance. Life/health consists mainly of life insurance and annuity products. Health insurance is offered by private health insurance companies and some Life/Health and Property/Casualty insurers, as well as by government programs (Insurance Information Institute, 2010).

In Zimbabwe, there are two main kinds of insurance to cover different circumstances. Life insurance is a contract between the policy owner and the insurer, where the insurer agrees to reimburse the occurrence of the insured individual's death or other events such as terminal illness. Non-life insurance covers anything other than human life. It is also referred to as general insurance or property and casualty insurance. Examples are insurance for property are buildings, stock, plant, and machinery, vehicles, ships, and aviation. These can be insured against fire, lightning, theft, accidental damage, injury due to accidents, hospitalization for illnesses, and legal liabilities to others.

There are different kinds of insurance to cover different circumstances as detailed in Figure 2.1 below:

Figure 3 Different kinds of insurance to cover different circumstances.



2.2.3 Benefits of insurance

The core purpose of the insurance industry is to enable economic growth, the taking of risk, and innovation (CII Journal, 2016). Insurance offers not only freedom from the financial and emotional burden of loss but also the freedom to pursue innovation, investment, and creation of value. The industry is a strategic partner in protecting the value and encouraging opportunities for growth.

The insurance industry forms an integral part of the global financial market, with insurance companies being significant investors. In recent decades, the insurance sector, like other financial services, has grown in economic importance. This growth can be attributed to a number of factors including, rising income and demand for insurance, rising insurance sector employment, and increasing intermediary services for policyholders (Ward and Zurbruegg, 2002).

Specific evidence for the role of insurance market development in economic growth is provided by Outreville (1990), Ward and Zurbruegg (2002). These studies suggest that the insurance industry through risk transfer, financial intermediation, and employment can generate positive externalities and economic growth.

The insurance system bolsters the economy by reinvesting the collected premiums into businesses and ventures, which in turn invest in the economy through the purchase of materials and services in order to maintain their businesses. Arena (2008), Haiss and Sumegi (2008), and Ćurak, Lončar and Poposki (2009) found evidence of a causal relationship of insurance market development on economic growth. International traders are exposed to a significant number of risks, many of them being beyond the control of enterprises but covered through insurance (Chau and Khin, 2013).

2.3 Insurance Development and Economic Growth

Insurance development is part of financial development. It can be said that insurance development is a collection of terms (Merton and Bodie, 2009). It can be said to be a long-term process of growth and improvement of the insurance market, institutions, and instruments (qualitative changes), oriented to increase the effectiveness of their operations and increase the volume of insurance transactions (Kulawik, 1998). In practice, insurance development should occur through an increase in the number of insurance products, an improvement in their availability, and an increase in insurance premiums obtained by insurers.

Despite the prominence of financial and insurance development in discussions on economic growth, there is still surprisingly little agreement on how to measure this development. Financial development is generally identified with the growth of the real size of the financial sector and in relation to GDP, that is financial deepening. A fast growing literature has found a clear link between financial development and growth countries to better functioning financial institutions and markets grow faster. King and Levine (1993) reported that financial development proxied by several measures of financial deepness predicted long run economic growth and capital accumulation.

The role of the financial sector in economic growth has become a major topic of empirical research in the last two decades, and the work of King and Levine (1990) has been greatly elaborated. On the basis of empirical studies (using data on 80 countries over the 1960 to 1989 period) King and Levine (1990) found an important link between financial development and long-run growth. Further evidence in this direction has been provided by the work of Wachtel and Rousseau (2000) who confirmed the relationship which exists between financial development and economic growth.

2.4 Supply and demand of insurance

2.4.1 Insurance supply

Insurance companies need capital, that is, money available to run the business. Sources of capital deliver the investment that provides the capacity for an insurance business. Insurance is a risk business that is attractive to some investors as a business that doubles as an investment; with the lag between receipt of premium and payment of claims opening a period for investing premium received.

Insurance companies vary in their capacity as market conditions change. Product pricing practices are not independent of market conditions and expected demand. Intelligence and research is a key part of the pricing strategy to maximize expected profits by adapting capacity to market conditions. Insurance companies with multi-line products adopt specific capacity changes for each business segment. Integrating anticipations of future market condition helps maximize the return on a limited insurance capacity by ensuring that it is sold at the best rates (Chartered Insurance Institute, 2012).

2.4.2 Insurance demand

Sometimes demand may fluctuate, with peaks at time, these are called seasonal variations. Others may suffer from unanticipated fluctuations due to events that could not be predicted, for example, an insurance broker may have regular renewals and new customers taking out policies at a fairly even rate but with a slight downward trend in demand as more and more people buy over the internet. Collapse of an online insurance company may suddenly create a surge of new business (Institute of Leadership Management,2013).

Demand also depends on competitive forces in the marketplace, for example, a new insurance company entering the market. General customer satisfaction regarding insurance products and sometimes seasonal or economic fluctuations can also be important factors, for example, overseas holiday travel insurance in times of recession, or a domestic heatwave (Chartered Insurance Institute, 2012).

2.5 The Insurance Industry

2.5.1 World Insurance Industry

International insurance markets are characterized by a high degree of heterogeneity, as a result of the diversity of events that cause the damage, and of the activities that may affect them. Each insurance market is characterized by the preponderance of certain categories of insurance, the

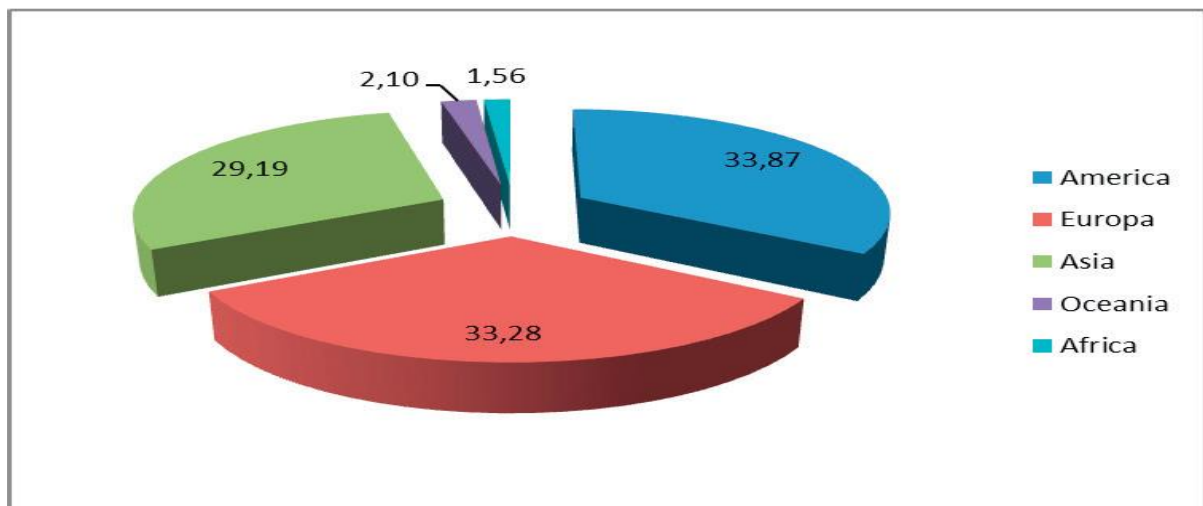
existence of certain insurance and reinsurance intermediaries, norms and specific rules, larger coverage, or more extended exclusions.

The insurance market witnessed a tremendous growth between the year 2000 and 2008 with the world premium in US dollars increasing by 175%, significantly outpacing worldwide economic growth (Outreville, 2011). The world's insurance industry is dominated by wealthy developed countries. In fact, the Group of Seven (G7) alone accounts for almost 65% of the world's insurance premiums even though it covers just over 10% of the world's population. In those seven countries, an average of US\$3,910 was spent on insurance premiums per capita in 2012, according to Swiss Re. In comparison, people in emerging markets spent an average of US\$120 (KPMG Sector Report, 2014).

The last two decades have seen accelerated growth of all insurance markets (world premiums in US dollars increased by 175% between 2000 and 2008) and although the financial crisis and economic recession in 2009 had a negative impact on insurance premium growth, the share of emerging and developing economies continued to increase (9.3 % of total business in 2000 and 12.0% in 2008)

Figure 4 below show shows the distribution of gross premiums across the world in 2014:

Figure 4 Distribution of gross premium



Source: Processing of Sigma magazine, No. 3/2015

At the end of the year 2014, the insurance market was dominated by a few economically developed areas, such as Western Europe, with almost 32 %; North America with a market share of approximately 30% of the entire insurance world market; Japan with the newly industrialized countries (Hong Kong, Singapore, South Korea, Taiwan, Israel) 20% market share, holding together 82% of the insurance world market (Cristea et al., 2014).

2.5.2 Insurance in Africa

Most African countries lag from the rest of the world in terms of insurance. Apart from South Africa, Namibia and Mauritius, all countries have low penetration ratios (KPMG Sector Report, 2012). The African insurance market is relatively concentrated, with premiums from South Africa, Morocco, Egypt, Nigeria, Algeria, and Kenya representing 89.2% of total non-life and life premiums on the continent in 2011 (Best, 2013).

South Africa is by far the largest insurance market in the region, with a total premium of USD 51.6 billion in 2017 (SwissRe, 2017). An insurance market's maturity can be gauged by examining proxies, including the size of the life sector, the balance in terms of lines of business, and the extent to which motor dominates the non-life sector. South Africa stands out at 79.3% of its total insurance premium originates from life risks (Best, 2013). The strong demand for life business results in total insurance premiums in South Africa representing 12.9% of gross domestic product (GDP) well exceeding insurance penetration in some European countries. Kenya and Morocco have the next highest levels of insurance penetration on the continent (3.2% and 2.9% respectively), which is comparable to markets such as Brazil and China. The rest of Africa has a very low demand for insurance. In particular, Nigeria and Egypt are considered underinsured, given their large populations of 165 million and 82 million.

According to Swiss Re (2017), the total value of Africa's insurance premiums was just shy of USD70 billion in 2013, down 2% from the USD71.35 billion in 2012. This means that Africa's share in the global market is approximately 1.5%. South Africa accumulated nearly 74% (USD51 billion) of all Africa premiums, with other 53 countries contributing USD18.3 billion which is only 0.4% of the global insurance market.

2.5.3 The Insurance Industry in Zimbabwe

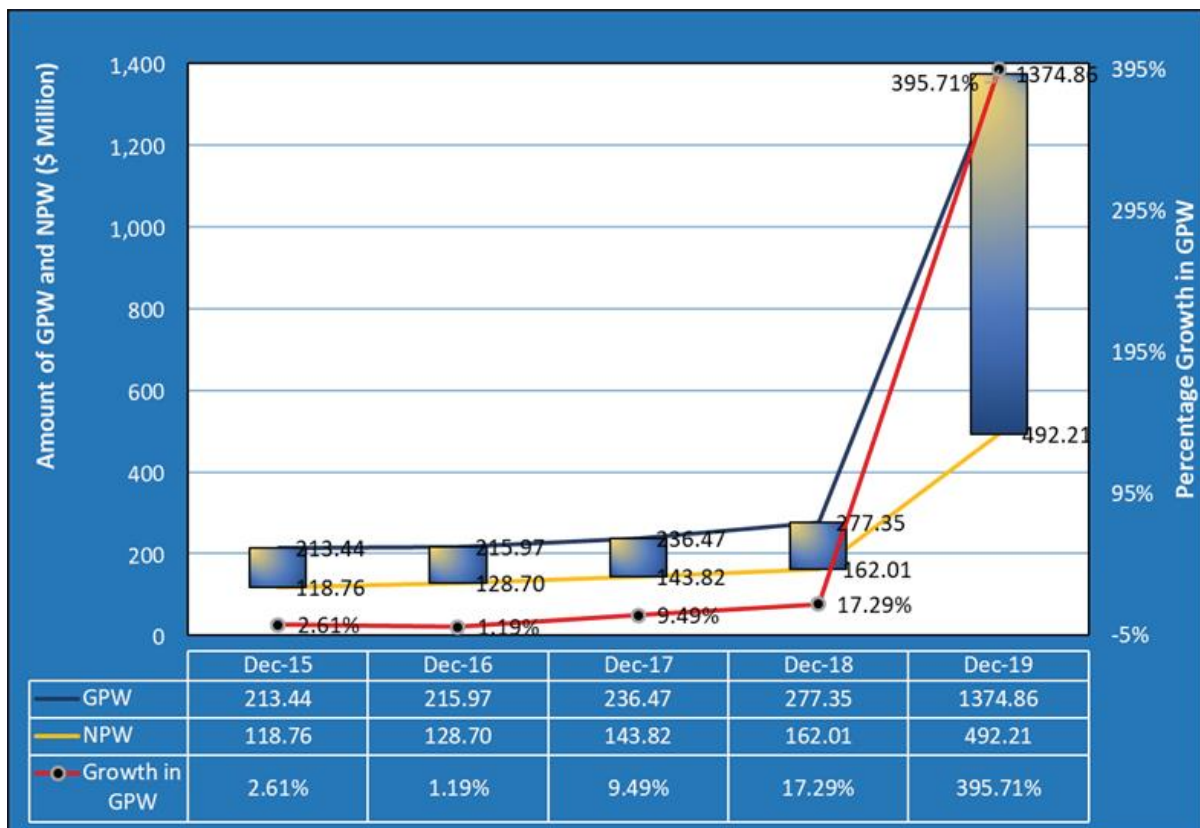
The insurance sector in Zimbabwe is highly developed and fairly diversified in comparison to most markets in the Sub-Saharan African region, with some of the best-known broking houses

in the region represented (Ministry of Finance, 2010). The sector comprises 18 non-life insurance companies, 8 reinsurance companies, and 32 insurance broking companies. The industry offers a diverse range of non-life insurance products (IPEC Report, 2017).

Similar to many other sub-Saharan markets, Zimbabwe’s non-life segment is dominated by motor insurance, accounting for 34.89% of written premiums in 2019. From a competitive point of view, the non-life segment is relatively healthier than the life segment, as it is substantially more fragmented with four insurers boasting market shares in excess of 10% and none above 14%. The competition that is present ensures that prices are kept low, which, coupled with high ceding ratios, is unfavourable for the profitability of the market players (BMI: Zimbabwe Insurance Report, 2015).

The non-life insurance industry in Zimbabwe has grown rapidly in recent years, with gross premiums up from USD 214,74 million in 2015 to USD 1,374.87 billion in 2019 (IPEC Report, 2019) signifying a 495.71% growth.

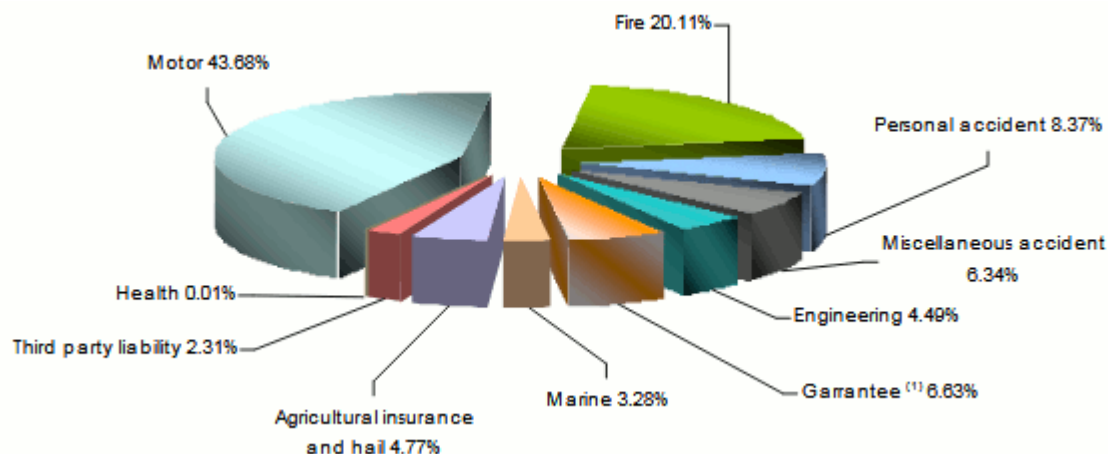
Figure 5 below shows the trend in business from 2015 to 2019:



Source: IPEC Report (2019)

The figure below shows the distribution of total gross premium written by non-life insurers for 2019 across different business classes.

Figure 6 Breakdown of non-life insurance premium per class of business in 2017:



Source: Atlas Magazine-Insurance News Around the World (2016-2017)

In terms of business distribution, motor and fire insurance remained the key drivers, as the two classes accounted for 63.79% of the total gross premium written in 2019. Fire and motor insurance have remained the major sources of business for the non-life sector over the years. Similar to many other sub-Saharan markets, Zimbabwe’s non-life segment is dominated by motor insurance, accounting for 34.89% of written premiums in 2019.

Despite being an agro-based economy, the uptake of insurance services in the agricultural sector is generally low as compared to other sectors of the economy like manufacturing, mining, and services sectors. According to Tsikirayi *et al* (2012), farmers in Zimbabwe tend to view insurance as an unnecessary expense rather than an investment to curtail future risk, especially given the small size of their holdings. Whether such a view is based on economic rationale or mere opinions, is still a subject of debate in academia.

2.6 Economic Growth

Hardwick *et al.* (2002) define economic growth as an increase in a country's productive capacity, identifiable by a sustained rise in real national income over years. A country's annual rate of economic growth, then, can best be measured by taking the average percentage increase

in national income over a long period of time, say five or ten years. The figure obtained will be an estimate of the average annual rate of growth in the country's productive capacity, assuming that the rate of unemployment is roughly the same at the beginning and end of the period. Growth may be stimulated by an increase in the quantity or quality of the factors of production, such as labor and capital. Economic growth results in a number of benefits, such as an increased standard of living and a reduction in poverty levels. Perez de la Fuente (2016) pointed out that economic growth has proven to be a powerful force in the fight against poverty across the world, especially since 2000. On the other hand, growth may lead to costs, such as technological unemployment, rapid depletion of non-renewable resources, and negative externalities.

2.7 Measuring the Economic Significance of Insurance Markets

Two measures are used traditionally to show the relative importance of insurance within national economies, namely insurance density and insurance penetration ratio.

2.7.1 Insurance Density

Insurance density indicates the average annual per capita premium within a country expressed in US dollars. It indicates how much each inhabitant of the country spends on average on insurance. Premiums per capita can be converted using Purchasing Power Parity (PPP) values rather than US dollar exchange rates. The PPP correction can be significant.

2.7.2 Insurance Penetration Ratio

A measure of the development of an insurance sector is insurance penetration, defined as gross premium income (GPI) as a percentage of a country's gross domestic product (GDP). According to Mahul *et al* (2009), insurance penetration rate is expressed as the ratio between insurance premium volume and GDP; non- life insurance penetration is expressed as the ratio between non- life insurance premium volume and GDP. It shows the relative importance of the insurance sector within national economies and is not affected by currency fluctuations. However, it ignores the difference in product design, price levels, and other market characteristics.

2.7.3 Global insurance penetration rates

Over the past decade, overall insurance penetration in the advanced markets, defined as insurance premiums/GDP, has decreased, due to a contraction in the life insurance business. In

non-life, insurance penetration has remained fairly stable, as would be expected in saturated markets. Average per capita spending on insurance (density) in advanced markets was USD 3737 in 2018 and insurance penetration (Swiss Re, Sigma 3, 2019). In 2017, global non-life insurance premiums rose an estimated 3%, almost in line with the 2016 growth as the macroeconomic climate continued to improve. The GWP rose to US\$2.8 trillion in 2016 with the non-life sector at 2.8%.

The slow decline in auto insurance in most mature markets has been ongoing for a long time (Mckinsey and Company, 2014). In some mature markets, prices have been dropping due to fewer accidents and increased competition from direct channels. Swiss Re, (2015) states that as everything is now going digital, so do risks, hence the need to use digitalization to increase penetration. Many industry observers have held the view that other product lines such as liability or new risk coverages (such as cybersecurity or energy-related coverage) could compensate for this decline. This has unfortunately not been the case. Overall penetration in mature markets for personal and commercial lines has declined slightly in the last decade. Fire and property is the only line with a slight increase in penetration over the decade (Mckinsey and Company, 2014).

2.7.4 Insurance penetration rates in Africa

With investment in Africa proliferating across countless markets, the insurance sector is no different. The latest figures from Swiss Re indicates that while Africa's insurance penetration rate stood at 3.5% in 2013 the market recorded a growth rate of 10.2% vs 2.5% worldwide. According to Swiss Re, the total was just shy of US\$70 billion, down 2% from the US\$71.35 billion in 2012. This means that Africa's share in the global market is approximated 1.5%. South Africa accounted for nearly 74% (US\$51.6 billion) of all African premiums, with other 53 countries contributing only US\$18.3 billion which is only 0.4% of the global insurance market.

The insurance market in Africa is still underdeveloped as compared to the rest of the world as most Africans cannot afford insurance premiums yet. Africa has a very low insurance penetration rate and an even lower insurance density. When South Africa, with one of the largest 2014 insurance penetration rates in the world (14%) is excluded, the figures for Sub Saharan Africa become quasi-negligible (Swiss Re Sigma Report, 2015). Other Sub-Saharan

African countries have a penetration rate of around 1%, and only three countries, namely Kenya, Namibia, and Botswana, have rates at or above 3%.

Access to insurance products only starts to increase quickly in the upper-middle-income brackets. With most Africans still struggling to meet their basic food and other day-to-day needs, insurance is still a long way off for the majority of Africans (Swiss Re, 2015). Even in South Africa, which has a well-developed insurance market, less than 30% of low-income adults have insurance (KPMG Report, 2015).

Apart from a lack of means, the other reasons for low insurance penetration in Africa according to KPMG Report 2015 include the following; people do not trust financial service providers. This is particularly true for Zimbabwe where the economy has experienced a number of bank and insurance company closures coupled with the erosion of pension savings during the hyperinflation period. Given how poor Africans are and how challenging the business environments are, there is not enough incentive for multinational companies to enter African markets and develop the sector. There is also a lack of reliable information making it difficult to assess people's creditworthiness.

Table 1: Depth of Insurance Markets by Region.

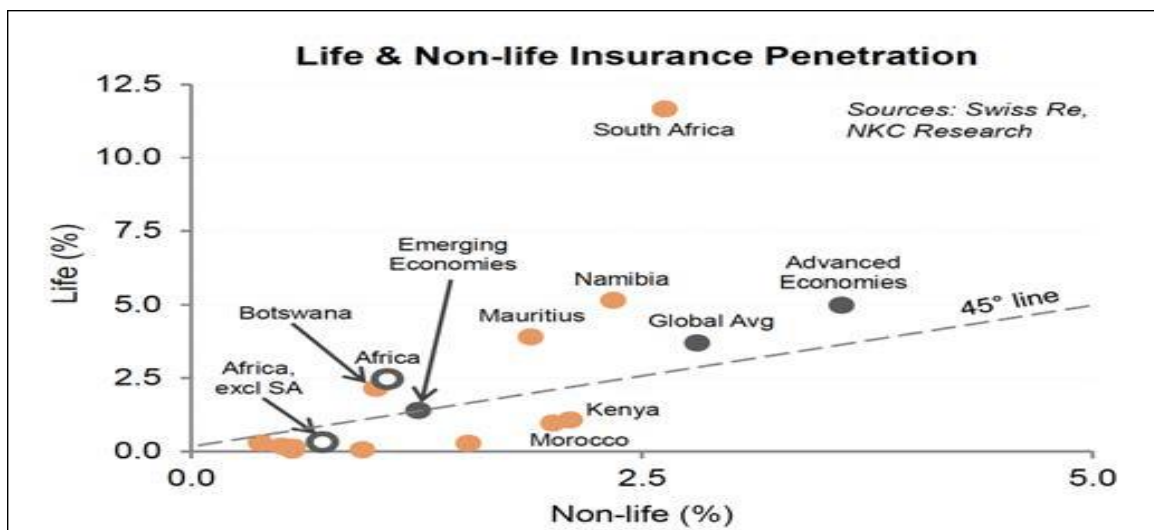
Depth of Insurance Markets by Region			
Region	Total Premiums (US\$ billion)	Penetration Rate (%)	Premiums per Capita (US\$)
Advance Asia	936.0	11.80	4,387.50
North America	1,393.4	8.03	3,996.3
Western Europe	1,462.7	7.72	2,716.3
Oceania	97.1	5.60	2,660.2
South & Central America	168.7	3.00	281.9
Central & Eastern Europe	72.5	2.01	223.4
Middle East	40.9	1.35	124.0
Emerging Asia	369.4	2.96	101.9
Africa	71.9	3.56	66.4
World	4,612.5	6.50	655.7

Source: Swiss Re, NKC Research (2012)

The insurance penetration ratio is often used as a measure of how deep a country's insurance market is. According to the reinsurer, Swiss Re's 2012 global insurance report, total premiums in Africa amounted to US\$71.9 billion in 2012, which translates into a penetration ratio of 3.56%. This was well below the global average of 6.5%, though it is above the average for emerging markets of 2.65%.

As shown in the table above, Africa performs better than some regions, including the Middle East, Central and Eastern Europe, and South and Central America. Still, it is notable that Africa's insurance density (the ratio of premiums per capita) is the lowest of any region in the world. On average, each African paid US\$66.4 in insurance premiums in 2012, roughly one-tenth of the global average.

Figure 7 Life and non-life insurance penetration for selected African countries:



Source: Swiss Re, NKC Research (2012)

The graph shows the penetration rates for life and non-life insurance in a selection of African countries and compares these with the averages for emerging and advanced economies, and the world. It shows that South Africa's life insurance market relative to its non-life insurance is unusually large. Non-life insurance has a penetration rate of 0.64%. On average, Africans outside of South Africa spent US\$12.50 on non-life insurance products in 2013. This is still much less than elsewhere in the world. In fact, according to a report by the World Bank, 17% of adults in developing economies have health insurance; however, only 3% of people in sub-Saharan Africa, the Middle East and North Africa region have health insurance. A slightly

higher share (6%) of people in Africa and the Middle East has agricultural insurance. This is however still extremely low given how susceptible farmers are to bad weather.

However, insurance penetration in Africa is growing, but from a very low base. Insurers are attempting to make insurance more accessible through micro-insurance and, to a lesser extent in certain countries, through Takaful product offerings that comply with Islamic Shari' a law. Insurers are exploring new distribution methods for personal lines, driven by the expanding use of mobile telephones.

2.7.5 Insurance penetration rate in Zimbabwe

The contribution of the non-life insurance industry to Zimbabwe's GDP remained constant at 1.52% for the year ended 31 December 2016 (IPEC Report, 2016). The average per capita spending on non-life insurance (non-life insurance density) decreased marginally from \$15.31 for the year ended 31 December 2015 to \$15.17 for the year ended 31 December 2016. However, the penetration ratio is below some African countries like Kenya with a penetration rate of 3.1% (Kamau, 2013) and also well below the average for Africa at 3.56%.

The nature of the insurance industry, income, cost of insurance, economic performance, political and demographic factors are factors that can explain the current low insurance penetration in Zimbabwe as they had a large negative contribution to the uptake of insurance services. During the 38th African Insurance Organization (AIO)'s general assembly and conference held in Zimbabwe in 2011, Mr. Tendai Biti, then Zimbabwe's Minister of Finance said that the Insurance industry in Africa has multiple problems which had contributed to a low level of penetration across the continent. The problems include a low level of awareness, inability to meet the changing and yearning needs of the insuring public, and high inflation in some countries like Zimbabwe.

In Zimbabwe, insurance penetration has also been adversely affected by such negative factors like the collapse of insurance companies, a trend that has persisted over time. In 2015 companies like Global Insurance Company, Heritage Insurance Company, KMFS Insurance, Excellence Insurance Company, and New Reinsurance Company were closed as they failed to meet the minimum capital requirements. There have been complaints of poor claims payment records and the industry has been affected by fraud emanating from the unprofessional conduct of players. There is a general lack of awareness of the benefits of insurance and a lot of people

only come to know about insurance when they buy a car and they are made aware that it cannot move on the roads without insurance. Distribution channels have remained traditional with few companies embracing technology to reach the untapped market.

For farming insurance, the low penetration of agricultural insurance products in Zimbabwe seems to validate earlier findings by Mahul and Stutley (2010) that the availability of agricultural insurance is particularly low in low-income countries and penetration is low, with the sector being under-serviced. It was further noted that the branch network of agricultural insurance providers is limited, with most of the branches located in Harare, the capital city, and in a few major towns (Tsikirayi, 2012). A survey on the analysis of the uptake of agricultural insurance services in 2012, of both farmers and insurers, revealed that the location of most insurers makes it difficult for farmers to access insurance service providers or vice versa. This has an overall effect of reducing the uptake of farming insurance policies. Furthermore, the study showed a general agreement among insurers that the economic downturn experienced from 2000 up to 2009 in Zimbabwe had negative effects on the insurance sector. This was aggravated by the direct shocks experienced by the agricultural sector from the Fast-Track Land Reform Programme in 2000.

Table 2: below shows the statistics relating to non-life insurance penetration and density in Zimbabwe since 2012.

	2012	2013	2014	2015	2016	2017
Gross Premium Written	\$189.92 million	\$207.69 million	\$208.02 million	\$214.71 million	\$215.97 million	\$236.47 million
GDP at Market Prices*	\$12.39 billion	\$13.49 billion	\$14.20 billion	\$14.17 billion	\$14.16 billion	\$16.65 Billion
Population *	13,061,269	13,368,620	13,652,297	13,943,242	14,240,000	14,575,000
Penetration Ratio	1.53%	1.54%	1.47%	1.52%	1.52%	1.42%
Insurance Density	\$14.54	\$15.54	\$15.24	\$15.40	\$15.17	\$16.22

Source: Ministry of Finance and Economic Development, (2017)

According to the insurance regulator, IPEC, Zimbabwe's insurance penetration rate is expected to grow by more than 15% in the next two to three years on the back of intensified efforts to increase financial inclusion by insurance companies (IPEC, 2019). The passing of the Micro Insurance Bill which allows new and small-to-medium players who cannot meet high capitalization requirements to participate in the sector, would be key to the growth of the penetration rate. However, this is debatable in light of the economic challenges and liquidity constraints being faced by the industry at the moment.

With few exceptions, the ratio of total premiums to Gross Domestic Product is much larger than 5% for the industrialized countries and smaller than 3% for the developing countries (Outreville, 2011). This ratio shows an impressive increase in almost all countries from 1970 to 2009. In the early 1990s, only a few countries had a ratio greater than 8. This may be seen as an indication of the growing importance of the insurance sector in national economies. The growth has been spectacular particularly in Asian countries, i.e. Japan, the Republic of Korea, and Taiwan. On the other hand, in some developing countries of South America and Africa, this ratio has remained low and reflects the economic situation experienced in these countries.

2.7.6 Financial Development

According to Claude and Varoudakis (1996) a number of recent studies have used endogenous growth theory to show the existence of a close association between level of the financial development and long run growth.

The measurement of financial development seems controversial because countries differ in their institutional environment and have different financial structures according to their development stage. The size of bank credit relative to GDP is another measure of the level of financial intermediation. The ratio of M2 to GDP captures the degree of monetization in the system but does not capture the degree of bank intermediation. The ratio of private credit to GDP does not control for the quality and efficiency of credit allocation. Another alternative is to link the size of the insurance sector to the level of development of the banking sector by considering the number of deposits (Beck and Webb 2003).

2.8 Conditions that Affect the Relationship between Insurance Development and Economic Growth

2.8.1 Financial development

Outreville (1996) examined the relationship between financial development and the development of the insurance sector. The empirical evidence revealed that the relationship between the development of the insurance market and financial development ($M2-M1/M2$) is significantly positive, but evidently negative in the case of another financial development variable ($M2/GDP$). Webb et al. (2002) investigated the relationship between banks, life, and non-life insurance activity on economic growth. However, Beck and Webb (2003) suggested that banking sector development facilitates the development of insurance and its contractual savings function. While an efficient banking system might help develop the insurance sector by dedicating payment services and raising confidence in financial institutions, insurance and other forms of contractual savings might foster the development of capital markets through the demand for long-term financial investment. As a result, one can ascertain that insurance is affected by financial markets and other financial products.

2.8.2 Savings rate

Beck and Webb (2003) mention that if the private savings rate were to rise, people might or might not be willing to increase their savings on insurance policies. In other words, the relationship between insurance and the private savings rate is ambiguous. The empirical evidence denotes that the share of insurance in savings will decrease with a higher savings rate, but will increase with further life insurance penetration. Anoruo and Ahmad (2002) illustrate that there is a long-term relationship between economic growth and the growth rate of savings. The results from the Granger-causality tests indicate that, contrary to the conventional wisdom, economic growth *prima facie* causes the growth rate of domestic savings to increase.

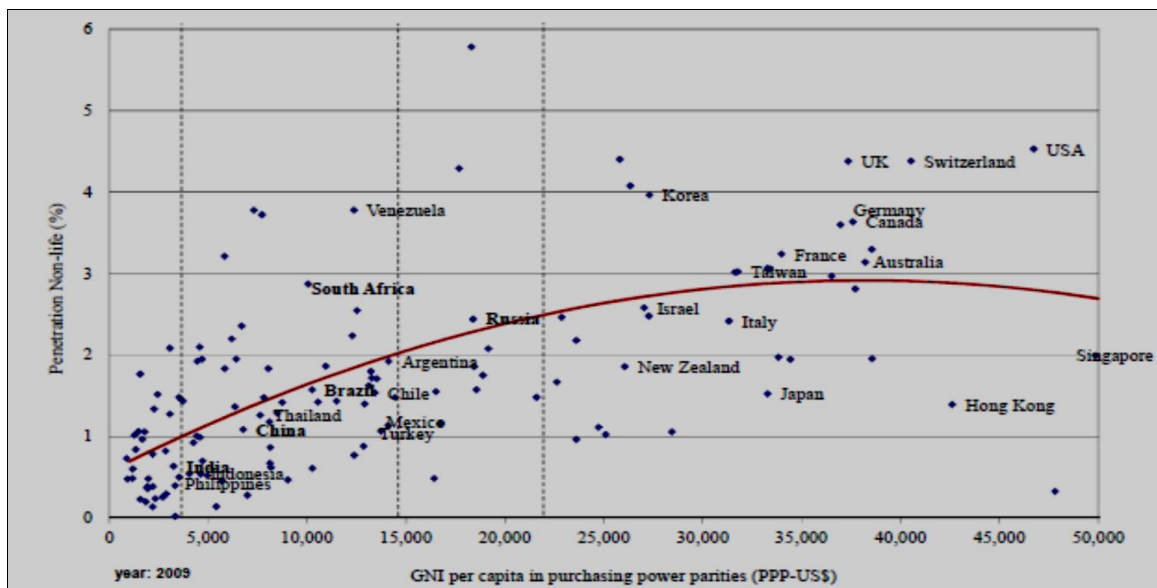
2.8.3 Interest rate

Babbal and Staking (1983) point out that rising interest rates resulted in an increase in the real cost in terms of the cash value of insurance products. Outreville (1996) indicated that an ambiguous relationship exists between the real interest rate and insurance. Beck and Webb (2003) found a positive relationship between the interest rate and insurance penetration. Shafik and Jalali (1991) signify that the evidence disputes the view that high-interest rates are associated with low economic growth in industrialized countries.

2.8.4 Income

Among all the factors of influence, income is essential in all the models of insurance demand. Higher-income is expected to increase the demand for life insurance, generating greater affordability of life insurance products. Fortune (1973), Campbell (1980), Lewis (1989), Browne and Kim (1993), Outreville (1996), and Beck and Webb (2003) have all ascertained that the demand for insurance is positively related to income. Beenstock, Dickinson, and Khajuria (1988), Browne, Chung, and Frees (2000), and Esho, Kirievsky, Ward, and Zurbruegg (2004) also discovered a positive relationship between income and expenses for property-liability insurance. Treerattanapun (2011) considered that for higher levels of GDP/capita, non-life insurance becomes more affordable.

Figure 8 The relationship between gross national income (GNI) per capita and the penetration of non-life insurance:



Source: Feyen, Lester & Rocha (2011)

Feyen, Lester & Rocha (2011) and USAID (2006) explain that during the growth phases, rising levels of per capita income are associated with increased affordability of insurance products as the growing middle-class population acquires greater disposable incomes. While income takes prominence in influencing demand for insurance services, other important factors need consideration at a country level.

2.8.5 Region

Szablicki (2002) used regional variables, including Asia, Africa, and Latin America, as control variables. Beck and Webb (2003) applied regional dummy variables and indicated that Latin America, Africa, and Asia are positively related to insurance activity. However, Borensztein *et al.* (1998) note that Latin America and Sub-Saharan Africa are negatively related to economic growth by using panel data for 69 countries and for the 1975-1995 period.

2.9 Models on Financial Development and Economic Growth

2.9.1 Informational Asymmetry Models

Information asymmetry models assume that one party to a transaction has the relevant information while the other party (ies) do not (Andreu, 1995). Asymmetric information models can also be used in situations where at least one party can enforce, or effectively retaliate for breaches of, certain parts of an agreement whereas the other(s) cannot. The two critical informational problems that any insurer faces are adverse selection and moral hazard. These are tied to difficulties associated with measuring risks and monitoring customer behavior. It is usually very difficult for private entities to measure risks, collect relevant data, monitor behaviour, and establish and enforce underwriting guidelines. These difficulties can result in high, sometimes prohibitive, transaction costs that affect the development of private insurance markets.

Losses and the events that trigger them can be difficult to define precisely (for example, the extent and nature of a disability). The insured is often able to withhold information important to the assessment of risks (for example, pre-existing damages). The existence of insurance can alter the insured's behaviour. For these reasons, governments have provided social insurance which tends to be more prevalent in Western societies where family networks and other support groups have broken down in the process of industrialization. Insurance provided by private insurers (market insurance) is more common in areas such as casualty and property, where the problems listed above are less of a concern.

In adverse selection models, the ignorant party lacks information while negotiating an agreed understanding of or contract to the transaction, whereas in moral hazard the ignorant party lacks information about the performance of the agreed-upon transaction or lacks the ability to retaliate for a breach of the agreement. An example of adverse selection is when people who

are high risk are more likely to buy insurance, because the insurance company cannot effectively discriminate against them, usually due to a lack of information about the particular individual's risk. An example of moral hazard is when people are more likely to behave recklessly after becoming insured, either because the insurer cannot observe this behaviour or cannot effectively retaliate against it, for example by failing to renew the insurance.

2.9.2 Financial Intermediation Theory

Saunders and Million (2008) points out that financial intermediation is seen as the extent to which financial institutions (banks) bring deficit spending units and surplus spending units together. Such a joining of spending units is likely to result in a more deepening of the financial system (Goldsmith, 1969). In other words, there will be more investment in the economy through the financial system. A well-functioning financial system is a *sine qua non* for the pursuit of economic growth with stability. The core function of a well-developed financial system is to facilitate the smooth and efficient allocation of resources from savers to the ultimate users. The two primary roles of financial markets are the facilitation of accumulation of capital and management of risk inherent in particular investment projects and industries. Commercial banks are likely to remain the dominant institutions for some time. However, non-bank financial intermediaries such as development finance institutions, insurance companies, and pension funds are potentially important sources of long-term finance.

2.9.3 Development Hypothesis Theory and Financial Repression Theory

The development hypothesis theory presupposes that lack of a developed financial infrastructure restricts economic growth making the focus of policy at each point in time being to ensure that the financial system operates efficiently. The theory supports a measure of intervention as being important and in fact necessary for meaningful growth. Various policies should thus be put in place to encourage and promote the activities of financial institutions. The financial repression theory resulted as a consequence. This theory is usually associated with the work of McKinnon and Shaw (1973). The implication of their studies is that financial development would contribute significantly to economic growth; authorities did not interfere in the operations of financial institutions.

2.10 Review of Empirical Studies

The assessment of a potential relationship between insurance market development and economic growth has not been extensively studied. Exceptions are the work of Ward and

Zurbruegg (2000), Webb et al. (2002), Kugler and Ofoghi (2006), and Adams, Andersson, Andersson, and Lindmark (2006).

Earlier studies like Beenstock, Dickinson, and Khajuria (1986) find that short term insurance demand is associated with GDP per capita in a sample of 12 industrialized countries between 1970 and 1981. Outreville (1990) finds that non-life insurance demand is associated positively with GDP per capita and a measure of financial development (M2/GDP) for a sample of 55 developing countries between 1983 and 1984. Browne and Kim (1993) find that life insurance consumption per capita is positively associated with GDP per capita for a sample of 45 countries for the years 1980 and 1987. Outreville (1996) finds that life insurance demand is associated positively with GDP per capita but not with financial development in a sample of 48 developing countries for the year 1986. Browne, Chung, and Frees (2000) find that non-life insurance consumption is associated positively with the income level for a sample of OECD countries over the period of 1986 to 1993.

Outreville (1990) carried out a pioneering examination of the relationship between insurance development and economic growth in developing countries. His results have shown that both short term and long-term insurance generate economic growth. The insurance facilitates not only economic transactions by transferring risks and granting insurance benefits should risks occur, but it is also regarded as a promoter of financial intermediation (Ward and Zurbruegg, 2000).

Ward and Zurbruegg (2000) examined the relationship between economic growth over the period of 1961 to 1996 for nine OECD countries. The long-term and short-term dynamics between insurance and economic growth were examined. Long-term relationships are found for Australia, Canada, France, Italy, and Japan. On the other hand, Webb, Grace, and Skipper (2002) examine the impact of financial intermediaries (banks, life, and non-life insurers) on economic growth in the context of a neoclassical Solow-Swan model. The result shows that insurance and banking promote capital stock productivity and drive the level of output and investment.

Webb, Grace, and Skipper (2001) have carried out an empirical analysis between several countries (cross-country) and have concluded that the development of the insurance sector and

of financial intermediation increases the total productivity of the production factors by facilitating the efficient allocation of capital.

Carter and Dickinson (1992) and Enz (2000) developed a logistic model to describe the relationship between insurance penetration and GDP per capita. Under these growth models, the regression curves for insurance depict an S-shaped relationship and have been referred to the S-curve model. The insurance penetration rises with the GDP per capita, but different levels of GDP are assumed to be accompanied by different growth rates of penetration. After the GDP reaches a certain level, the insurance penetration turns into a plateau. This hypothesis cannot easily be visualized on a cross-section of countries and it even breaks down for countries with GDP per capita greater than \$30. Enz (2000) emphasized that the estimation requires a very long time series and that the model neglects all factors influencing the demand for insurance other than GDP per capita. Other authors argue that the other factors linked to the culture of the nations are becoming more important at higher levels of education and GDP (Chui and Kwok 2008 and 2009; Park and Lemaire 2011).

Haiss and Sümeği (2008), by applying the Cobb-Douglas modified production function, have concluded that there are differences between the new Member States of the European Union in Central and Eastern Europe, and the countries with mature financial markets that deserve to be observed and that may indicate further investigation into future possibilities through the use of various insurance indicators and setting up a model for ever longer periods of time.

Various studies have also shown that there is a strong and positive relationship between the financial sector and economic development. Goldsmith (1969) contends that financial institution development is of prime importance for real development because the financial superstructure in the form of both primary and secondary securities accelerates economic growth and improves economic performance to the extent that it facilitates the migration of funds to the best user. This refers to the place in the economic system where the funds will yield the highest social return. In his empirical study, as reported by Nzotta (2004) Goldsmith calculated the values of the financial interrelation ratio (FIR), the ratio of all financial instruments at a given time, to the value of the national wealth. He found that the ratios for developing countries were far lower than those of developed countries and concluded that the development of financial institutions affects development; the low level of development of the financial superstructure affects development negatively. Mckinnon (1973) and Shaw (1973)

contend that various policies should suffice to encourage and promote the activities of financial institutions. The financial repression theory resulted from this. Their studies concur that financial development contributes significantly to economic growth if monetary authorities did not interfere in the operations of financial institutions and the financial infrastructure generally.

Kugler and Ofoghi (2005) evaluated both a long-run relationship and Granger-causality between insurance market size and economic growth for the United Kingdom using net written premium for each insurance market (general and long-term insurance) in the UK for the period 1966 to 2003. The authors found a long-run relationship between development in insurance market size and economic growth for all insurance components.

Adams *et al.* (2005) examined empirically the dynamic historical relation between banking, insurance, and economic growth in Sweden using time-series data from 1830 to 1998. Their results indicated that the development of banking, but not insurance (measured by total insurance premiums), preceded economic growth in Sweden during the nineteenth century, while Granger causality was reversed in the twentieth century. The insurance market appears to be driven more by the pace of growth in the economy rather than leading economic development.

According to Hsu *et al.* (2015), Yang *et al.* (2014), and Hsu and Liao (2015), the development of insurance in certain areas will depend on psychological and social factors, such as willingness to pay, level of education and age. Beck and Webb (2003), Li *et al.* (2007), and Lee *et al.* (2010) determined economic growth had a positive relationship with insurance and explained this by demonstrating how life insurance and real incomes have grown.

Feyen *et al.* (2011) further confirmed that different income levels would have various insurance demands. Empirically, different subjects and methods result in various conclusions. Employing time-series or cross-sectional datasets to analyze insurance premiums and macroeconomics in a country or among certain areas has been the mainstream approach.

Specifically, Ward and Zurbruegg (2000) investigated the causal relationship between insurance industry growth (real insurance premiums) and economic growth (real GDP) for Australia, Canada, Italy, Japan, and France. The long-term conclusion stated that most samples

had bidirectional causal relationships, but a few countries had a unidirectional causality relationship, such as France.

Cristea *et al.* (2014) established a correlation between insurance and economic growth in Romania by considering insurance penetration and insurance density. Hansen *et al.* (2014) analyzed the corresponding impacts and financing burden of a potential health insurance reform in the US. Shen *et al.* (2017) proposed a two-stage hybrid MCDM model to measure the plausible synergy effects between the life insurance industry and economy attributes.

Browne *et al.* (2000) apply a panel model to motor vehicle and general liability insurance in the OECD over the 1986–1993 period. Income and the legal system are positively correlated to insurance consumption, while loss probability and wealth are negatively correlated. The number of foreign firms in the market and higher risk aversion increase motor vehicle consumption. Browne *et al.* (2000) argue that income affects insurance consumption. The correlation with risk aversion is statistically insignificant for motor vehicle consumption and negatively connected in the cross-sectional model for general liability insurance consumption.

Park *et al.* (2002) concentrate on the link between insurance penetration and GNP and some socio-economic factors adopted from Hofstede (1983). The results of the analysis of the cross-sectional data from 38 countries in 1997 show significance for GNP, masculinity, socio-political instability, and economic freedom. Deregulation was found to be a process capable of facilitating growth in the insurance industry, supporting the expectations of Kong and Singh (2005).

Webb *et al.* (2002) use a Solow-Swan model and incorporate both the insurance and the banking sector, with the insurances divided into property/liability and life products. Their findings indicate that financial intermediation is significant. When split into the three categories, the banking and life sector remain significant for GDP growth, while property/liability insurances lose their importance. Furthermore, results show that a combination of one insurance type and banking has the strongest impact on growth.

Zou and Adams (2004) provide insights into the Chinese property insurance market for the years 1997 to 1999. Due to market regulation and the specialties of the Chinese market, this work is more suitable to provide evidence for the law-and finance view of La Porta *et al.* (1998)

or the socio-political decision model of Hofstede (1995). The results show a tendency for companies that are highly leveraged or have physical-assets intensive production to consume property insurance, while partial state-ownership or a possible tax-loss carry-forward decreases demand. Increased managerial or foreign ownership and better growth options facilitate demand, while the size of the company enters inversely.

2.10.1 Review of Empirical Studies in Africa

In Nigeria, Mojekwu *et al.* (2011) examined the impact of insurance contributions on economic growth in Nigeria for over 27 years, between 1981 and 2008 using a dynamic factor model. The results obtained showed a positive relationship between insurance contribution, measured the volume of premium, and economic growth in Nigeria. Akinlo (2012) examined the effects of insurance on economic growth in Nigeria from 1986 to 2010. The structure, growth of insurance sub-sectors, and the direction of causality between insurance and economic growth in Nigeria were addressed in the study. The findings of the study indicated that insurance measured as premium, has a positive significant influence on economic growth and that there is a long-run relationship between insurance and economic growth in Nigeria.

Odhiambo (2009) studied the impact of interest rate reforms on financial deepening and economic growth in Kenya, using two models: the financial deepening model and the dynamic Granger causality model. The study attempted to answer two critical questions: Does interest rate liberalization in Kenya have any positive influence on financial deepening? Does the financial depth which results from interest rate liberalization lead to economic growth? Using co-integration and error-correction models, the study found strong support for the positive impact of interest rate liberalization on financial deepening in Kenya - although the strength and clarity of its efficacy are sensitive to the level of the dependency ratio. The study also finds financial depth to Granger cause economic growth in Kenya. The study, therefore, concludes that the interest rate liberalization in Kenya has succeeded in increasing economic growth through its influence on financial depth. This applies irrespective of whether the models are estimated in a static long-run formulation (co-integration model) or in the dynamic formulation (error-correction model).

Ngugi *et al.*, 2006 conducted a study dubbed Capital market, Financial deepening, and Economic growth in Kenya. They attempted in the study to answer the following questions: Does the capital market facilitate deepening in the financial sector? How does the capital

market interact with other financial systems? Is capital market development related to economic growth? The study aimed at answering the question of whether capital market deepening facilitates economic growth. This was analyzed by studying the contribution of the capital market in financing investment, the relationship between capital market deepening and productivity, and finally, the relationship between capital market deepening and economic growth. To analyse the relationship between economic growth and financial deepening, they assumed the following:

Model;

$$Y = f(A, K, L)$$

They concluded that the financial sector plays a crucial role in economic development. The depth of the financial sector was generally found to promote economic growth. It was observed that well-functioning capital markets increase economic efficiency, investment, and growth. Kenya's capital market was described as narrow and shallow. The stock market and private bond market were raising less than 1% of growth financing. The vision 2030 development plan which aims to achieve annual economic growth of 10% with an investment rate of 30% was envisaged to be financed mainly from the mobilization of domestic resources. They observed that there had been a significant focus on the capital market with for example the institutional development of the stock market and the introduction of new instruments in the bonds market. It had been assumed that these efforts would facilitate the mobilization of adequate resources and the allocation of these resources efficiently to achieve growth objectives.

Nzotta and Okereke (2009) conducted a study on the financial deepening and economic development of Nigeria. This empirical study examined financial deepening and economic development in Nigeria between 1986 and 2007. The central focus was that a high level of financial deepening is a necessary condition for accelerating growth in any economy. This was because of the central role of the financial system in mobilizing savings and allocating the same for the development process. The study made use of secondary data, sourced for a period of 22 years. They specified nine explanatory variables for the study based on theoretical underpinnings. They sought to establish a relationship between these variables and the financial deepening index. Two stages least squares analytical framework was used in the analysis. A trend analysis was also done in the study. At the end of the study, they found out that the

financial deepening index is low in Nigeria over the years. They also found that the nine explanatory variables, as a whole were useful and had a statistical relationship with financial deepening. But four of the variables; lending rates, financial savings ratio, cheques/GDP ratio, and the deposit money banks/GDP ratio had a significant relationship with financial deepening. They concluded that: the financial system has not sustained effective financial intermediation, especially credit allocation and a high level of monetization of the economy. Thus the regulatory framework should be restructured to ensure good risk management, corporate governance, and stemming systemic crisis in the system.

On the other hand, insurance is most often regarded as an item of expenditure which is not required by potential buyers, particularly if they are not informed. Economists regard it as a top need that becomes fully available only after various other needs are satisfied, which is totally wrong (Liedtcke, 2007).

Omoke (2012) makes use of insurance density (premium per capita) as a measure for insurance market activity and real GDP for economic growth in Nigeria between 1970 and 2008. The study employed control variables such as inflation and savings rates as other determinants of growth. The Johansen (1988,1991) co-integration and vector error correction approach were used to estimate the relationship between the variables. The finding of the study is that insurance does not reveal any positive and significant effect on economic growth in Nigeria within the period of study. The result shows low insurance market activity and development in Nigeria.

Eze and Okoye (2013) used the co-integration test and error correction model to examine the impact of insurance practice on the growth of the Nigerian economy. Insurance premium capital, total insurance investment, and insurance sector development are used as measures of insurance development. They concluded that there is a significant positive effect of insurance practice on the growth of the Nigerian economy. In addition, Yinusa and Akinlo (2013) analyzed both the long and short-run relationships between insurance development and economic growth in Nigeria over the period 1986 to 2010. Using the error correction model (ECM), the study finds that insurance development is cointegrated with economic growth in Nigeria. There is a long-run relationship between insurance development and economic growth in Nigeria. The results showed that physical capital and interest rates both at contemporary and one lagged value have a significant positive effect on economic growth in Nigeria while

physical capital and inflation have negative long-run relationships with economic growth. The results generally indicate a statistically significant contribution of insurance to economic growth in Nigeria. In contrast, Olayungbo (2015) investigated the asymmetric non-linear relationship between insurance and economic growth in Nigeria from 1976 to 2010. The conclusion is that the asymmetric effect is present in Nigeria's insurance market. Also, unidirectional causality runs from positive GDP growth to negative insurance premium growth. In addition, the robustness results, using variance decomposition and impulse response with control variables, show that low insurance promotes high growth in Nigeria. The impulse responses also showed the presence of an asymmetric relationship between low insurance and high growth in Nigeria.

A panel study by Akinlo and Apanisile (2014) examined the relationship between insurance and economic growth in sub-Saharan Africa over the period 1986–2011. The results showed that insurance had a positive and significant impact on economic growth in sub-Saharan Africa. It showed that premium contributes to economic growth in sub-Saharan Africa which means that a well-developed insurance sector is necessary for economic development, as it provides long-term investments for economic growth and simultaneously strengthening risk-taking abilities.

In conclusion, from the insurance-growth literature, it is clear that studies on African countries are scarce. This research paper, therefore, fills this gap in the insurance-growth literature.

Table 3 Summary of Literature Review

Author	Scope	Method	Result
Outreville (1990)	55 Developing Countries	Cross Section Analysis	The financial sector in developing countries is an important element of economic development and therefore policies for increasing the supply of the insurance industry should be continued.
Mohammad (1998)	Kuwait	Regression Analysis	A 1% increase in per capita income helps the insurance sector grow by 2.9%.

Ward and Zurbruegg (2000)	9 OECD Countries	Granger Causality Test	In some of the relevant countries, a causal relationship is found to be from the insurance sector to economic growth, in the rest, it is vice versa.
Webb (2002)	55 Developing and Developed Countries	Cross Section Analysis	The positive effect of the banking and insurance sector on economic growth is stronger than their individual effects.
Kugler and Ofoghi (2005)	England	Cointegration And Causality Test	The cointegration relationship between economic growth and the insurance sector as well as a causal relationship from the insurance sector to economic growth both in the short and long term has been found.
Adams (2005)	Sweden	Cointegration and Causality Test	The development of the banking sector helps the development of the insurance sector and therefore affects economic growth positively
Vadlamannati (2008)	India	Cointegration and Causality Test	Insurance sector reforms positively affect economic growth and the insurance industry should be an important part of financial intermediation services.
Arena (2008)	55 Developing & Developed Countries	Dynamic Panel Data Analysis	Life and non-life insurance positively affect economic growth in developed and developing countries. But life insurance affects economic growth only in developed countries.
Haiss and Sümegi (2008)	29 European Countries	Cross Section Analysis	Life insurance on the five European countries positively affects economic growth.

Ćurak (2009)	10 Transition Countries	Panel Data Analysis	A positive relationship between economic growth and life and non-life insurance is found.
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As can be seen in Table 2.3, the studies on the subject reveal that the insurance industry is important for economic growth.

2.11 Conclusion

The main intention of this study was to examine the link between insurance development and economic growth (the insurance-growth nexus), which is an important issue that has only relatively recently become the subject of wider interest.

The review of the literature leads to the conclusion that financial development encourages long-term economic growth, despite the fact that in the short-term it can bring about economic recession due to financial crises. The literature describes a large amount of empirical research. As far as insurance is concerned, it should be noted that in recent decades its importance has grown in economies, mainly due to the liberalization of financial systems, globalization, and the conglomeration of financial markets. The role of the insurance sector and its contribution to economic growth is appreciated not only by scientific communities, but also by major international organizations such as UNCTAD, the World Bank, and the International Monetary Fund.

Insurance activity substitutes and complements public sector expenditure on security programs, facilitates loss prevention either directly by investing in loss prevention programs such as medical research, fire prevention, or highway safety, or indirectly by tying premiums to loss experience. In addition, empirical evidence from developed economies shows that insurers are among the major employers and investors. Thus, they may have a positive impact on important factors of economic growth, such as private savings rates, the percentage of savings directed towards investments, the marginal productivity of investment. Their activity, like that of banks, creates growth in the economy.

From the above, it is possible to conclude that there is a good theoretical justification for insurance development influencing economic growth, and vice-versa.

The next chapter outlines the methodology to carry out the research study.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter provides the detailed steps and procedures used to conduct the research on the relationship between insurance development and economic growth in Zimbabwe between 2009 and 2019. This section includes the approach and strategy adopted to examine the two variables in question, techniques employed to collect data, the sampling mechanism including sample size and expected relations between the dependent and independent variables. The methodology of this paper was based on the objectives of the research paper and the availability of the significant information. In addition, the data collection method, sample selection as well as validity and reliability issues are presented. At the end of the chapter an overview of the methodology is provided.

3.2 Research Design

The researcher used the mixed method design approach to cater for the research objectives which are quantitative and qualitative in nature. (Nako, 2014). Quantitative research involves the collection of data so that information can be quantified and subjected to statistical treatment in order to support or refute “alternate knowledge claims” (Cresswell, 2003). Creswell, (2003) defines qualitative research design as a design which requires the inquirer to make knowledge claims based on constructivist perspectives meaning that it uses strategies of inquiry such as narratives, phenomenologies, ethnographies and case studies.

According to Saunders et al (2007) research can be divided into two categories, that is, a deductive approach and an inductive approach. The main distinction between the two relates to the existence and placement of hypotheses and theories. Where a researcher adopts a range of hypotheses the research is aimed to explore, then it will be a deductive approach. The deductive approach holds that conclusions are derived logically from available facts. It involves moving from theory to hypothesis, observation and confirmation (Burney, 2008). This study suited the deductive approach in that the researcher explored the relationship insurance variables and economic growth. A lot of effort was made to ensure non-interference and thereby maintaining the researcher’s independence. In order to analyze the relationship between insurance development and economic growth, the deductive approach was adopted in this research.

Hypothesis to be tested:

H₀: Insurance development is dependent on economic growth.

H₁: Insurance development is independent of economic growth.

The research was primarily quantitative research based on published financial results of the chosen samples. However, qualitative information was also gathered from the short-term insurance industry. The Zimbabwean short term insurance industry comprises 18 registered short-term insurers and all the companies were considered for analysis.

3.3 Population and Sample

3.3.1 Target population

In research, the term ‘population’ refers to the subjects, objects or phenomenon under study (Albright et al., 2006). The population comprises 18 short-term insurance companies in Harare, Zimbabwe. This population offers the characteristics of what is considered from this research.

3.4 Sample and Sampling Methods

Convenience and purposive sampling techniques were used in selecting the short –term insurance companies as these non-probability techniques allow units to be selected based on the characteristics which are present within a specific population group. 7 insurance companies were conveniently sampled from 18 short-term insurance companies based on the Gross Written Premiums for the 2009-2019 period. From the 7 companies considered, at least 5 questionnaires were distributed taking into consideration the different roles each respondent played in his or her company. Though Yohanne (1967) postulated that if the population is less than 50, then consider all the available units, in this research the 7 companies chosen were not chosen as individual entities but the study targeted insurance practitioners working in insurance companies, insurance brokers and insurance agents.

3.4.1 Sample size determination

In this research, 7 insurance companies were sampled from a population of 18 short term insurance companies. Though the population of short- term insurance companies was very few, the need to consider 7 out of 18 was arrived at after determining that each company was to be issued with not less than 5 questionnaires. This saw 10 questionnaires each being distributed to 6 companies and the other company was given 5 due to its company size. Each of these questionnaires were distributed according to their various roles within the organization. The need to sample only 7 companies was also necessitated by time and cost constraints. Salkind (2020) cited that an appropriate sample size is necessary for any reach as small samples may

not be representative of the entire population, this was taken into consideration since in this study the 7 companies were not our targeted audience but the different individuals within the 7 organizations. The issue of type 1 error which normally arises due to small samples, was taken into consideration when we sampled 65 participants from these 7 organizations.

When determining the sample size, we took note of the following formula:

$$n_0 = \frac{N \times X}{X + N - 1},$$

Where $X = [(Z_{(\alpha/2)})^2 \times p \times (1 - p)] \div \text{Margin of error}$

The level of significance in this case is 95% with a precision rate of 5% and the margin of error in this case is 3%. The 95% confidence level gives us $Z_{crit} = 1.96$.

$$X = \frac{1.96^2 \times (0.5) \times (0.5)}{0.03^2} = \frac{3.8416 (0.25)}{0.0009} = 1067.1111111111$$

$$n_-(0) = \frac{(65 \times 1067.11111)}{(1067.11111 + 65 - 1)}$$

3.5 Data and Data collection tools

Primary and secondary data was used in this research. Primary data was also obtained from the questionnaire. Secondary data means data that is already available, that is, data which have already been collected and analysed by someone else. (Kothari, 2004).

3.5.1 Surveys

3.5.2 Questionnaires

The questionnaire is the data collection tool mainly used for qualitative and/or quantitative research. It comprises a set of questions that may be open-ended or closed-ended suitable for revealing relevant responses to answer the research questions. The questionnaire was chosen for its relevancy as it enabled the respondents to provide ideal responses in an environment conducive to them. The questionnaire was also chosen for its potential to collect data from many respondents at the same time in a short space of time. A sample of the questionnaire is attached as an appendix. The questionnaire was divided into three sections as detailed in Appendix B. Section A contained questions relating to personal characteristics. Section B assessed the ownership of various types of insurance and reasons for buying and not buying non-life insurance. Section C contained questions on factors that affected the insurance

purchase decisions. A total of 65 questionnaires were distributed to participants and only 46 questionnaires were returned.

3.6 Variables in the study

The variables in the study are nominal and ordinal.

Table 4 Variable identification for the study

Variables	Interpretation	Interpretation
<i>x1</i>	Gross Domestic Product	1= affect, 2= doesn't affect
<i>x2</i>	Consumer Price Index	1=yes,2=no
<i>x3</i>	Producer Price Index	1= affect, 2= doesn't affect
<i>x4</i>	Inflation	1=yes,2=no
<i>x5</i>	Current Employment Statistics	1=yes,2=no
<i>x6</i>	Interest rates	1= affect, 2= doesn't affect

3.6.1 Dependent variable

According to Barlett, Kotrilk and Higgins (2011) a dependent variable is anything that has a quantity or quality that varies. The dependent variable is the variable the researcher is interested in. The dependent variable in this study is economic growth and how it impacts insurance development. The research considered 7 insurance companies in Harare based on their Gross Written Premiums for the 2009 to 2019 period.

3.6.2 Independent variable

An independent variable is believed to affect the dependent variable as highlighted by Barlett, Kotrilk and Higgins (2011). The independent variable in this paper encompasses factors that determine the purchasing decision of insurance products which are gross domestic product, consumer price index, producer price index, inflation, current employment statistics and interest rates.

The selection of variables was guided by findings of the research and the theoretical foundation.

3.7 Validity and Reliability of Data Collection Instruments

Validity may be defined as the extent to which an instrument measures what it purports to measure, put in other words, validity concerns itself with matters of relevancy and in order to ensure validity of data collection instruments the researcher was guided by expert knowledge as accumulated in the literature of past research of a similar nature. Reliability on the other hand is concerned with issues of accuracy, that is, how accurate an instrument measures what it purports to measure, as highlighted by Heale and Twycross (2015). In order to ensure reliability of instruments the questionnaire was pilot tested, and corrections were made.

3.8 Data Presentation and Analysis

Statistical data checklists were presented in visual form using graphs and tables. Analysis was done using both deductive and inductive reasoning techniques based on the patterns and themes which emerged from the findings.

3.9 Research Ethics

According to Velasqueze, Andre and Meyer (2010) ethics are based on well-founded standards of right and wrong that prescribe what humans ought to do, usually in terms of rights, obligations, benefits to society, fairness, or specific virtues. The researcher sought clearance from various short term insurance companies in order to get permission to carry out the research. The researcher also sought the informed consent of participants before including them in the research. Respondents' contributions were treated with utmost confidentiality and would

therefore not be divulged to third parties. The researcher also endeavoured to be as truthful as possible throughout the research process including accurate reporting of data. The researcher also exercised reflexivity by locating herself in the research process.

3.10 Conclusion

This chapter was organized to include introduction, research design, population and determination of sample size; tools for data collection that is the questionnaire and their relevance to this study were also elaborated, going down to research general guidelines. Elaboration and explanation of the issues related to research methodology were also highlighted that included the choices of research methodology, philosophy, data analysis and data collection methods and the same was justified. The results of the data gathering exercise will be presented and analysed in the next chapter.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the analysis and presentation of the research findings on the relationship between short term insurance development and economic growth in Zimbabwe. The researcher used a number of statistical tools such as bar graphs, tables, pie charts and percentages and these have been used to clearly illustrate the findings from both primary and secondary data gathered by the researcher. In addition, inferential statistics was also used to give more meaning to the data, following which tests are conducted to confirm whether the postulated hypotheses are either accepted or rejected. The results are presented on the relationship between economic growth and short- term insurance development in Zimbabwe for the period covering 2009 to 2019. The study targeted a total of 7 insurance companies for secondary data collection obtained from IPEC, Reserve Bank of Zimbabwe and the Ministry of Finance. A discussion of all the issues then ensues, with reference to literature.

4.2 Data Analysis

Descriptive and inferential statistics were used to discuss the findings of the study. Frequencies and means were used in explaining the findings. The study targeted respondents in the insurance sector and also those outside. The study targeted insurance practitioners working in insurance companies, insurance brokers and insurance agents. It also focused on others outside the sector both in formal and informal employment. The following section discusses their responses.

4.3 Survey Responses

Questionnaires were randomly distributed to customers of 7 insurance companies in Harare and the Insurance and Pensions Commission with the outcome detailed in Table 5. The names of both the companies and respondents have been withheld for confidentiality reasons.

Insurer	Issued Questionnaires	Total Responses	Response Rate
A	10	7	70%
B	10	8	80%
C	10	7	70%
D	10	6	60%
E	10	8	80%
F	10	6	60%
G	5	4	80%
Total	65	46	71%

Table 5: Response rate

The overall response rate was at 71%, which was positive, and boosted by the 80% response rate from three companies (A, C & G). However, after removing invalid responses, 46 correctly completed and acceptable questionnaires remained for analysis. Thus, the valid response rate was 66%. According to Mugenda (1999), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. Based on the assertion, the response rate was considered to be acceptable.

4.4 Reliability Tests

The Cronbach's Alpha was used to measure the inter-item reliability of each of the variables being studied. This is a measure of internal consistency, or how closely related a set of items are. The results are in Table 6:

	Variable	Cronbach's Alpha
1	Gross Domestic Product	
2	Gross Written Premium	0.707
3	Insurance Penetration Rate	0.835

4	Insurance Density	0.778
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Table 6: Reliability Statistics

As shown in Table 4.2, all the variables had a reliability score above the 0.70 minimum considered acceptable in social science research (Fatimah *et al.*, 2012).

4.5 Qualitative Data Analysis

Questionnaires were sent out to a total of 65 respondents, this saw 10 questionnaires each being distributed to 6 companies and the other company was given 5 due to its company size. The questionnaire respondents cited a variety of reasons which they thought were the major causes of growth in gross written premium for short term insurers from 2009. These are listed below:

4.6 Types of short-term insurance products in demand:

Figure 9 below shows the types of short-term insurance products bought by respondents. The highest proportion of respondents (93%) own a motor vehicle insurance policy, followed by home insurance (28%).

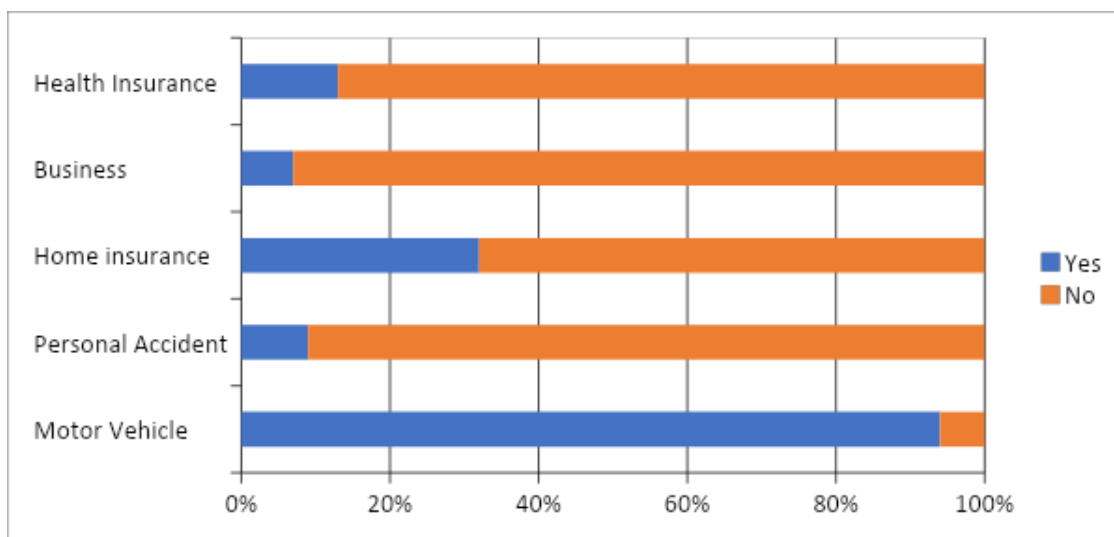


Figure 9 Types of insurance products bought

Low consumption levels were observed for Health, Personal Accident and Business insurance products (13%, 9%, and 6% respectively). It was noted that 48% of the respondents had bought more than one short term insurance policy.

The distribution of expenditure on non-life insurance services is shown in Table 4.3 below, based on the annual amounts spent on non-life insurance products.

	Expenditure	Frequency	Percent	Cumulative Percent
1	Less than \$250	35	54%	54%
2	\$250 to \$499	17	26%	80%
3	\$500 to \$749	4	6%	86%
4	\$750 to \$999	3	5%	91%
5	\$1,000 and above	6	9%	100%
	Total	65	100%	

Table 7: Amounts spent annually on short term insurance services

From Table 4.3 above, 80% of the respondents spend less than \$500.00 per annum on short term insurance services, 54% of which spend below \$250.00. It is only 11% whose expenditure is in the middle classes between \$500.00 and \$999.00. There is also a considerable proportion of 9% which spends at least \$1,000.00 annually.

4.7 Income Level

The monthly income levels amongst the respondents are diagrammatically represented in Figure 10. The histogram depicts a distribution where most respondents' incomes are concentrated in the middle income, with few in both the low- and high-income groups. The highest number of respondents (42%) earned incomes between US\$1,000.00 and US\$2,500.00 monthly.

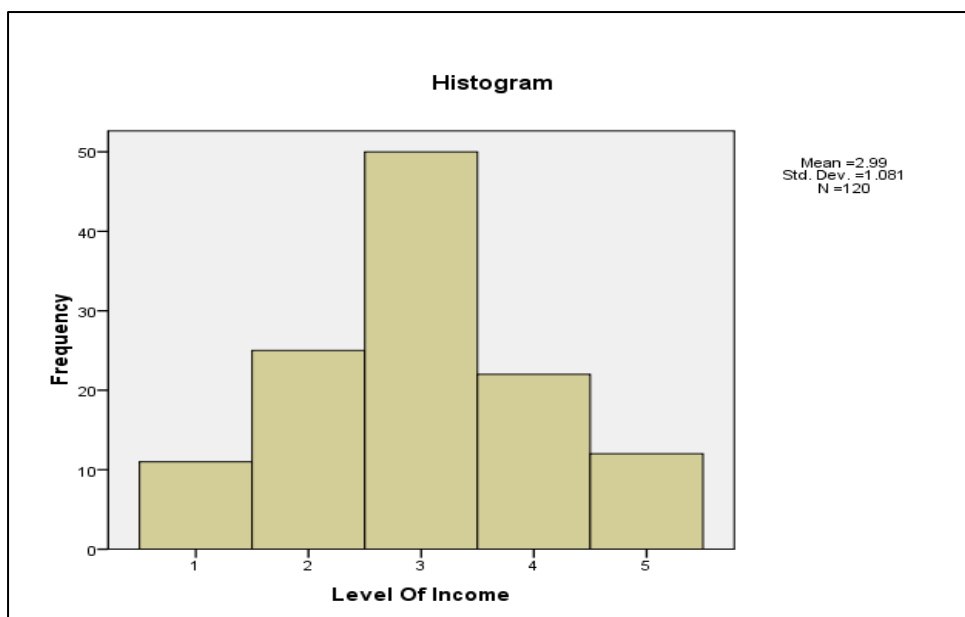


Figure 10 Income levels of respondents 1

Figure 11 below represents the relationship between monthly income of the respondents and the amounts spent annually on non-life insurance products.

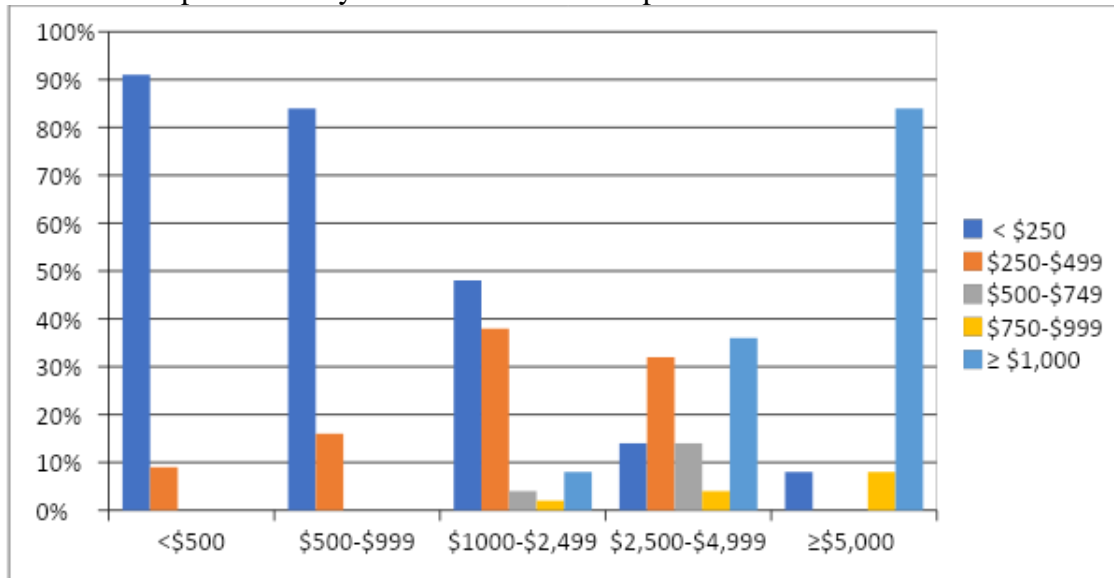


Figure 11 Cross-tabulation of Income against Expenditure

As shown in Figure 4.8, the low-income earners generally correspondingly spend less on insurance whilst high income earners spend more on insurance. All the respondents earning less than \$1,000.00 monthly spend less than \$500.00 on insurance annually. On the other extreme end, the majority of respondents who earn more than \$5,000.00 (92%) spend at least \$750.00 annually on insurance.

4.8 Major Causes of growth in premiums since 2009 (post-dollarisation)

- Improved performance of the economy
- More disposable incomes
- Increase in industrial and agricultural production
- Awareness of insurance products and their relevance
- Increase in the motor vehicle population
- Compliance with insurance regulation

4.9 The extent to which growth in GDP is in line with GWP growth

The research also sought to establish if this growth in premiums underwritten was in line with economic growth. Results showed that 60% of the respondents felt the growth was moderately in line with economic growth whilst 40% felt the growth was to a lesser extent in line with economic growth. The results indicate that the growth in premiums is positively related to economic growth, however only to a moderate extent.

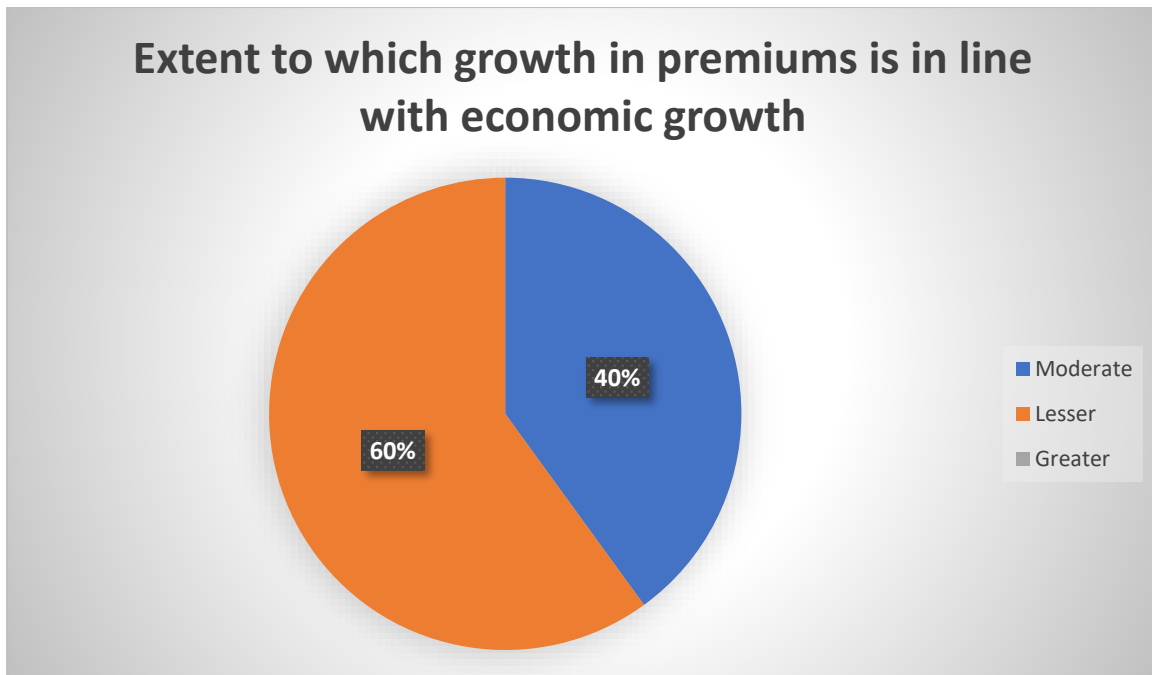


Figure 12 Extent to which GDP growth is in line with GWP growth.

4.10 Relationship between growth in gross written premium and GDP growth

All the respondents cited that growth in GDP does not necessarily entail GWP growth implying that the two variables might not necessarily be positively correlated or be correlated at all. However, the research also sought to establish why all the respondents thought that economic growth does not necessarily mean increase in insurance development. The following were the reasons given for this assertion;

- Growth in insurance premiums might be due to other factors, for example, increase in motor vehicle population or softening of rates.
- Growth that is accompanied by high acquisition costs.
- Growth resulting from cash flow underwriting.
- Too much concentration on top line growth at the expense of bottom -line growth.

4.11 Demographic Information

4.11.1 Economic and Insurance Indicators

The table below provides the economic and insurance indicators for the years 2012 to 2019.

Item	Years							
	2012	2013	2014	2015	2016	2017	2018	2019
Nominal GDP (billion)	12,39	13,49	14,20	14,17	14,16	16,65	24,31	21,44
Population (‘000)	13,061	13,369	13,652	13,943	14,240	14,575	14,440	14,657
Gross Written Premium (‘000 USD)	193,998	209,837	214,915	214,706	215,973	236,469	277,350	1,374,864
Penetration Ratio (%)	1.53	1.54	1.53	1.52	1.52	1.42	1.44	1.63
Insurance Density (USD)	14.54	14.46	15.24	15.40	15.17	16.22	17.20	17.30

Table 8: Economic and Insurance Indicators: Source: Zimstat and IPEC Short Term Insurance Reports

The insurance penetration ratio increased by 0.19% to stand at 1.63% in 2019. The real premium growth increased by 708.7% in 2019. On a per capita basis the insurance density grew from an average of \$14.54 in 2012 to \$17.30 in 2019. This reflected a growth of 15.95% that was spent on insurance.

4.11.2 Comparative trends of GDP and Insurance Penetration Ratio

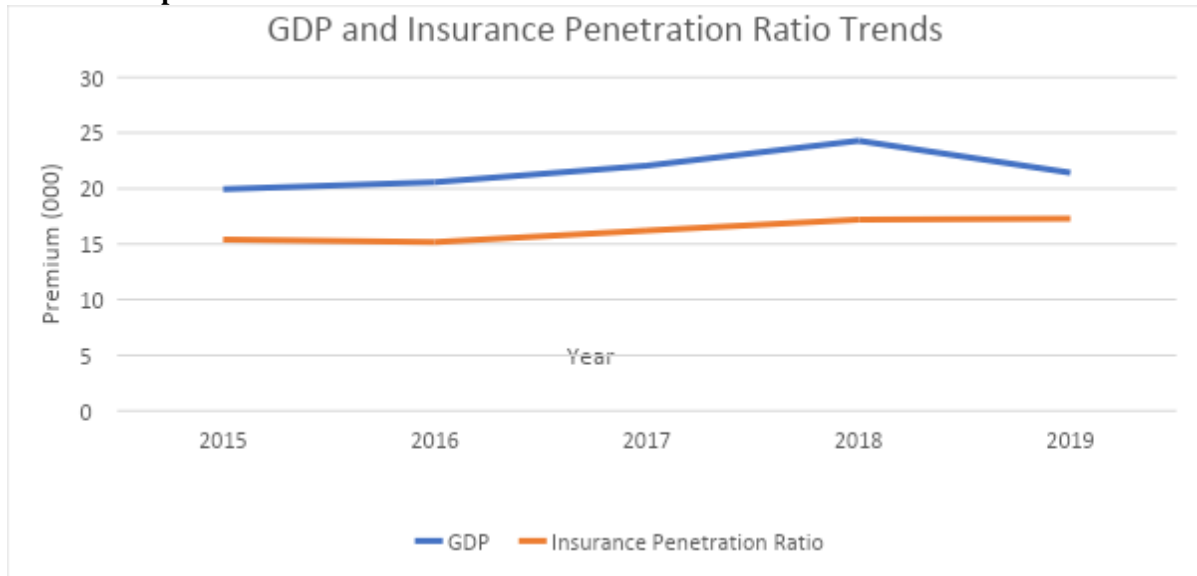


Figure 13 Comparative trends of GDP and Insurance Penetration Ratio

4.11.3 Comparative trends of GDP and Insurance Density

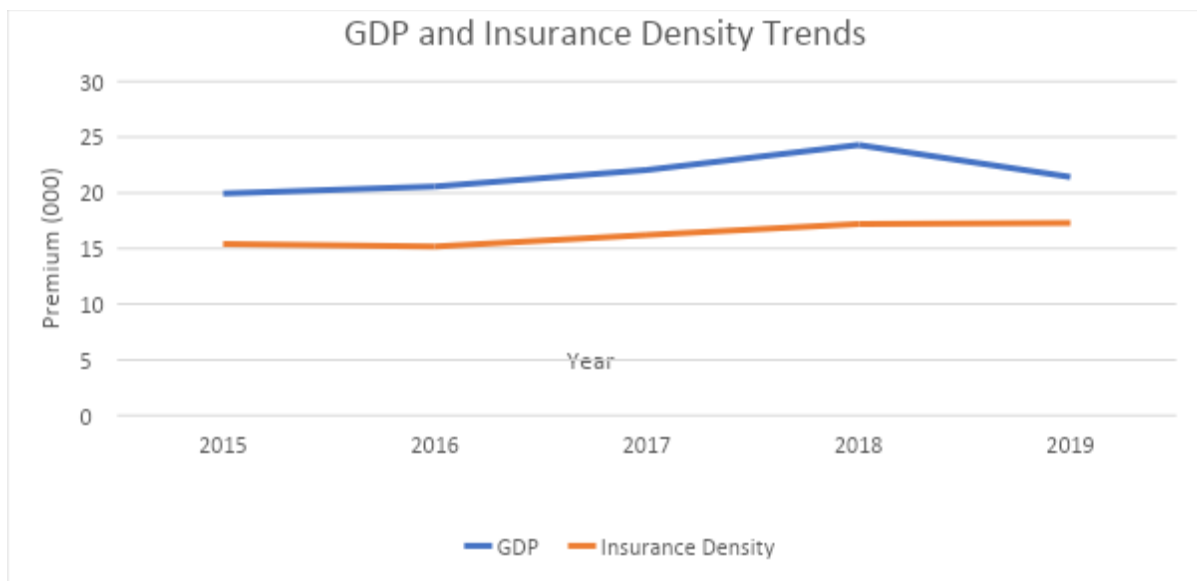


Figure 14 Comparative trends of GDP and Insurance Density

4.11.4 Comparative trends of GDP and Gross Written Premium

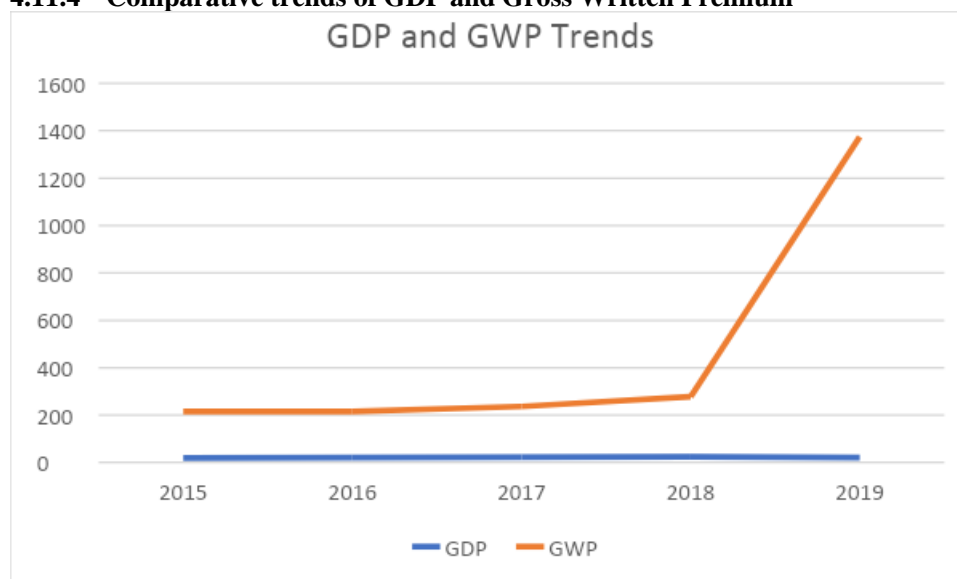


Figure 15 Comparative trends of GDP and Gross Written Premium

From figures 13, 14 and 15 above, it can be seen that there is a positive relationship between the variables. However, in 2019 the Gross Written Premiums went up significantly compared to the Gross Domestic Product as highlighted above.

4.12 Empirical Results

To investigate whether there is a causal relationship between insurance development and economic growth in Zimbabwe, the empirical analysis begins with descriptive statistics. Descriptive statistics of data series provides information about sample statistics such as mean, median, minimum value, maximum value and distribution of the sample measured by the skewness and kurtosis statistic. Table 4.6 reports some descriptive statistics of variables for a period 2015 to 2019.

	Gross Domestic Product	Gross Written Premium	Penetration Rate	Ins. Density
Mean	21,660,000,000.00	463,914,200.00	1.51	16.26
Median	21,400,000,000.00	236,469,000.00	1.52	16.22
Maximum	24,310,000,000.00	1,374,864,000.00	1.63	17.30
Minimum	19,960,000,000.00	214,915,000.00	1.42	15.17

Std Deviation	1,683,552,790.98	0.083486526	0.083486526	0.986721845
Skewness	1.080416	2.222504	0.595978	0.020673
Kurtosis	1.212762	4.950074	-0.20014	-2.84474
Sum	108,300,000,000.00	2,319,571,000.00	7.54	81.29
Observation	8	8	8	8

Table 9: Descriptive statistics of variables

Table 9 shows that all the series display a high level of consistency as their mean and median values are perpetually within the minimum and maximum values of these series. Moreover, the relatively low standard deviations for most of the series indicate that the deviations of actual data from their mean values are very small.

4.13 Correlation Analysis between GDP and GWP, Insurance Penetration Rate and Insurance Density

This section shows how the variables are related with each other. The results of this analysis represent the nature, direction and significance of the correlation of the variables considered under this study. Correlation coefficients are designed to test for the existence of a relationship between variables and to give an indication of the strength of the relationship. This study sought to establish the kind of relationship that exists between GDP, GWP, Insurance Penetration rate and Insurance Density.

4.13.1 Regression Analysis

In addition, a simple regression analysis was conducted so as to test the relationship among variables. The following regression formula was used;

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

The results are shown in the graphs below;

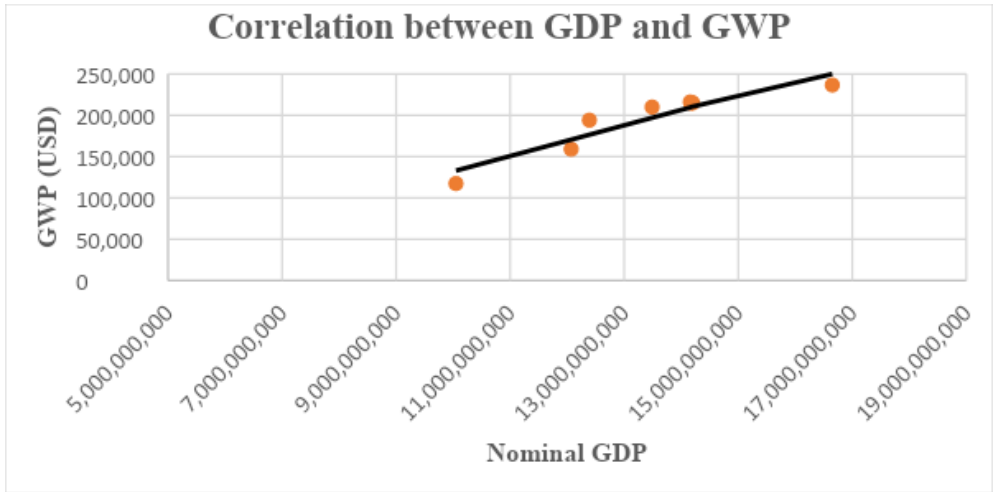


Figure 16 Correlation between GDP and GWP

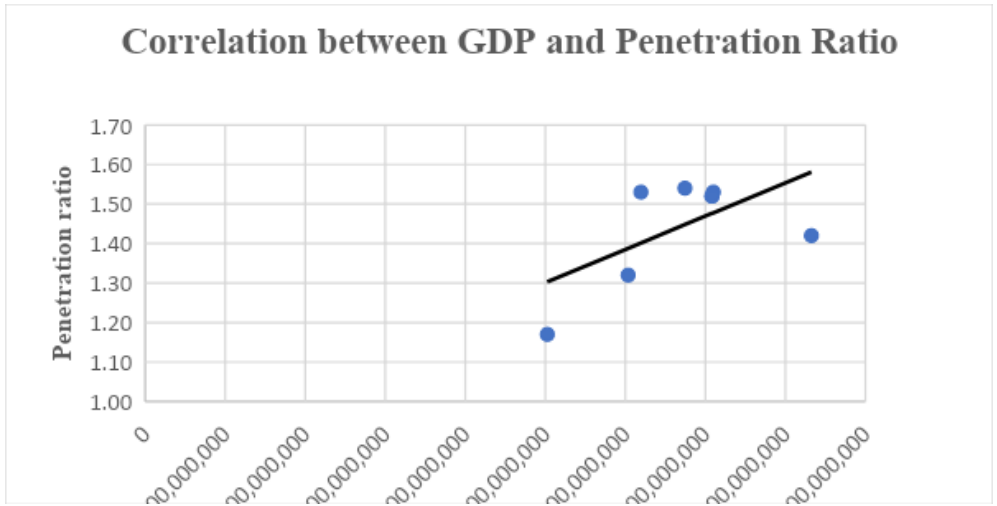


Figure 17 Correlation between GDP and Insurance Penetration Ratio

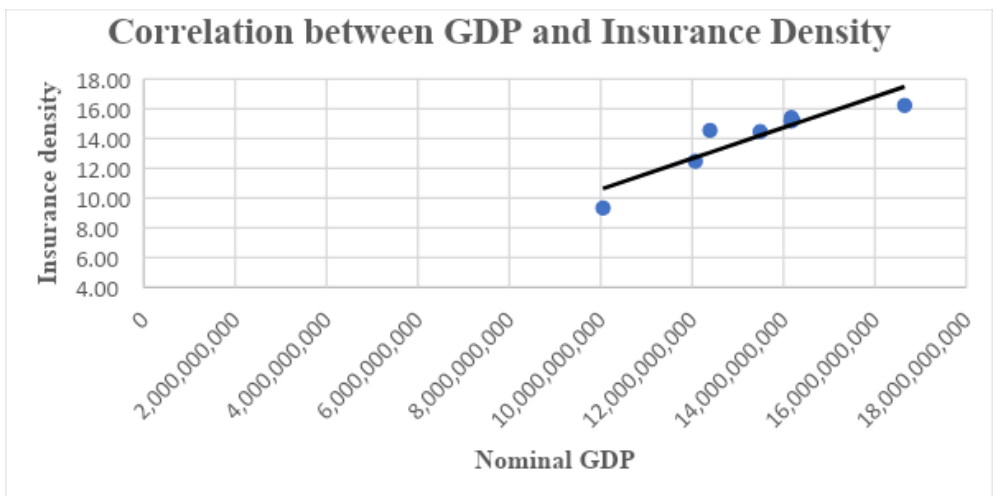


Figure 18 Correlation between GDP and Insurance Density

Coefficient of determination is meant to explain the extent to which changes in the dependent variable (economic growth) can be explained by the change in the independent variable (gross written premium, insurance penetration and insurance density) or the percentage of variation in the dependent variable that is explained by all the independent variables. The correlation and coefficient of determination of the dependent variable with the independent variable was measured and tested. From the findings there was a perfect positive correlation between GDP and Gross Written Premium at 94%. There was also a strong positive correlation between GDP and Insurance Penetration of 61% and a perfect positive correlation between GDP and Insurance Density of 91%.

4.14 Tests for relationships between variables

The ANOVA test was also conducted to demonstrate the significance of economic growth (as measured by the nominal GDP) on expenditure on insurance, with the results in Table 4.9.

Table 10: One-Way Analysis of Variance

Variables	Sum of Squares	DF	Mean Square	F	Sig.
Level of GDP	62.426	4	15.607	23.44	0.000

There is a statistically significant difference between GDP growth and annual expenditure on insurance services ($p < 0.05$). The GDP variable was further analysed to investigate the strength of its association. Table 4.10 shows the results of the analysis of Pearson's correlation coefficients.

Table 11: Pearson's Correlation of Income

Variables	Pearson's Correlation	Sig. (2-tailed)
Level of GDP	0.665	0.000

As shown in Table 4.10, the correlation coefficient for the variable income at 0.665 depicts a very strong positive relationship with annual expenditure on short term insurance. This means that as the GDP increases, expenditure on short term insurance also increases; and vice versa. GDP growth is therefore a very strong predictor of the demand for short term insurance. The significance (2-tailed) value ($p < 0.05$) indicates a statistically significant correlation between the GDP variable and insurance demand.

4.15 Hypothesis Testing

This study was centred on the relationship between economic growth and of short-term insurance development in Zimbabwe. The null and alternative hypotheses formulated were thus as follows;

Hypothesis to be tested:

H₀: Insurance development is dependent on economic growth.

H₁: Insurance development is independent of economic growth.

Correlation results based on 2015 to 2019 figures showed a positive relationship between growth in GDP and gross premium written, insurance penetration rate and insurance density, which means H_0 is rejected and H_1 is accepted. Regression results for the four periods 2015 to 2019 also show a relationship between the two variables and the R square was nearer to one hence economic growth can be used to make predictions on short term insurance development.

4.16 Conclusion

In this chapter, the data collected from the survey was summarized in tables, charts and graphs to demonstrate demographic characteristics, as well as to consolidate the views and perceptions of respondents. Tests were then done to test the postulated hypotheses. A discussion of the findings followed, with an inclination towards relating the issues to the conclusions from previous researchers.

The study sought to establish the relationship between economic growth and short term insurance development in Zimbabwe. Studies of other researchers were taken into consideration and there was a general consensus that economic growth and insurance market development as a whole are related.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter draws conclusions and recommendations from the findings of the study. An attempt was made to answer the main research question and the other related research questions. At the end of the chapter the direction for future research is then presented.

The objective of this study was to examine the relationship between the economic growth and short-term insurance development in Zimbabwe. The period of study coverage was ten years running from 2009 to 2019. The population included the 18 registered insurance companies in Zimbabwe.

5.2 Conclusions

5.2.1 To establish the relationship between non-life insurance development and economic growth in Zimbabwe and hence to fill a gap in the current insurance-growth nexus literature.

According to the results, insurance sector development has a positive impact on economic growth of Zimbabwe. Therefore, the function of insurance companies, that is, providing means of risk management and performing mobilization and allocation of resources (Marijuana *et al.*, 2009), are important for economic growth. As the increase in the number of insurance companies contribute to economic growth according to the results, it is suggestive for insurance sector policy makers to implement the policies that are going to provide more insurance companies with highly competitive minds and increasing efficiency in the insurance industry. This also suggests that the Government should provide an appropriate environment for insurance businesses to grow.

5.2.3 To measure the development of non-life insurance in Zimbabwe.

From the findings it can be concluded that most people are not fully aware of the non-life insurance products available in the local insurance market. This is the reason why there is a high proportion of consumers who only buy some classes of non-life insurance, for example motor vehicle insurance, because it is a regulatory requirement to do so. This partly explains why all the respondents with motor vehicles buy motor insurance, leading to the motor

insurance business line's high contribution to the market's GWP. Hence, the development of other products other than motor is limited.

5.2.3 To identify challenges being faced by short term insurers in accessing the uninsured segments of the economy.

The study findings also show that the low insurance penetration in Zimbabwe can be explained by the cost of insurance services as supported by a number of authors. Dowd (2007) and Tenkorang (2001) noted that there is a need for insurance companies to change their underwriting to lower the cost of premiums. The study also recommends the need for flexibility in modes of premium payments to attract insurance customers.

The study also noted that the high cost of premiums and inefficiency in claims settlement are the major factors hindering the penetration of non-life insurance in Zimbabwe. Other major factors hindering the penetration of non-life insurance include poor agents' integrity, poor customer service, lack of disposable incomes to buy insurance, lack of product variety, the complicated nature of non-life insurance products, lack of country-wide presence by insurance companies and poor distribution channels.

5.2.4 Analysis of variables that may enhance the growth of the non-life insurance sector.

From the findings it can be concluded that economic growth and insurance sector development are cointegrated, that is, they move in tandem to each other in the long run. The causal relationship between insurance sector development and economic growth in Zimbabwe as understanding the link is critical to policy makers in their quest to grow the economy and regulate the insurance industry. The findings lend credence to the 'demand-following' insurance-growth hypothesis. As the insurance-growth nexus will continue to preoccupy the minds of researchers, we also suggest that in the future the focus of this research should also turn to the interplay of culture, regulation and the influence of other financial intermediaries.

5.2.5 To examine the impact of non-life insurance development on economic growth using non-life insurance penetration as a measure of insurance development.

From the findings it can be concluded that the positive and substantial impact of non-life insurance penetration on economic growth as revealed in the result submitted that there has been an upward movement and advancement of non-life insurance penetration. The insurers

should come up with new non-life products and adjustment of existing insurance products, thus availing customers the opportunity of choosing from a variety of products.

5.3 Recommendations

5.3.1 Marketing Strategies

The challenge for insurance companies is to craft robust and aggressive educative promotional marketing strategies to spread insurance awareness to the public. Emphasis should be less on motor insurance where consumption and awareness is high owing to the fact that third party insurance is compulsory but more on the non-motor insurance products, where consumption is generally low. The insurance products should be packaged in a manner that assures clients of peace of mind, convenience and assurance in the event of the occurrence of unforeseen events. Insurers must also consider more modern platforms to spread awareness which include e-business (internet), m-commerce (mobile phones) and the social media (facebook, twitter etc.). This has worked in other countries like Kenya and India. The strategy could include the building of trust through consumer protection.

Demand for insurance should not be taken for granted. The perception of insurance in the developing world is often negative and an innovative approach to market education and incentives is called for. Many people in the developing world are not familiar with the concept of insurance. Insurers must build trust through innovative approaches, including literacy campaigns and plots in TV and radio programmes, to explain the benefits of insurance. Alongside developing market education other incentives, such as tax exemption, subsidies, and even compulsory cover, will be required to generate demand.

5.3.2 Innovation

Insurance innovation and new, less conventional partnerships are essential first steps to a truly global insurance market (KPMG Insurance Sector Report, 2012). Other innovative approaches to insurance, involve mobile phones or chip cards to provide policy details and therefore reduce distribution costs. One reason for Kenya's relatively high penetration rate is that the financial sector is reasonably well developed. Another potential driver is the fact that Kenyan companies have a strong capacity for innovation. Kenya was ranked 34th in the world, and second in Africa, for companies' innovative capacity in the GCI. This is particularly relevant for the insurance sector. According to Business Monitor International (BMI, 2011), Kenyan

companies have been more innovative than those in other African countries. For example, Kenyans can pay premiums via their mobile phones through platforms like M-PESA and Airtel Money. An innovative product launched in 2009 was Kilimo Salama, whereby farmers can insure their investments such as fertilizer and seeds against severe weather conditions. The Kilimo Salama project is a partnership between the Syngenta Foundation for Sustainable Agriculture, UAP Insurance, and the telecoms operator Safaricom. It offers farmers with protection against extreme drought and excessive rain, even for small plots of land. Payouts are based on how severe the insured event is, which in turn is measured at the nearest weather stations.

Takaful insurance, which is beginning to grow in the London insurance market, has been described as “Sharia Microinsurance” as it respects Islamic laws is another innovative product which is gaining much ground in the East African insurance market. It has registered significant growth since its inception. This product can be marketed to the local Islamic community who do not believe in conventional insurance (Amir and Hossain, 2015: Insurance Markets and Companies).

5.3.3 Partnerships with key stakeholders

Partnerships with NGOs, aid agencies, governments and companies can all be used to reach the people that need the cover and keep distribution costs down. For example, international organizations, NGOs and donors initiate and facilitate microinsurance market development in many countries. Donors typically support the research and development stages where neither insurers nor delivery channels have the ability or the will to invest in microinsurance. Donors also finance market education campaigns or finance the market studies that provide the quantitative basis for business strategies. This research is important, as risk data and information have been significantly limited to date, resulting in higher loadings to compensate for the uncertainties of the microinsurance market. Donor support also includes a variety of capacity building and technical assistance programmes, such as those offered by the Gates Foundation funded International Labor Organization Microinsurance Innovation Facility.

5.3.4 Growth initiatives

Most markets in the world remain untapped by insurers. It is estimated some 1.5 to 3 billion insurance policies are waiting to be sold to a rapidly growing market in the developing world (Business Monitor International, 2012). Given the projected growth figures for insurance

markets in developing countries there is still much growth potential yet to be fulfilled in Zimbabwe. To develop this potential insurer, you need strategies to understand the demands and characteristics of the market. They need to understand their customers and be able to create the right products that get sold in the right market segments. Most clients buy motor insurance but can still buy other available products to cover homes, businesses, liabilities and other risks. Demand can further be boosted if the unexploited informal market is targeted and developed, seeing that some respondents own assets and small businesses that they are not insuring. Business growth of over 10% per annum has been observed in developing countries recently and some believe that a seven-fold increase is possible over 10 years (KPMG Insurance Sector Report, 2012).

The study recommends that the compulsory insurance policies stipulated by the Insurance Act should be properly sold in the society and well publicized. Also, micro-insurance that is environment friendly, meaningful, relevant and affordable for different people should be designed so that insurance will take its rightful place and generate funds for economic development.

5.3.5 Regulation

Regulators and policymakers must balance the need to protect customers with encouraging industry innovation and growth. Products designed for the developing world must be tailored to their specific needs. Similarly, insurance regulations developed for traditional insurance markets will need to be adapted for developing countries, so they both protect local communities and encourage insurance markets to grow.

Adequate regulation should be targeted at providing institutional improvements, especially in risk management and product development of insurance companies. In 2011, the Association of Kenyan Insurers (AKI) released a strategic plan for the industry which focused on premium growth of up to 22% per annum. The plan is also quite relevant to Zimbabwe and listed the following methods through which this could be achieved;

- Simplifying products and creating innovative new ones;
- Customer education;
- Using social media and technology to reach the untapped lower end of the market;
- Promoting the image of insurers (currently in Kenya, there is a general lack of trust in insurers, similar to the situation in Zimbabwe);

- Improving the functioning of member companies; and
- Modernizing the Insurance Act.

The relationship between economic growth and short-term insurance development of Zimbabwe is limited and not direct. This is because the influence of insurance market development in performing the role of intermediation is hampered by some negative factors. These include low per capita income, lack of orientation of the importance of insurance, cultural values undermining the popularity of insurance and adequate regulatory framework for the insurance industry in Zimbabwe.

It is therefore recommended that the policies that will improve insurance market penetration through developing the supply chain to capture the critical mass population should be adopted in Zimbabwe. The lack of confidence of the average person in insurance can be reduced by removing the suspicion that claims would not be paid, which limits growth of the insurance market as they have to improve their business practice in this regard. On the part of insurance companies, they should use seminars, conferences, and advertisements to create public awareness for their products and other policies aiming at massive education of insurance consumers on the importance of buying insurance products should also be put in place.

5.5 Future Research

The survey findings could be enhanced by conducting the research on a larger sample of all the insurance companies in Zimbabwe, as well as by supporting evidence through interviews of both buyers and sellers of insurance products. The focus of the study could also extend to include non-buyers to find out the possible reasons why they do not buy non-life insurance products. The final model of this research can be adopted to study behaviors amongst buyers of non-life insurance products at country level, and even adapt the model to investigate the life assurance market.

To conclude, and to provide some insights for future research, recent literature has mostly analyzed the demand side of financial institutions, neglecting the supply side. In the future more attention should also be placed on the supply side of insurance industries, by analyzing and identifying factors that cause different degrees of cost and profit efficiencies across countries. This may further highlight factors that promote sound insurance growth. This would also give policymakers a more diverse range of tools on how to aid financial development and thereby foster economic growth.

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APPENDIX A: Letter of request

Date /.... /2021

To whom it may concern:

Dear Sir/Madam

Ref: Request for information for academic research purposes

My name is Biata Sibongile Ncube, a Fellowship Student at the Insurance Institute of Zimbabwe, Student Number 088557. I am undertaking a research titled – ‘**An analysis of the relationship between economic growth and non-life insurance development in Zimbabwe**’ as part of the Fellowship Program.

You have been selected as one of the respondents for the study. Kindly complete the questionnaire affixed. Assurance is hereby granted to you that all information solicited will be treated with confidentiality and will only be used for academic purposes. Should you require more information about the researcher, you can get in touch with the chairperson of the program, Mrs. Maria Jakata on +263779 394 357.

Your assistance will be greatly appreciated.

Yours faithfully

Biata S Ncube

Contact +263783233791

Email: biatancube@gmail.com

Appendix B- QUESTIONNAIRE

Disclaimer: *The information shall be used for academic purposes only*

Section A – Demographics (please tick the applicable description)

1. **Gender** Male [] Female[]

2. **Age** 20 - 29 years []
 30 - 39 years []
 40 - 59 years []
 60 years and above []

3. **Employment Status**
Formally employed [] Self-employed [] Unemployed []

4. **Highest Qualification**
“O” Level [] “A” Level [] Graduate []
 Post-Grad []

5. **Level of Monthly Income**
Below US\$500.00 []
US\$500 to US\$999 []
US\$1,000 to US\$2,499 []
US\$2,500 to US\$4,999 []
US\$5,000 and above []

Section B – Buying Patterns (please tick the applicable description)

6. Do you own, manage or hold in trust any of the following assets?

Vehicle [] Property [] Household Contents [] Business []

7. Which non-life insurance policies do you normally buy?

Personal Accident [] Motor Vehicle [] Home Insurance []
Business Insurance [] Farming [] Health Insurance []
Liability Insurance [] Other [] (specify_____)

8. How much do you spend annually on non-life insurance policies?

Below US\$250 []
US\$250 to US\$499 []
US\$500 to US\$749 []
US\$750 to US\$999 []
US\$1,000 and above []

9. What is your motivation in buying non-life insurance policies?

To protect myself against losses []
To comply with regulatory requirements []
To comply with bank loan requirements []
Other [] (specify_____)

10. Who influenced you to buy non-life insurance policies?

Family []
Relatives []
Colleagues and friends []
No one []

11. To what extent do you think the growth in GDP is influenced by the development of insurance?

Lesser []
Moderate []
Greater []
None []

12. Do you think the increase in the Gross Written Premiums influenced by the overall growth of the economy and vice-versa?

- Strongly agree []
- Agree []
- Neutral []
- Disagree []
- Strongly Disagree []

13. Give reasons for your answer above?

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

14. Do you think the change in the insurance penetration rate influenced by the overall growth of the economy and vice-versa?

- Strongly agree []
- Agree []
- Neutral []
- Disagree []
- Strongly Disagree []

15. Give reasons for your answer above?

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

16. Do you think the change in the insurance penetration rate influenced by the overall growth of the economy and vice-versa?

- Strongly agree []
- Agree []
- Neutral []
- Disagree []
- Strongly Disagree []

17. Give reasons for your answer above?

.....

Section C – Development of short-term insurance in Zimbabwe

18. In your view, please indicate how much you agree with the following statements in relation to the factors that affect development of short term insurance in Zimbabwe (1=strongly agree, 2=agree, 3= neutral, 4=disagree, 5=strongly disagree.

	1	2	3	4	5
High cost of premiums					
Lack of efficiency in claims settlement					
Poor customer service					
Lack of disposable income					
Lack of product variety					
The complicated nature of insurance products					
Distribution channels					

19. In your own view, what do you think the regulator should do to improve uptake of short-term insurance products in Zimbabwe?

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20. In your own view, what do you think your company or other non-life insurance companies should do to improve uptake of short-term insurance in Zimbabwe?

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21. Please give any other recommendations that you think if implemented would enhance the development of short-term insurance in Zimbabwe.

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THE END

